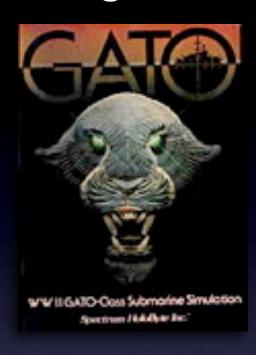
# Anti-Patterns

Designing for the Poor Web Experience

Bill Scott
Director UI Engineering, netflix.com
b.scott@yahoo.com







#### **JavaScript for Rich Internet Applications**

A A HIGHIO

Demos Documentation Downloads

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

#### 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.js effort from the Ruby on Rails

#### **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

#### AJAX SUPPORT

Ajax 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 JavaScript object as a drop zone and Rico

#### CINEMATIC EFFECTS

When actions are no longer occurring just at the page level but within the page itself, more clues are required to clue the user on what has transpired. Cinematic effects such as scaling and smooth sliding transitions can communicate change in richer ways than traditional web applications have explored before. Rico provides several cinematic effects as well as some simple visual style effects in a very simple interface.

#### BEHAVIORS

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



**NEW! LiveGrid Behavior!** 

Check out the Alternative to Paging!

RICO AJAK SEAR

See Rico in Action!



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Developer Network Home Help

#### YAHOO! DEVELOPER NETWORK

#### Design Pattern Library

Yahoo! Developer Network > Design Pattern Library

#### - NAVIGATE

Faceted Navigation

Fly-out Menus Horizontal Bar Hub and Spoke Left Navigation

- Tabs

Module Tabs Navigation Tabs

#### EXPLORE DATA

Auto Complete Calendar Picker

Pagination

Item Pagination Search Pagination

#### ORGANIZE DATA

#### GIVE FEEDBACK Ratings & Reviews

Architecture Review

Rating an Object Writing a Review

#### ▶ PERFORM ACTION

 Drag and Drop Drag and Drop Modules

Drag and Drop Objects

▶ In Page Editing

CALL ATTENTION

IMPROVE READABILITY

Ratings & Reviews

Review Architecture

#### **GROUP RELATED ITEMS**

ORGANIZE SCREEN/PAGE

The user needs to view a set of search results ranked by relevance that is too large to easily display within a single page.

Search Pagination

Results Page:

1 2 3 4 Next

#### 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...

Travel > Guides > North Amer

ica > United States > New Yor

lew York City > Things to do

potentially large quantities of

otos Opinion Local News Odd

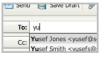
User needs to navigate

information efficiently.

without becoming lost

Breadcrumbs

#### Recent Patterns



#### 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.

#### Reuters | AFP | USATOD ome U.S. Business

#### · Cargo Ship Blocks Sue: International Observers

### Module Tabs

The user needs to navigate through one or more stacked panes of content without refreshing the page

#### Navigation Tabs The user needs to navigate

through a site to locate content and features and have clear indication of their current location in the site.



#### Rating an Object

A user wants to quickly leave their opinion on an object, with minimal interruption to any other task flow they are involved in.



#### Drag and Drop Modules

The user needs needs to re-arrange the layout of modules on a web page directly with the mouse.



#### Object Pagination

The user needs to view data 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.





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#### \*\*\* Read 20 reviews Good 公全会会会

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### YAHOO! GOBBLER"

