# Designing for Ajax Principles and patterns for rich interaction

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

# background

#### 10 JavaScript for Rich Internet Applications

Home Features Demos Documentation Downloads About

An open-source JavaScript library for creating rich internet applications. Rico provides full Ajax support, drag and drop management and a cinematic effects library.

#### WWIIGALD-Con

#### ...... BACKGROUND

Rico is a Spanish word meaning rich. The goal of Rico is to provide a rich experience for web sites using Ajax technology.

Rico is just one small part of a larger effort at Sabre Airline Solutions to create a suite of rich internet components, behaviors and effects for the web application space

The library is a fully object-oriented JavaScript library. Recently we refactored the library to extend the excellent prototype. is effort from the Ruby on Rails folks.

#### **OPEN SOURCE**

Rico is provide free and open-source (Apache 2.0 License) for either your personal or commercial use. Sabre Airline Solutions retains the copyright on the Rico code produced at Sabre.

#### BROWSER SUPPORT

Rico has been tested on IE 5.5, IE 6, Firefox 1.0x/Win, Camino/Mac, Firefox 1.0x/Mac. Currently there is no Safari or Mac IE 5.2 support. Support will be provided in a near future release for Safari

#### AJAX SUPPORT

Aiax is the term that describes a set of web development techniques for creating interactive web applications. One of the key ingredients is the JavaScript object XmlHttpRequest. Rico provides a very simple interface for registering Ajax request handlers as well as HTML elements or JavaScript objects as Ajax response objects. Multiple elements and/or objects may be updated as the result of one Ajax request.

Want to get started learning? Check out our demos and then read our two Ajax tutorials on the Documentation page.

#### DRAG AND DROP

Desktop applications have long used drag and drop in their interfaces to simplify user interaction. Rico provides one of the simplest interfaces for enabling your web application to support drag and drop. Just register any HTML element or JavaScript object as a draggable and any other HTML element or Jav handles the rest.

#### CINEMATIC EFFECTS

When actions are no longer occurring just at the page level but within required to clue the user on what has transpired. Cinematic effects s transitions can communicate change in richer ways than traditional v Rico provides several cinematic effects as well as some simple visual

#### BEHAVIORS

Take some raw HTML and sprinkle in some behaviors and what do you Rico you can get an Accordion component like those found in Macron Laszlo. Just nest some DIVs and with one line of JavaScript turn your an accordion. And the latest behavior is the LiveGrid. LiveGrid allow connect an Html table up to a stream of Ajax responses. Ajax reques automatically called during table scrolling. The result is now Html tab an unlimited amount of data scrolled into view on the fly as needed! A behaviors are planned!

#### Developer Network Home Help

- NAVIGATE

Tabs

EXPLORE DATA

GIVE FEEDBACK

CUSTOMIZE

Drag and Drop

Modules

In Page Editing

CALL ATTENTION

IMPROVE READABILITY

Ratings & Reviews

GROUP RELATED ITEMS

ORGANIZE SCREEN/PAGE

**Review Architecture** 

Sliders

Drag and Drop

Ratings & Reviews

Auto Complete

Calendar Picker Pagination

Item Pagination

Search Pagination ORGANIZE DATA

Architecture Review

Breadcrumbs

Fly-out Menus

Horizontal Bar Hub and Spoke Left Navigation

> Module Tabs Navigation Tabs

Faceted Navigation

Site Search Search

#### TAHOO DEVELOPER NETWORK

#### Design Pattern Library

Yahoo! Developer Network > Design Pattern Library

#### Welcome

Welcome to the Yahoo! Design Pattern Library. We are very happy to be sharing our library with the design and development community. This is our first drop of what we hope to be a monthly release cycle for the publication of patterns. In many cases we have bundled the patterns with pointers to related code from the Yahoo! User Interface Code Library. We hope this is a useful resource and look forward to your feedback.

#### What's a Pattern?

A pattern describes an optimal solution to a common problem within a specific context. more ...

#### Recent Patterns

To: yul Cc: Yusef Jones <yusef@s Yusef Smith <vusefs@ Auto-Complete The user needs to enter an item into a text box which could ambiguous or hard to remember and therefore has the potential to be mis-typed.</vusefs@ </yusef@s 	Travel > Guides > North Ameri         1ca > United States > New York         vew York City > Things to do         Breadcrumbs         User needs to navigate         potentially large quantities of         information efficiently,         without becoming lost.	▼ Ask Yahoo!       Thursday, February       ▼ Weather, have hove       The user needs needs to re-arrange the layout of modules on a web page directly with the mouse.
AP Reuters AFP USATOL - Cargo Ship Blocks Sue: - International Observers - Dell Shews Divide Ame	News Home U.S. Business W Photos Opinion Local News Odd N Search:	1 - 5 of 32 First   < Prev   Next 32 First   < Prev   Next >   Last
Module Tabs The user needs to navigate through one or more stacked	Navigation Tabs The user needs to navigate through a site to locate	Object Pagination The user needs to view data items from a potentially large

items from a potentially large set of sorted data that will not be easy to display within a single page



#### Writing a Review User wants to share her

opinion with others about an object (place, person, thing) in greater detail than a simple rating.

100	
22	
238	

page

See Rico in Action!

Rating an Object Writing a Review PERFORM ACTION

Drag and Drop Objects

through one or more stacked panes of content without refreshing the page.

content and features and have clear indication of their

current location in the site. \*\*\*\*

flow they are involved in.



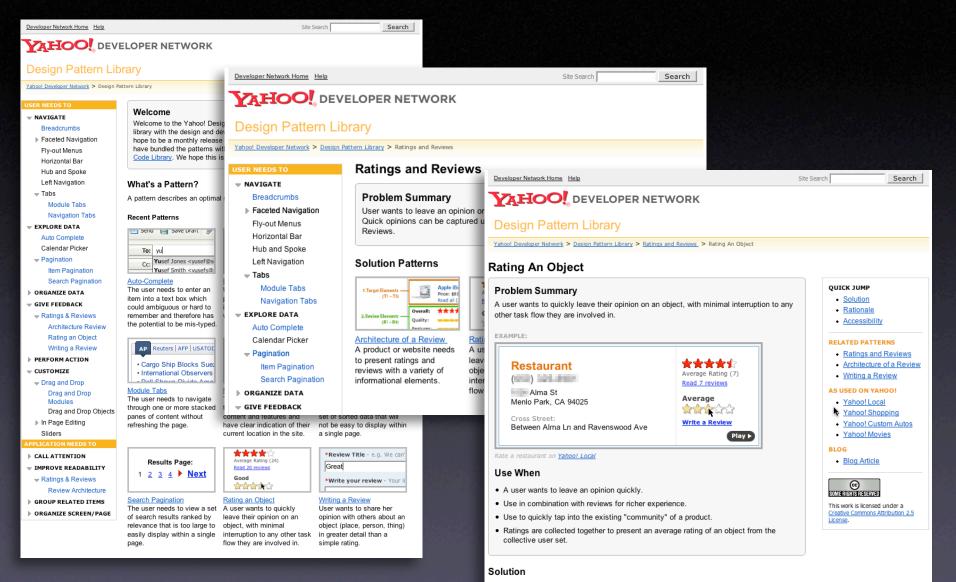
The user needs to view a set A user wants to quickly leave their opinion on an relevance that is too large to object, with minimal easily display within a single interruption to any other task



## Rating an Object



# developer.yahoo.com/ypatterns



#### Show clickable items (most often used are stars) that light up on rollover to infer clickability.

# surfacing vocabulary

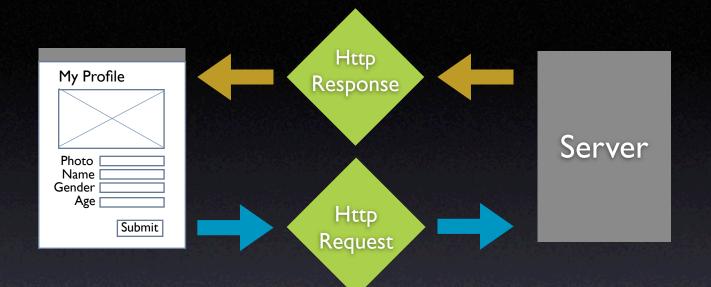
## current patterns

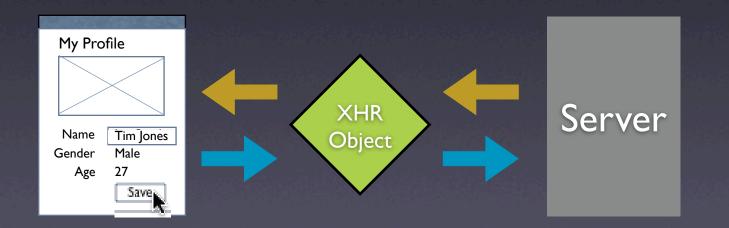
Breadcrumbs. Module Tabs. Navigation Tabs. Auto Complete. Pagination. Item Pagination. Search Pagination. Ratings and Reviews. Architecture of a Review. Rating an Object. Writing a Review. Drag and Drop. Drag and Drop Modules. Transition. Dim. Brighten. Cross Fade. Contract. Expand. Fade In. Fade Out.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