#### Scratchpad

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Add Website to Scratchpad

#### Projects(3)

**National Mapping -**Fab Facts, Landforms http://www.ga.gov.au/education/fa

#### Geography: Landfor...

🐫 Add Website to Project

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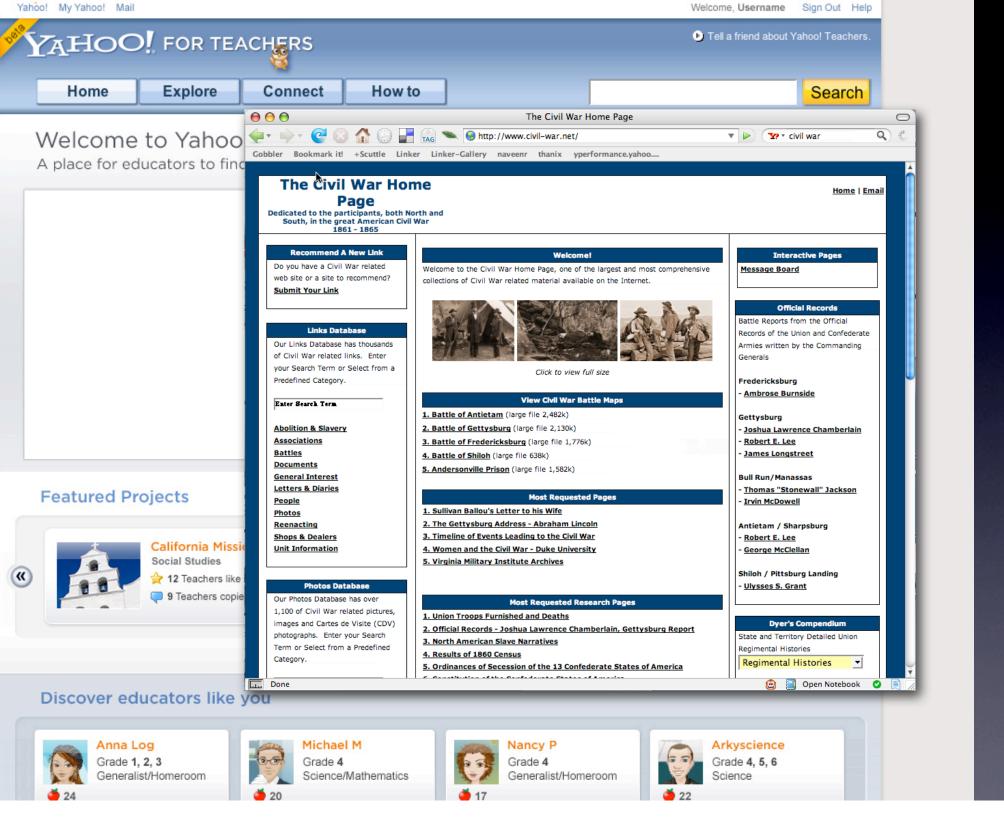
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Add Website to Project



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Netflix Top 100

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Bill, the following movies were chosen based on your interest in: The Truman Show My Big Fat Greek Wedding The Office: Season 3 (4-Disc Series)



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Set in the 1950s. this romantic drama is reminiscent of Frank Capra's classic films. Screenwriter Peter

Appleton (Jim Carrey) is on the verge of ... Read More



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**○ ★★★**☆ In this movie loosely based on Frances Mayes's best-selling memoir of the same title, Diane Lane

stars as Frances, a newly divorced American writer ... Read More



Not Interested

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Planet Earth: The Complete Collection (5-Disc Series)

Not Interested

Blades of Glory





#### Guides:

Member Favorites

Easter Eggs D. Danada

The Office:

## anti-patterns

### what are anti-patterns?

"Anti-patterns, also called pitfalls, are classes of commonly-reinvented bad solutions to problems. They are studied as a category so they can be avoided in the future, and so instances of them may be recognized when investigating non-working systems. The term originates in computer science, apparently inspired by the Gang of Four's book Design Patterns, which displayed examples of high-quality programming methods." - Wikipedia, Anti-Pattern.

### interaction design anti-patterns

Like the software anti-pattern counterparts, the following anti-patterns are common pitfalls to avoid.

### pitfalls with a pithy name

### anti-patterns

big ball of mud. meandering way.

borg idiom. tiny targets. mystery meat.

buried treasure. hover and cover.

pogo stick navigation. novel notions.

against the flow metaphor mismatch.

double duty. linkitus. blind type.

windows aplenty. animation gone wild.

misguided misdirections. unmarked hazards. missed

moments. missing scene.

one at a time. non-symmetrical actions.

Note: anti-patterns denoted in **bold** are discussed in this talk.

### summary

Normal flow through the page takes the user on a meandering journey with the mouse.

### alternate names

zig-zag interaction, scenic route

### example

Actions hidden under hover (in context tools) that require the user to hover an area, then move the mouse to an area that would normally be outside the object's space (back and forth operation)

In our Y!Teachers product the first version of the hover caused a lot of mouse zig-zagging to do common operations.



National Mapping - F... http://www.ga.gov.au...



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National Mapping - F... http://www.ga.gov.au...



Volcano World - The ... http://volcano.und.e...



Hawai'i Volcanoe... http://www.nps.gov/a...