## rich patterns

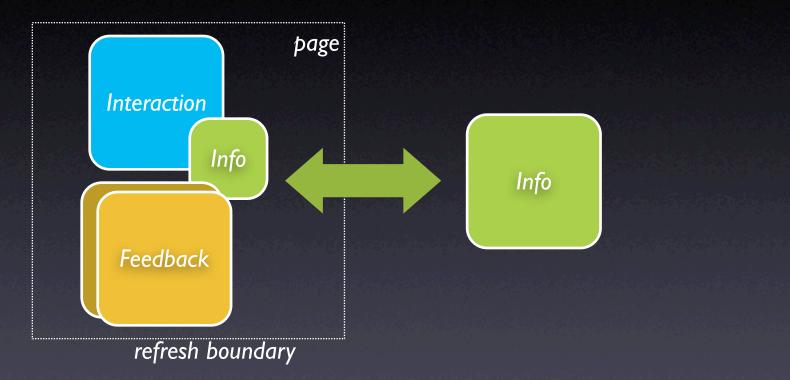
Drag and Drop. Drag and Drop Modules. In Page Editing. In Page Custom Editing. Direct State Editing. Grid Cell Editing. Inline Custom Editing. Inline Tag Editing. Popup Custom Editing. Slide-out Custom Editing. Inline Text Editing. Persistent Portals. Inline Reordering. Indication. Busy Indication. Cursor 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.

# classic model. rich model.

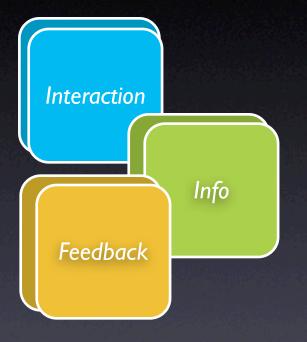




## interaction. feedback. information.



## interaction + feedback + information = richness





# design principles for richness



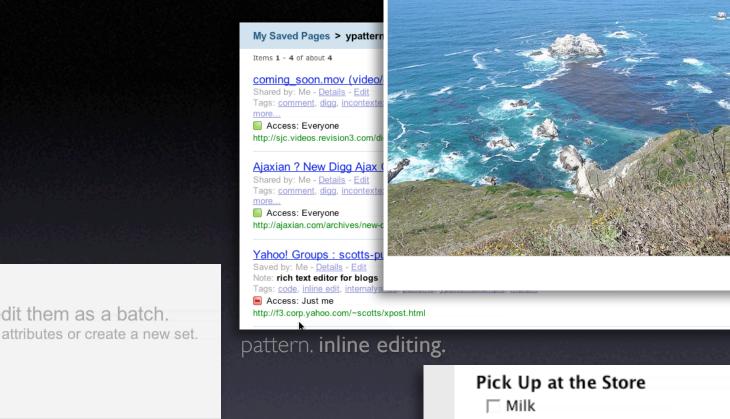
# interaction principles

# principle. make it direct.



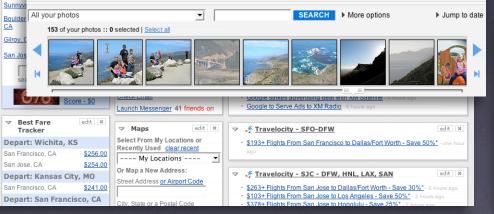
#### pattern. in-page action.

Drag photos here to edit them as a batch. You can then change any photo attributes or create a new set.



**Rocky Waters** 

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#### pattern. in-context tools.

pattern. drag & drop.

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#### make it direct

## **Inline Editing**

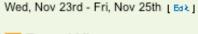
Use inline forms where possible Use lightweight popups for ancillary information



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



#### Scheduled Items Wed 11/23/05 (day 1) - Yosemite Natl Pk, Yosemite National Park Solve Yosemite Lodge View | Delete From \$97.00 to \$146.00 per night. •Reserve Now \$59-252-4848 Yosemite Natl Pk, CA 95389 United States In the valley of Yosemite National Park Notes: [ 6d k ] Tags: [ 6d k ] Dates: [ Add ]



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north of Wawona, and just south of the Valley Floor. This popular spot

is the most photographed view of the valley. It received .....

#### Yahoo! Groups : scotts-pub Post Message

Saved by: Me - <u>Details</u> - <u>Edit</u> Note: **rich text editor for blogs** Tags: <u>code</u>, <u>inline edit</u>, <u>internalyahoo</u>, <u>patterns</u>, <u>ypatternexample</u>, <u>more...</u>

http://f3.corp.yahoo.com/~scotts/xpost.html

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make it direct

## In-context tools Same as context menus

Only good for single objects Can actually slow you down

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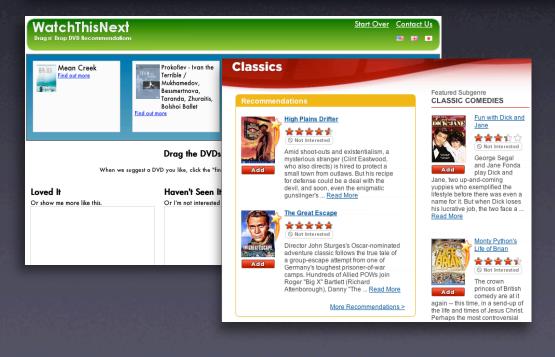
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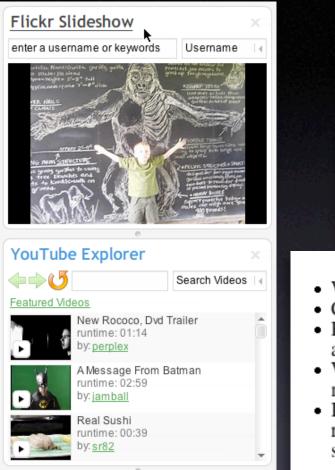
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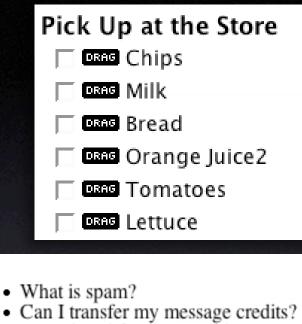


### Use Drag & Drop where appropriate

Not for simply setting an attribute Don't construct artificial visual constructs

#### make it direct





- How do I delete my HandyPay account?
- What if I didn't receive my full message package?
  I need to contact customer care
- I need to contact customer care regarding the Compose Text Message service.

## Use Drag & Drop where appropriate

Not for simply setting an attribute Don't construct artificial visual constructs Good for layout changes Needs transitions

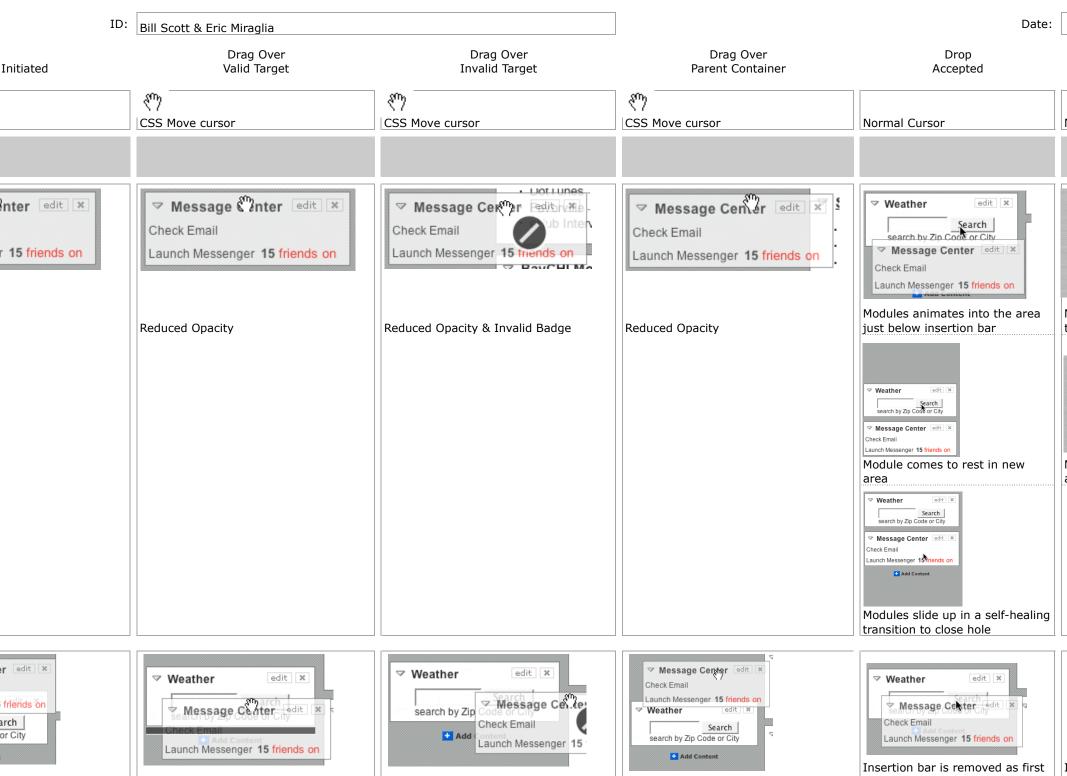
#### make it direct

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**Drag and Drop Modules - Interesting Moments Grid** 

Take care of the interesting moments

#### Drag and Drop Modules - Interesting Moments Grid



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# principle. keep a light footprint.