National Mapping - F... http://www.ga.gov.au...



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Copy of Gobble Image... http://beta.teachers...



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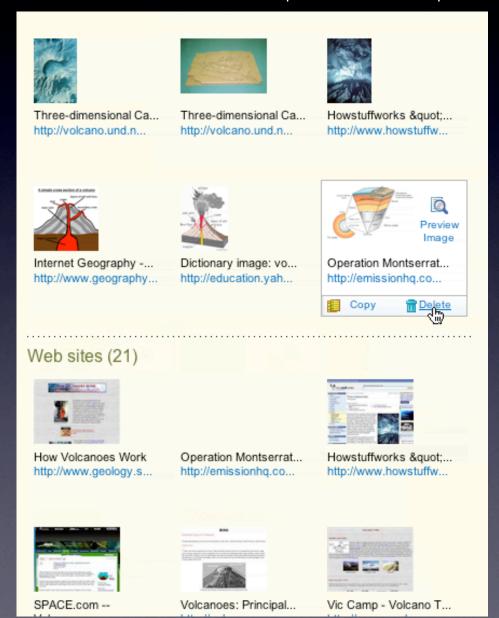


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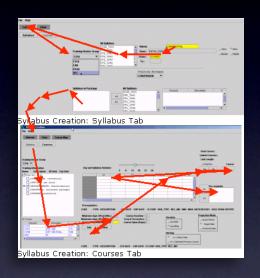


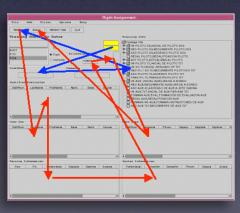
National Mapping - F... http://www.ga.gov.au...

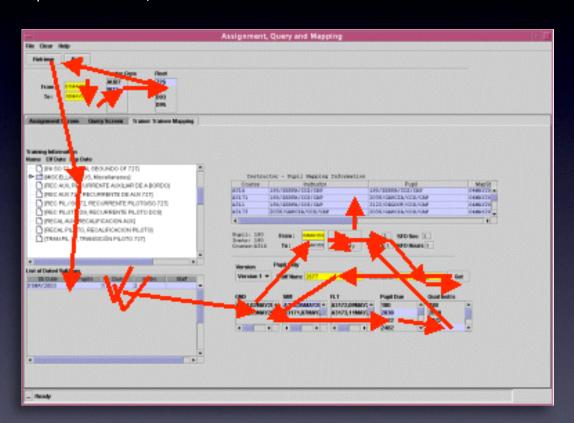
In the redesign, we avoid any popup, any page jitter and make it possible to just move the mouse to a predictable spot to do multiple operations.



In previous company, I found this was a common occurrence in their suite of software application. By drawing red arrows indicating the user flow, it made the problem obvious and helped to refactor to a correct solution..







## refactoring. meandering way

### Annotate the current flow.

Take a snapshot. Draw red arrows through the interface for each user scenarios. Use this information to simplify flows and eliminate zig-zag interaction.

### Draw the ideal flow.

During design refactoring, only display the elements needed for each interaction. This will allow you to focus on what is important for the interaction— and what is actually the supporting information.

**Watch out for hovers**. Make sure that all in-context tools that get revealed require no extra mouse move and are completely predicatable — allowing the user to gain speed in using the interface.

### Follow spatial consistency.

Take advantage of user's learning the command space visually.

# anti-pattern. pogo stick navigation

### summary

Requiring the user to go down a level or two, perform an operation, come back to the top and then have to go back down again. Name comes from hopping up and down through the site.

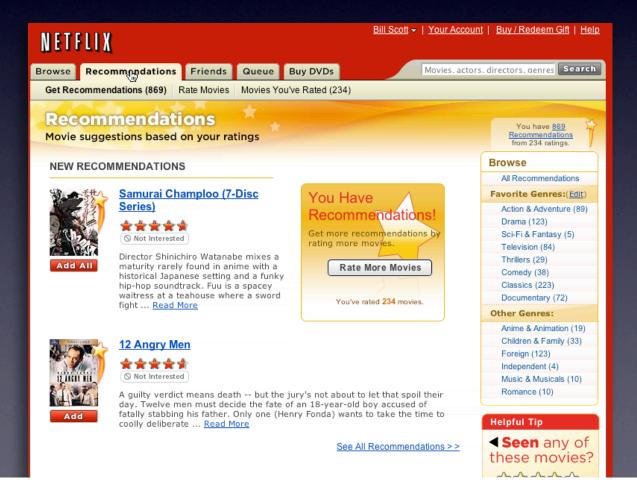
### credit

Jared Spool

# anti-pattern. pogo stick navigation

Netflix faced the problem of users needing more information on a movie. They would go down to the details of the movie, possibly adding to the queue. Then they would go back to where they come from and repeat this

Their solution involved an overlay that can support an alternate navigation stream. Then the user can come back to the main flow anytime they desire.



# anti-pattern. pogo stick navigation



## refactoring. pogo stick

**Draw flow arrows** between pages to catch the zig-zag bouncing from page to page (see Meandering Way anti-pattern).

### To avoid pogo effect:

- Use in-context tools to bring actions into the current page
- Use hover details to reveal information in context
- **Use overlays** for encapsulating an alternate navigation path to allow temporary exploration without losing the original context of navigation
- Use in page actions like inline editing, etc. to provide functionality inline.
- Use in-context expands to reveal information on the page.

### Watch out for overlays

Can make users resort to back button anyway

### summary

Making key interaction points too small increases the likelihood that users will be frustrated with the interface.

### fitts law

The time to acquire a target is a function of the distance to and size of the target.

### examples

divots for expand/collapse

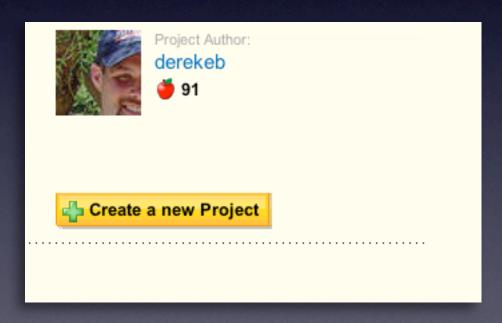
The identity card area has a summary view and an expanded view. The targeting is really small and caused lots of usability issues.

### Several problems exist:

The target for expand/collapse is hidden

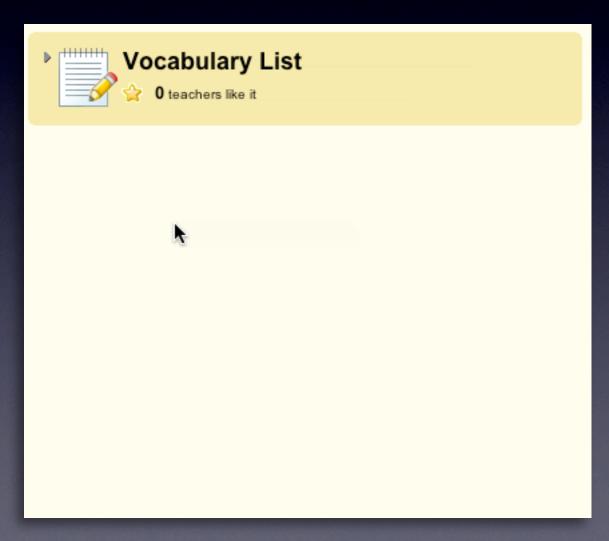
The area that reveals the target area for our identity card is only the photo and not the complete summary view

The target is a very small divot that is hard to hit.



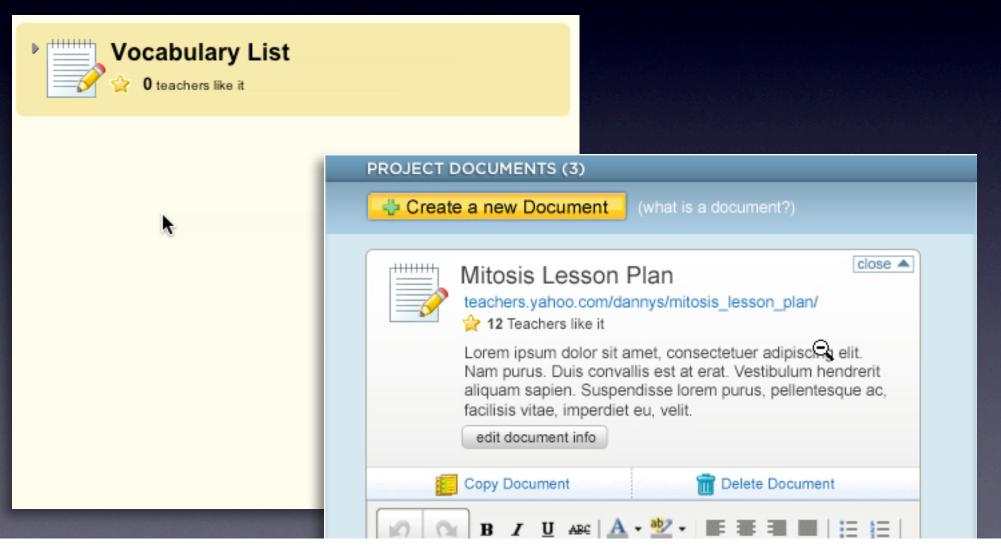
The target for opening the vocabulary list is actually anywhere in the complete title. However, it looks like you can only click the little tiny divot (8x8 pixels)