## pattern. in page action.

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pattern. rating an object.

Fun with Dick and

pattern. remembered collections.

## **Remove the "pain points"**

Shorten the path Keep actions immediate and light Use hover, blur, focus; avoid heavy events

#### Classics



Add

#### **High Plains Drifter** \*\*\*\* S Not Interested

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



Add

#### The Great Escape \*\*\*\* S Not Interested

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 >





George Segal and Jane Fonda Add play Dick and

Jane, two up-and-coming vuppies who exemplified the lifestyle before there was even a name for it. But when Dick loses his lucrative job, the two face a ...





#### Fixing the Mighty Mouse

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.

(a) 60 comments blog this email this category: apple

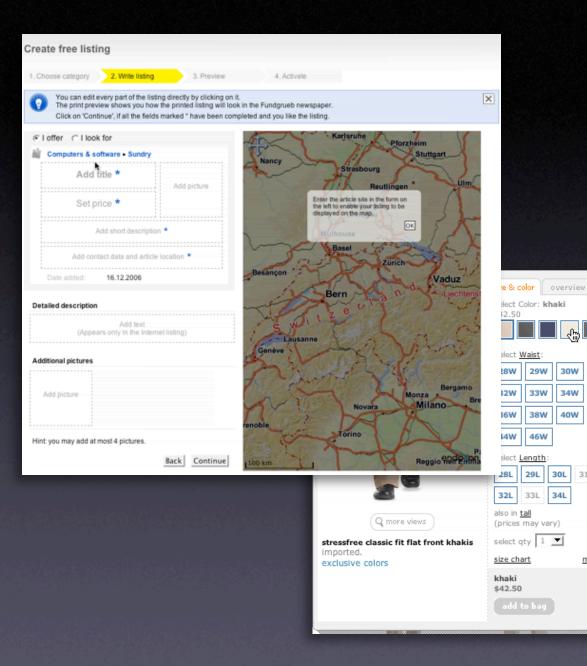




princes of British comedy are at it

Perhaps the most controversial

## keep a light footprint



## **Design for engagement**

My Grade:

Rate this

Movie!

Select grade

to the right

write a review

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The Critics:

в-

14 reviews

Yahoo! Users:

в+

13199 ratings

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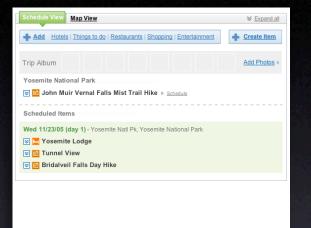
Use invitations & feedback Treat it like an impusle aisle Theory of fun

# principle. cross borders reluctantly.

## pattern. on-demand scrolling.

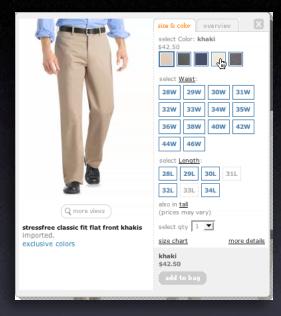
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What's your Credit Score? Netflix-Try Free! No Late Fees Online Degree Programs			

## pattern. in-context expand.



Find symbo

### pattern. inline assistant.

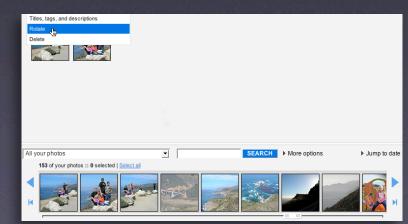


## pattern. hover details.

pattern. nover details.	From	DOWIONES		-	
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Top Stories	LATEST NEWS [PRLS] Pe	erless Systems	avg daily volume 104K shar	'es	
AP Reuters   AFP   USATODAY.com   CSMor	Dow targets red		; Intel rallies on favora	able legal ruling	3
W.Va. Gov. Seeks Halt in Coal Produ     Insurgents Thwarting Irag Reconstruc	Last Update: 1:04 PM ET Se	h p 27, 2006		Print <u>E-mail</u> RSS M Digg it	Disable live quotes
- House Clears Budget-Cut Bill for Bus	gains for Intel Corp., McDo	hald's and other	ose Wednesday, with all eyes s put the blue-chip index with 2.10, +0.4%) rose as much a	hin striking distance	Industrial Average, as of a new high.
<ul> <li>Police Apologize, Drop Charge Vs. SI</li> <li>'Commander in Chief' Takes Six-Weel</li> </ul>	11,720.77, just shy of its rece 18 of 30 components contrib	ord high close of uting to gains.	11,722.98. It was last up 39 p	oints at 11,708, with	Dow Jones Industrial Aver: 11,707.89 +38.50 +0.33% 00HP2 +2.02 +2.02 +1.52
» All Top Stories from AP	the S&P 500 Index ( <u>\$SPX</u> : "Why shouldn't the market be	1,338.79, +2.45 e going up?" say	8, +5.84, +0.3% ) was up 7 p , +0.2% ) gained 2 points to 1 s Art Hogan, chief market strains s Art Hogan, chief market strains	1,338. tegist at Jefferies &	+41.0% +0.5% +0.0% +0.0% +0.0% +0.5%
MORE TOP NEWS: U.S. News & World Re	dividend and some good ne Hogan said the market was	ws for Intel. Ther shrugging off a w	nterest ratês. You have McDo e's more good news than bad reak durable goods report bec	news out there.' cause it is backward	© BigCharts.com 1:17PM ET
		uities, advancer	ing orders for big-ticket items s outpaced decliners by 21 to Nasdaq.		Dov Jones Industrial Aver: 11,707.57 +38.18 +0.33%
	+2.01, +0.8% ), biotech (\$	BTK: 668.93, +1	+2.45, +0.5% ) , networkers ( 8.68, +1.3% ) and oil ( <u>\$OIX</u> : .76, +2.1% ) stocks put in sol	585.28, +6.57,	12,000 10,000 8,000 6,000

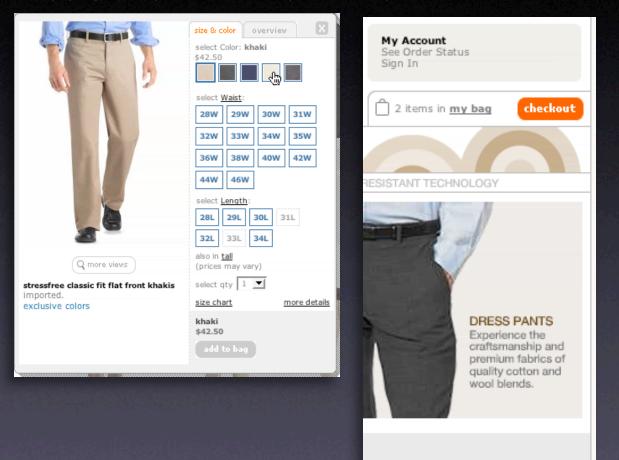
Market Watch

## pattern. lightweight popup + lightbox.



## **Rethink process flows**

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



### cross borders reluctantly

## **Re-think paging**

Use scrolling for ''owned'' data Watch out for dual scroll bar issue Hybrid of paging & scrolling

#### FEATURED RECIPES









0....

1.4

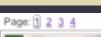
Chewy Chocolate Gingerbread Cookies

Pear Bruschetta with Hazeinut Cream

ith Roasted Asparagus with Pine Nuts

gus with Easy Ch Chicken

Easy Cheesy Stuffed Chicken



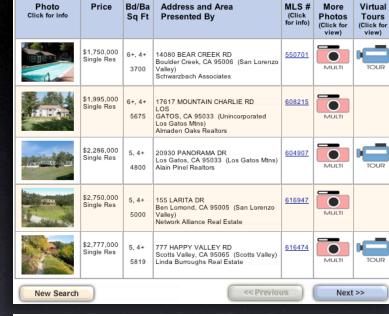
#### Getting it off his chest

Zinedine Zidane apologizes for using his head, but says he couldn't stomach slurs toward family. » Story

All the rage on the Web A denial
 All Final highlights, including head-butt

-

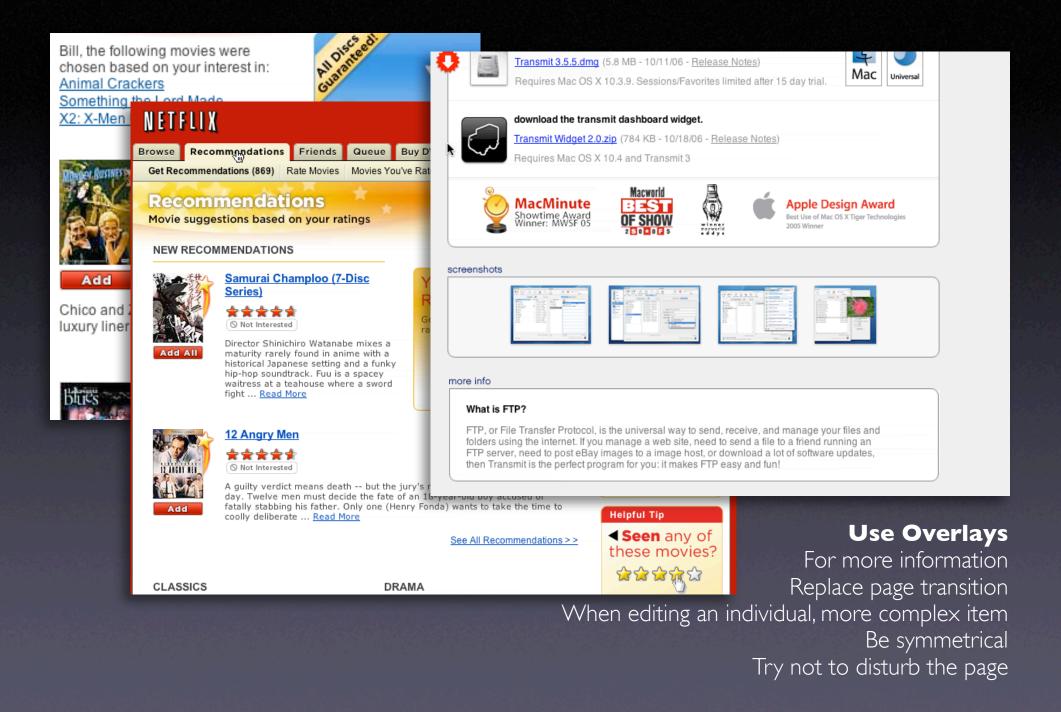
Lonely elephants baffled by post-Katrina life Scientists study gorilla habitat Some birds stay aloft up to 10 years Inflation soaring high Fed wants banks to come into compliance Life after death - is there proof?

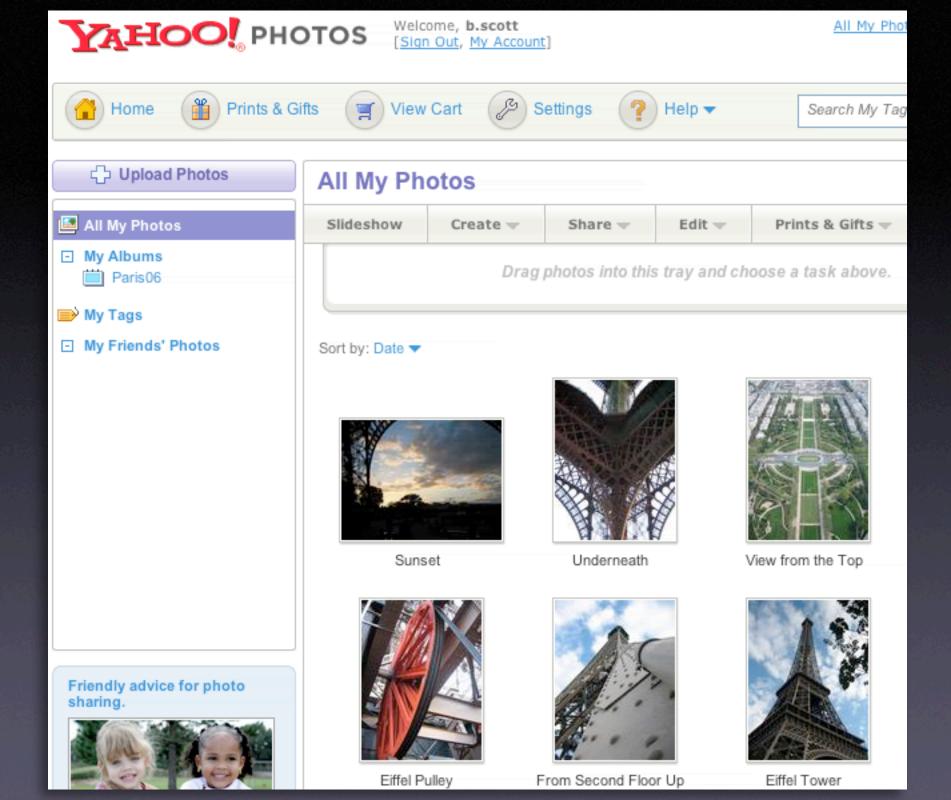


#### RICO AJAX SEARCH

LiveGrid Demo	onstration				Powered by 1	rahoo	! Search	
Select Search Catego	ry: Web	Images	Videos					
Search Images:	flowers	•				_	Search Yahoo!	
Search Results					Results 1 - 5	i of ab	out 1580284 for flowers	1
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### cross borders relunctantly





## cross borders relunctantly

Schedule View Map View	
Add Hotels   Things to do   Restaurants   Shopping   Entertainment	• Create Item
Trip Album	Add Photos »
Yosemite National Park	
Wed 11/23/05 (day 1) - Yosemite Nati Pk, Yosemite National Park         Yosemite Lodge	
<ul> <li>☑ Tunnel View</li> <li>☑ Bridalveil Falls Day Hike</li> </ul>	

## Use in-context expands

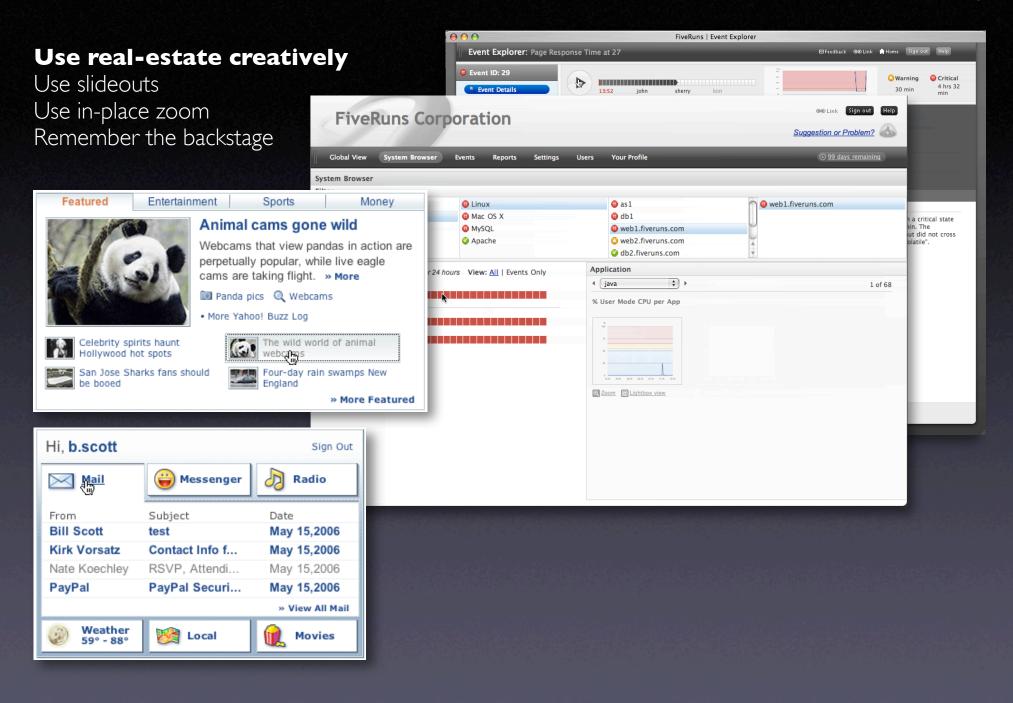
For editing part of a collection Need to see surrounding context For managing content modules