Redesign will call out "Close" as bigger target, but also cause title to have link.



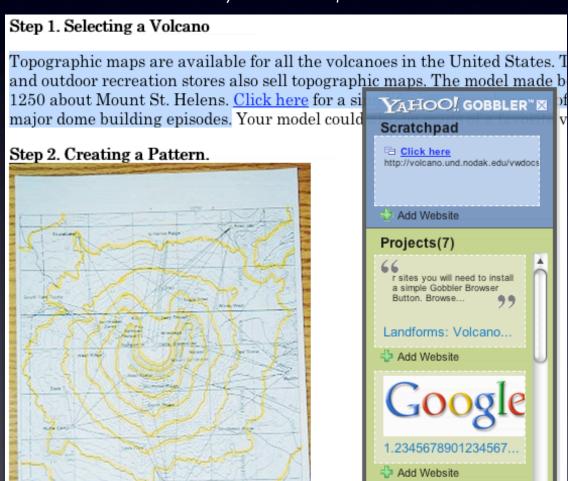
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The Yahoo! Gobbler has done well in tests due to the larger nature of the project drop targets.

One issue that still needs to be addressed is the smaller target of the Text Drag button. Consistently causes problems-- too small.

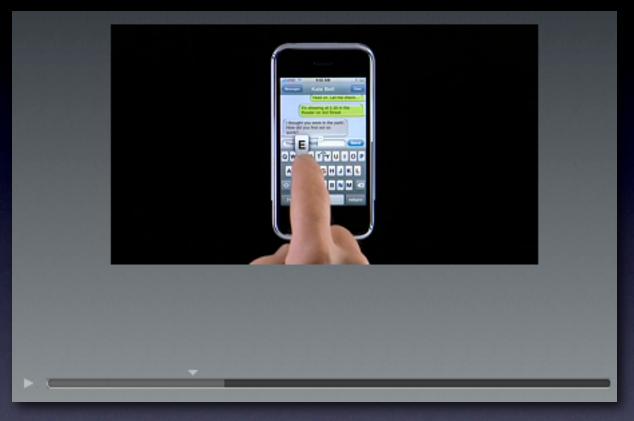


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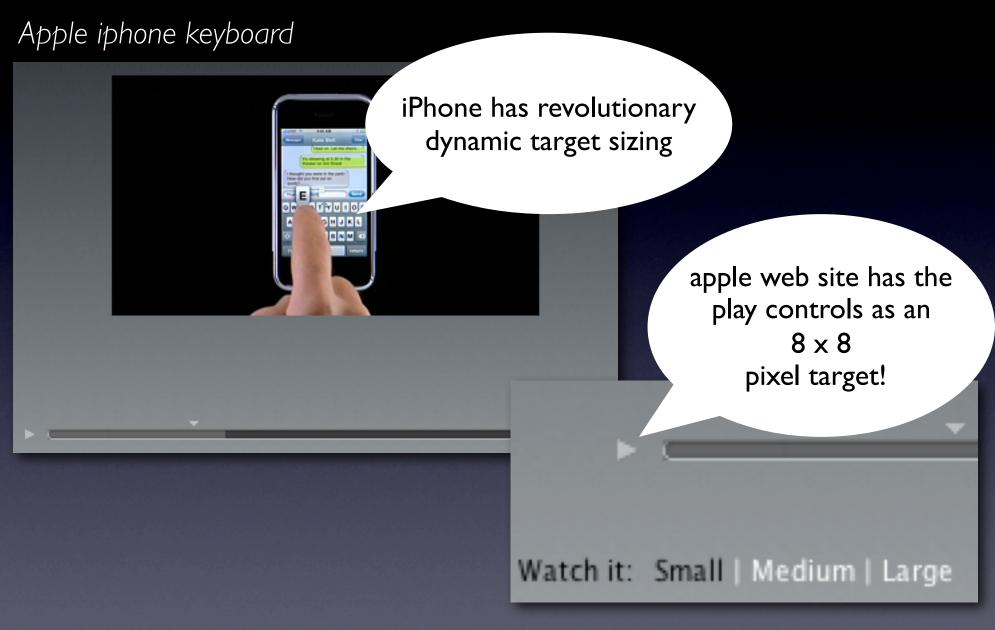
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Apple iphone keyboard