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_scon.mov         Ajaxian ? New Digg Ajax Comment System         Shared by: Me - Details - Edit         Tags: comment, digg, incontextexpandpatte, inlinepageeditpatter, ratinganobjectpatter, more         P Access: Everyone         http://ajaxian.com/archives/new-digg-ajax-comment-system - My cached copy         Yahoo! Groups : scotts-pub Post Message	ort by: Date Saved   <u>Title</u>   URL Shared at 4:49 PM PST
Shared by: Me - <u>Details</u> - <u>Edit</u> Tags: comment. digg. incontextexpandpatte, inlinepageeditpatter, ratinganobjectpatter, Access: Everyone http://sjc.videos.revision3.com/diggnation/coming_soon.mov Ajaxian ? New Digg Ajax Comment System Shared by: Me - <u>Details</u> - <u>Edit</u> Tags: comment. digg. incontextexpandpatte, inlinepageeditpatter, ratinganobjectpatter, more Access: Everyone http://ajaxian.com/archives/new-digg-ajax-comment-system - <u>My cached copy</u> Yahoo! Groups : scotts-pub Post Message	Shared at 4:49 PM PST
Access: Everyone http://sjc.videos.revision3.com/diggnation/coming_soon.mov  Ajaxian ? New Digg Ajax Comment System Shared by: Me - Details - Edit Tags: comment. digg. incontextexpandpatte, inlinepageeditpatter, ratinganobjectpatter, access: Everyone http://ajaxian.com/archives/new-digg-ajax-comment-system - My cached copy  Yahoo! Groups : scotts-pub Post Message S	Email - IM - Delete
Shared by: Me - <u>Details</u> - <u>Edit</u> Tags: comment, digg, incontextexpandpatte, inlinepageeditpatter, ratinganobjectpatter, more	
Yahoo! Groups : scotts-pub Post Message s	Shared at 4:49 PM PST <u>Email</u> - <u>IM</u> - <u>Delete</u>
	aved on February 16, 2006
Saved by: Me - <u>Details - Edit</u> Note: rich text editor for blogs Tags: <u>code</u> , inline edit, internalyahoo, patterns, ypatternexample, more El Access: Just me	<u>Email</u> - <u>IM</u> - <u>Delete</u>
http://f3.corp.yahoo.com/~scotts/xpost.html	

		edit 🖂 🛛
31.89	-0.01	(-0.03%)
12445.52	+28.76	(0.23%)
2457.20	+3.35	(0.14%)
9140.39	-6.81	(-0.07%)
1427.09	+1.60	(0.11%)
	12445.52 2457.20 9140.39	12445.52 *28.76 2457.20 +3.35 9140.39 -6.81 1427.09 *1.60

indicated. Disclaimer

## cross borders relunctantly



# key principle

Interaction

# prefer direct, lightweight, in-page interaction



# feedback principles

# principle. give live feedback.

#### pattern. live suggest.

1. Enter your question You can ask 5 more questions today.	Ask Your Question
	You can ask 5 more questions
2. Add details (optional) No spam, please! When in doubt, please refer to our community guidelines.	No spam, please! When in doubt, please refer to our

#### pattern. auto complete.

						Show BCC
						Plain Text
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Check Mail

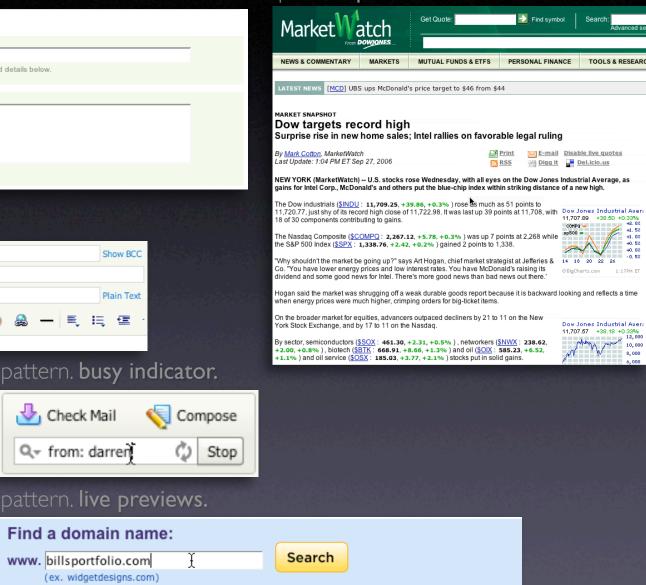
Q from: darren

www. billsportfolio.com

(ex. widgetdesigns.com)



### pattern. periodic refresh.



## give live feedback

## Keep the goal in mind

Design for relevancy Is it narrowing or distracting



#### Instant Search BETA

Search the Web

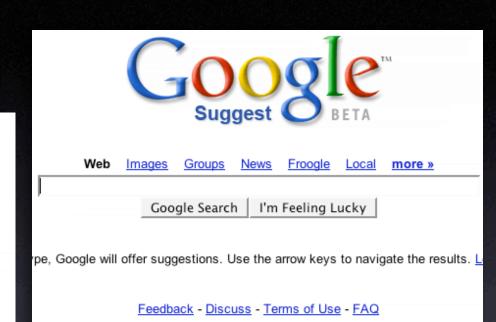
Instant Search gives you answers as you type -- no more waiting!

Why feel lucky when you can be right? With Instant Search, results instantly appear for <u>Yahoo! Shortcuts</u> 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



©2006 Google

(About this page)

SPONSOR RESULTS

## Keep the goal in mind

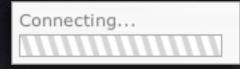
Design for relevancy Is it narrowing or distracting? Use feedback to boost confidence Let the user iterate where possible

#### alltheweb Results 1 - 10 of about 8,620,000 for monterrey Did you mean: monterey o o o livesearch o o o SPONSOR RESULTS Options Go to ... Help Save on Monterey Hotels at Expedia.com Monterey - Weichert www.expedia.com Save up to 50% on Monterey hotels at Expedia.com, your View Color photos, Virtual Tours and one-stop... Thousands of Open Houses. monterrey Monterey Vacations with Travelocity weichert.com www.travelocity.com Get access to special Monterey rates when you book your monterrey mexico flight and... See your message here ... monterrey nl mexico News Results for monterrey FC Dallas traveling roster to Monterrey - OurSports Central - Jul 24 6:16 PM arena monterrey Yahoo! Shortcut - About tec de monterrey tecnologico de monterrey Yahoo!'s: Seeing bad search results or ads for this query? Report them. Bucket test: NONE monterrey nuevo leon All About Monterrey P monterrey mexico map City guide includes information about hotels, restaurants, nightlife, universidad de monterrey entertainment, maps, and more. ... Monterrey is a unique city which is often called the richest city in México. Monterrey is also a powerhouse in the cablevision monterrey business ... www.allaboutmonterrey.com ▶ Refine Search Monterrey - Wikipedia, the free encyclopedia Pa 66 Monterrey is the capital city of the northeastern Mexican state of Nuevo León and Tell a Feedback the municipal seat of the municipality of the same name. ... The divided highway Eriend Monterrey-Saltillo-Matehuala-Mexico City is the main land ... Nuevo Laredo-Mexico City, Monterrey-Tampico, and Monterrey-Pacific (Mazatlán). Passenger trains ... Quick Links: Geography - Government, Transportation, and Public Safety - Industry and business en.wikipedia.org/wiki/Monterrey

International Conference on Financing for Development-2003-main

give live feedback

**Shape user perception** Make time pass faster Make application feel more responsive



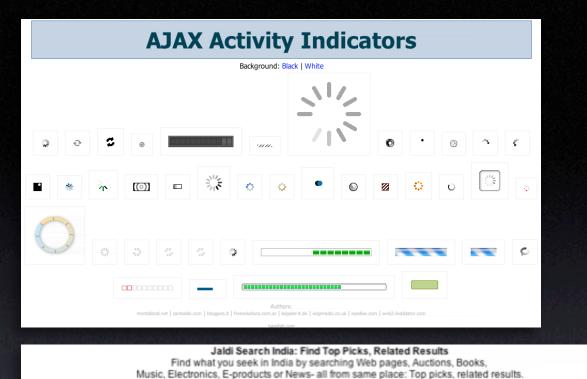




## give live feedback

### **Prevent errors before-hand**

Ounce of preventive design worth pound of error-handling Use live-previews Look before you leap



#### give live feedback



Search

E-products

### Ajax - search results

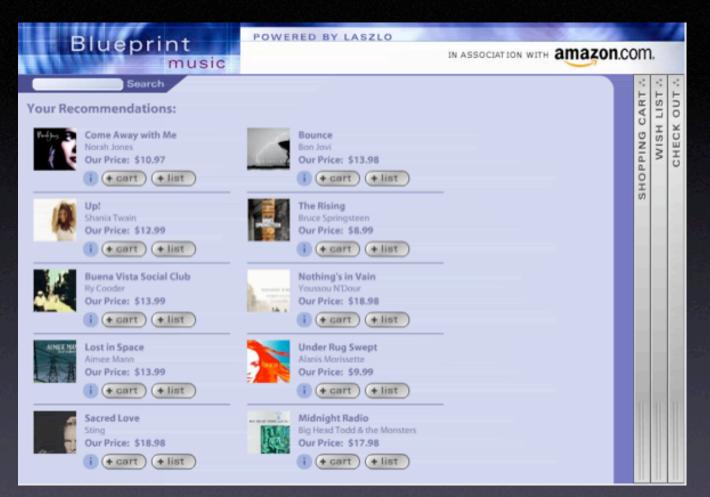
Ja.

#### Keep feedback focused

jΙΥ

Use laws of proximity in context feedback Respect feedback bandwidth Reveal relevance just-in-time Avoid side-noise (periphial distractions)

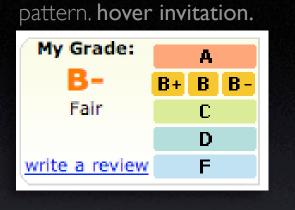
Search: Web pages



#### Keep feedback focused

Use laws of proximity in context feedback Respect feedback bandwidth Reveal relevance just-in-time Avoid side-noise (periphial distractions) Use nuance

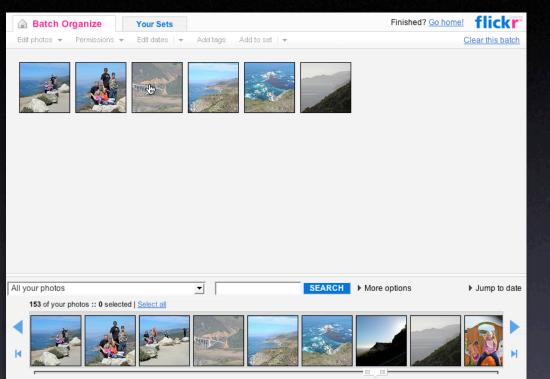
## principle. offer an invitation.



#### pattern. tour invitation.

Search 2	Find it 3	Get Personal.	Next »	<b>0</b>	Close 🗵
		Ya	hoo! Tech: TV ture-up		by Verizon Wireless.
	Search:	Video   Audio   Directory		Web Sear	_
My Yanool My Mai		_			Page Options 💌
GeoCities Groups	smarter	Money •od nroe and breeze through t Hotel. * More	Hi, b.scott Mail Weather 59*-88*	Hessenger	Sign Out
Kids     tabs to narrow       Haps     Search the W       Music     Search the W       Personals     Click a tab to Images, Vide       Photos     Try Yahool A       Real Estate     real answers		orid of animal an assamps New > More Peatured		COOL TONES OTOROLA PHON	IES
Shopping Sports	Next		E0121	Pepsi Cool Tones	

#### pattern. drop invitation.



#### pattern. tooltip invitation + hover invitation + cursor invitation.

💽 ADD 🖓 SEND TO 🔲 ADD 🚚 BLOG 🍭 ALL 🐋 ORDER ROTATE 🔿 DELETE X	
Add item or <u>I'm done adding items</u>	
Make a new list	

#### Discoverability

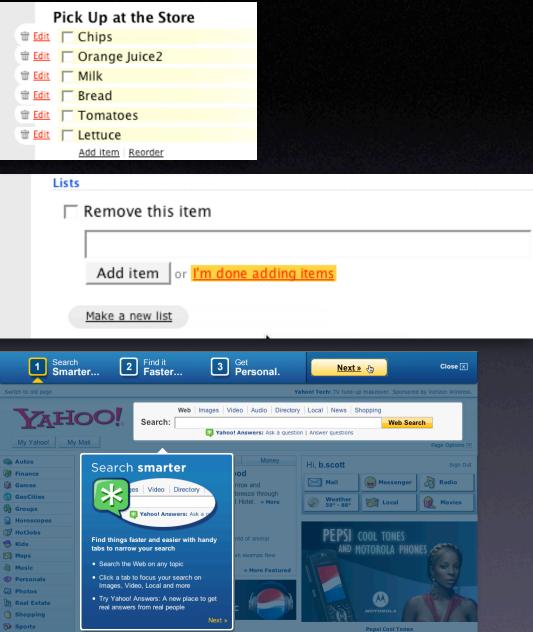
No easy answer Use the hover to reveal interaction Use the familar to teach the new Tours are generally a band-aid Can't flag all interactions



State park near our home in San Jose

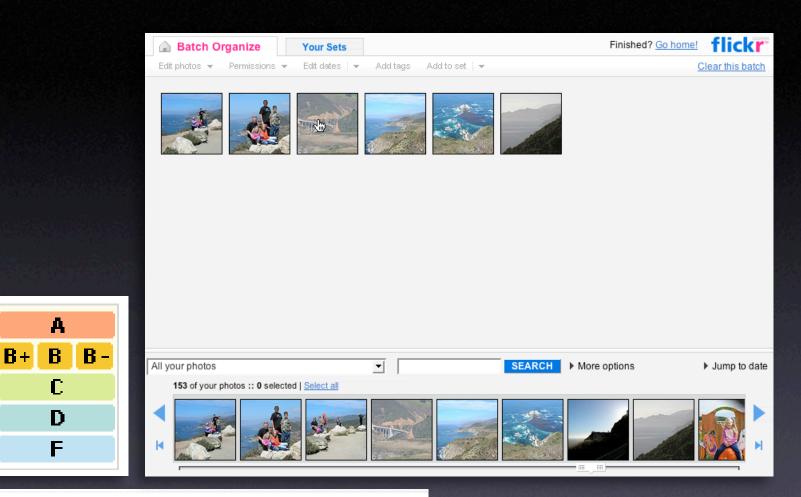
5 photos | Add a comment?

Photos are from 22 Oct 05.



<b>17%</b> Tue 12/05/06 9:04 AM	<b>40°</b> San Jose, CA 🛺 H 67° L 41°	WED	Bridge the new with the old Hyperlinks as actions Reveal with hovers
	107 641	07 45	Drop down clues
			Pick Up at the Store         Milk         Orange Juice         Tomatoes         Lettuce         Bread         Chips         Intzilla pro says:        with biscuits and gravy and all the fixins         Posted 16 hours ago. (permalink.)
- Donovan who?, Garcia leads Eagles	to win (AP)		Add your comment
Arenas, Wizards end Mavs' winning	streak (AP)		
<ul> <li>Turco, Stars end Sharks winning street</li> </ul>	eak (AP)		
<ul> <li>No. 11 Wisconsin beats Winthrop in</li> </ul>	OT (AP)		
<ul> <li>Redskins place faith in Suisham after</li> </ul>	r releasing Noval	(Reuters)	) (Some HTML is OK.)

#### offer an invitation



### Park near our new home

My Grade:

R-

Fair

write a review

🛃 ADD 🎁 SENDTO 🔲 ADD 🚚 BLOG 🍭 ALL 🐋 ORDER ROTATE 💭 DELETE 📈



#### Make it inviting

Treat it as a welcome mat Use hover, cursor, tooltip, and page Keep the noise down To see a product preview in action, hover over the link below.

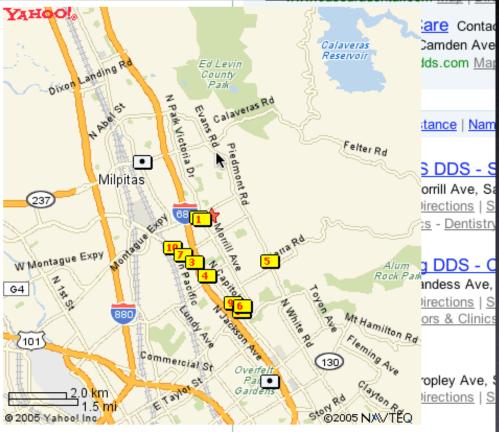
Forty Associates recently added product previews to their Web site as part of a small beta program. During the beta, visitors to Associate sites who viewed a product preview clicked through to Amazon.com over 4% of the time; those clicks resulted in a purchase nearly 6% of the time.

Now we're opening the beta up to all Associates to further improve product preview-enhanced link will receive a \$5 Amazon gift certificat testing product previews.

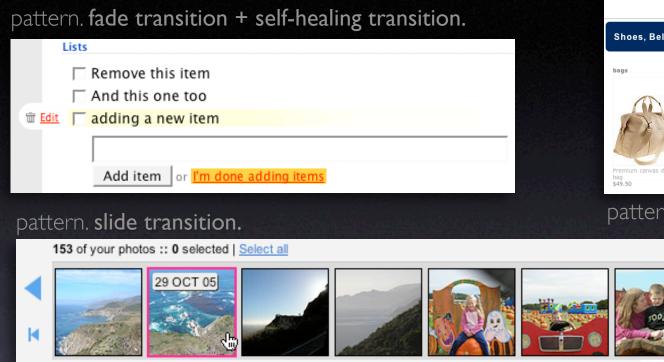
Don't worry if you don't already have Basic Display Product Links on your Web s process. <u>Click here</u> for answers to questions you might have about the beta pro

#### Keep actions out of it

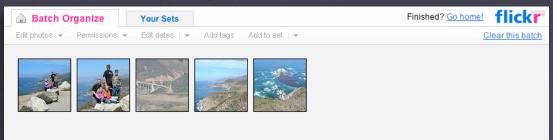
Let the user feel free to explore Don't proselytize

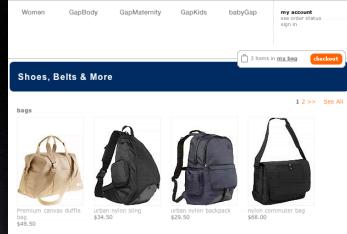


### principle. show transitions.



#### pattern. active spotlight.





#### pattern. zoom box.

#### show transitions

#### Speak to the brain

Understanding attention processing



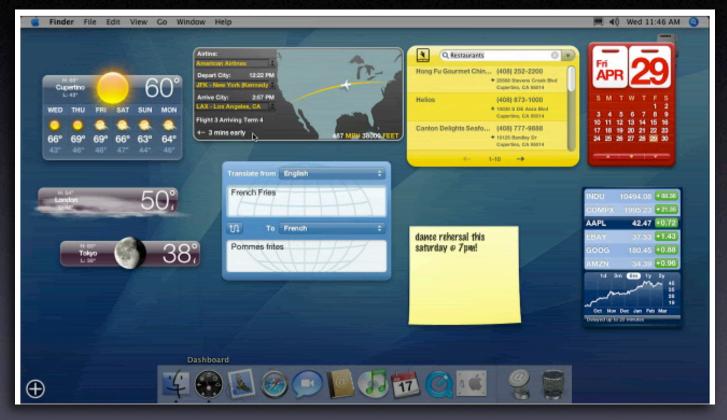
Tips & Tools for Using Your Brain

Tom Stafford & Matt Webb Foreword by Steven Johnson, author of Mind Wide Open

O'REILLY\*

#### Speak to the brain

Understanding attention processing Sending the wrong message

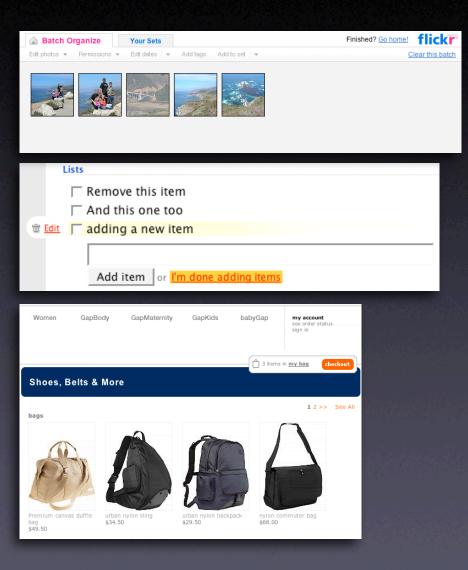




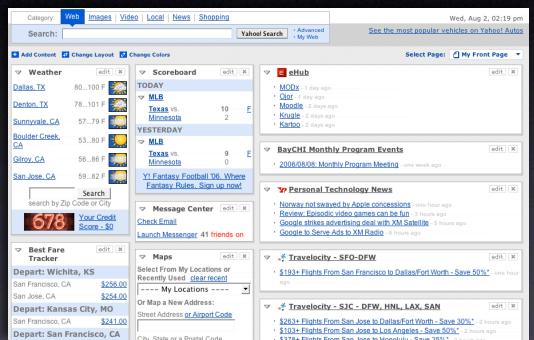
#### What you can communicate...

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









#### Keep it sane

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

### key principle

Feedback

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



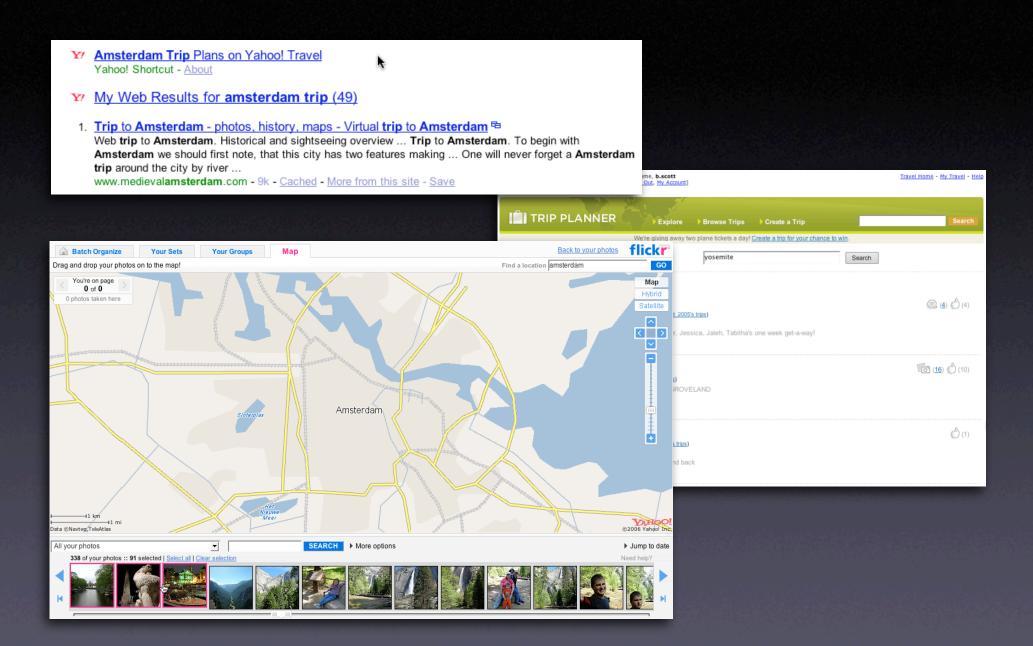
# information principles

## principle. think in objects.

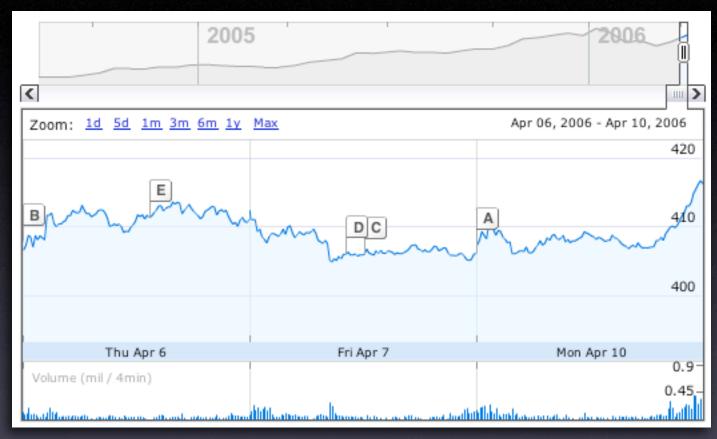
Schedule View Map View	
Add Hotels   Things to do   Restaurants   Shopping   Entertainment	<u>Create Item</u>
Yosemite National Park Solution States Solution States Notes: [Ed≿] Dates: [Add] Solution States Notes: [Ed≿] Dates: [Add] Schedule   View   Dele Schedule   View   Dele Schedu	te
Scheduled Items	
Wed 11/23/05 (day 1) - Yosemite Nati Pk, Yosemite National Park	

pattern. shareable object.

#### think in objects



### principle. tie information to interactivity.



pattern. multi-variate views.

#### tie information to interactivity

#### Think "deeper interaction"

100

100

-

GO

Multi-variate data

Enter symbol(s)

COMPARE TO:

COMPETITORS

INDEXES

RECENT

DELL INC (DELL)

HEWLETT PA... (HPQ)

MICROSOFT... (MSFT)

DOW JONES (^DJI)

NASDAQ (^IXIC)

S&P 500 (^GSPC)

MORE INDEXES

DOM LONGO (AD II)

View Quote Data: The data

row above the chart details

quote info on the primary

symbol you are plotting.

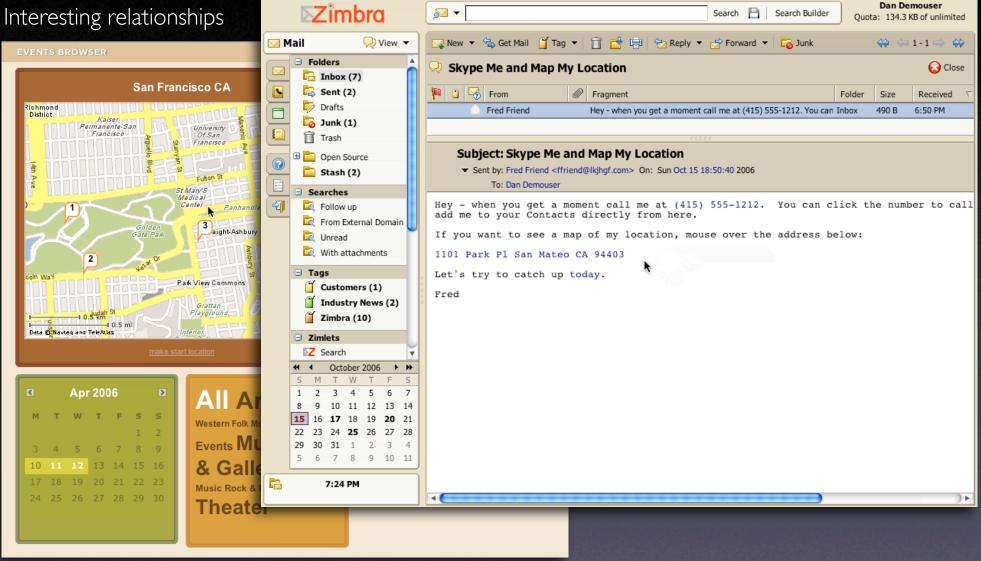
ADD SYMBOL(S)

CHART TIPS

#### Farecast Know When to Buy Home Sign Up for Email All Times (Listed) Select Times (Grid) Learn more about List View FINANC Results for: Planning Tools **Fare Prediction** Fare History Leave: All Times Flexible? Fares from \$325 87-Day Low: \$189 Avg Low: \$356 GET CHART San Jose, CA (SJC) \$575 Track this trip with RSS 🔝 Fri, Oct 20 2006 Lowest fares rising \$50+ \$495 on average within departure date \$415 Return: All Times \$335 Dallas, TX (DFW) Confidence: 56% - A \$255 Dallas Hotels Sat. Oct 28 2006 \$175 AAPI Tip: Buy Now. 86 Days Ago Now Adults: 1 Change Search Dallas TX Hotel - Orbitz Sort Dallas hotels by price, distance & star rating. Orbitz and Go. [ Reset ] Price • Airline Airport Departs Arrives Stops Refine Results Book Dallas Texas Hotels at Showing 201 of 201 options SJC>DFW 7:15a 2:07p 1 | 4h 52m Multiple Carriers \$559\* CheapTickets flight details Save with CheapTickets® Best orbitz.com DFW>SJC 12:50p 4:40p 1 | 5h 50m Price Guarantee on hotels - Price Range book now. SJC>DFW 7:15a 2:07p 1 | 4h 52m \$559\* Multiple Carriers www.cheaptickets.com flight details orbitz.com DFW>SJC 12:50p 4:40p 1 | 5h 50m Dallas Inns \$559 \$1393 \$1393 Let Inns.com help you find SJC>DFW 7:15a 2:07p 1 | 4h 52m \$559\* Multiple Carriers unique lodging in Dallas Texas. flight details orbitz.com DFW>SJC 11:30a 4:40p 1 | 7h 10m Book online with ... Stops SJC>DFW 7:15a 2:07p 1 | 4h 52m \$559\* Multiple Carriers **•** 0 \$1228 flight details Dallas Accommodations orbitz.com DFW>SJC 11:30a 4:40p 1 | 7h 10m **F** 1 \$559 Enjoy Golf, Spas, Fine Dining & More - Minutes Away from SJC>DFW 7:15a 2+ 4:10p 1 | 6h 55m \$559\* Multiple Carriers Dallas. flight details orbitz.com DFW>SJC 12:50p 4:40p 1 | 5h 50m ad.doubleclick.net Airlines Compare 2004 SJC>DFW 12:29p 7:18p 1 | 4h 49m \$561\* Multiple Carriers Alaska \$731 Volu flight details orbitz.com DFW>SJC 12:50p 4:40p 1 | 5h 50m America West \$636 Activities in Dallas SJC>DFW 12:29p 7:18p 1 | 4h 49m \$561\* Multiple Carriers American \$675 flight details ORBITZ: Dallas Vacation orbitz.com DFW>SJC 12:50p 4:40p 1 | 5h 50m \$719 Continental Over 500 vacation destinations to choose from. Book a trip to SJC>DFW 6:15a 1:26p 1 | 5h 11m 🔽 Delta \$1183 \$561\* Multiple Carriers Dallas orbitz.com flight details DFW>SJC 12:50p 4:40p 1 | 5h 50m Frontier \$639 nahi di Uli Max Time Range 🔺 Aug 9,2004 - Aug 4,2006 1 Day 5 Days 1 Month 3 Months 6 Months 1 Year 2 Years 5 Years Splits Dividends

#### Think "deeper interaction"

Multi-variate data



### Think "deeper interaction"

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

	Crew Id	Last Name	First Name				
8	349394	Craft	Adrian				
8	432939	Douglas	Elayne				
8	468370	Hill	Petra				
Cou	rse Calen	dar —		DEC 2005			
	S	м	т	w	т	F	S
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		4 {	6	7	8	9	
		600922/Peterson		999300/Barnes	0	5	
				344935/Smith	-		
				139204/Miller			
	1	1 12	2 13	<b>h</b> 14	15	16	
	1	8 19	20	21	22	23	
					20		
	2	5 26	6 27	28	29	30	

### key principle

Info

# Think in objects, tie information to interactivity

### key principles for richness

Interaction

Prefer direct, lightweight, in-page interactions

Feedback

Provide invitations beforehand, transitions during and feedback after interaction

Info

Think in objects and tie information to interactivity

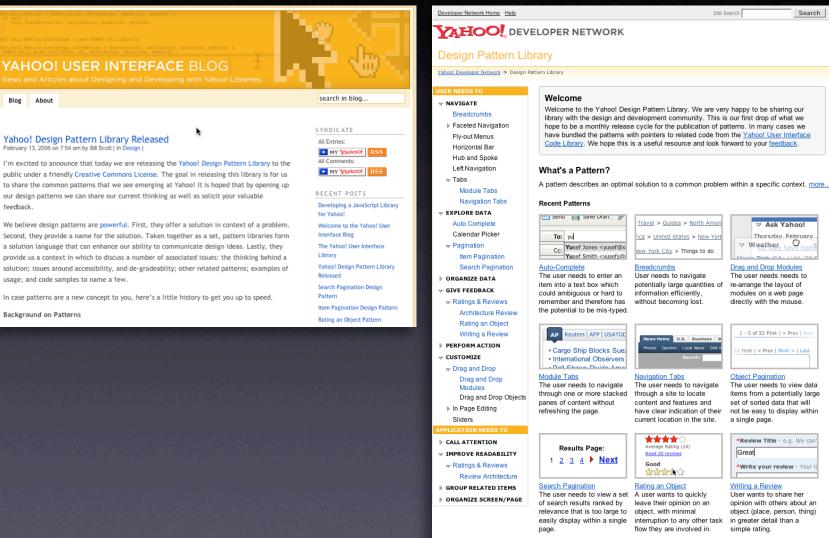
### pattern library. yahoo! blog. my blog. this prez.

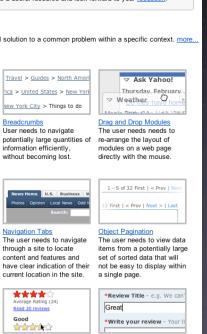
Blog About

feedback

Background on Patterns

### developer.yahoo.com/ypatterns/ yuiblog.com looksgoodworkswell.com ue.corp.yahoo.com/bscott/share/presentations/2007/e7





Search

#### Writing a Review User wants to share her opinion with others about an object (place, person, thing) simple rating.