## strategies. tiny targets

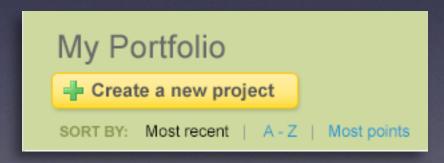
Activation targets and important commands need to be large enough, visually distinct and in proximity to operation.

Use in-context tools to support proximity.

Use "Call to Action" style buttons for most important operations.

If titles will expand/collapse, at least use hyperlink underline when hover happens to provide a bigger target.

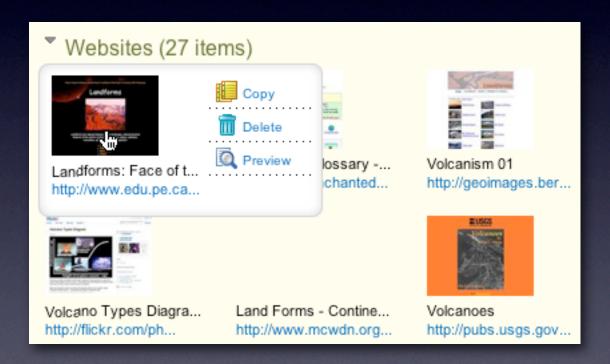
**Never use 8x8** for targeting :-)



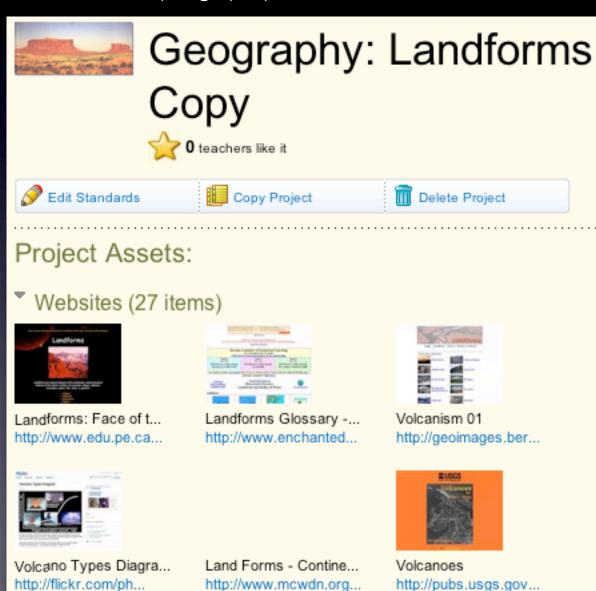
### summary

Hover reveal of information and actions has become more and more popular. Hover & Cover is when the hover actually hides important contextual information around the object or gets in the way of other actions.

Original hover was extremely annoying as it Covered the item to the right (natural flow is move to right) Occluded text edit area (hung open)



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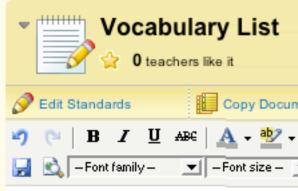






### Documents:





### Landforms Vocabulary

Volcano

Example from plum.com

Drop down menu shows on hover and gets in the way. Too easy to accidentally turn it on.

▼ Click to filter by: alternative, alternative & punk, art, da vinci code, example, flowers, flowers%2c%20plum%2c%20crocus, introduction, music, norway, plum, restaurant, rock, san francisco, summer, sunset, travel, vacation, video stamp, youtube

more...

1 through 20 of 33,883 results ●

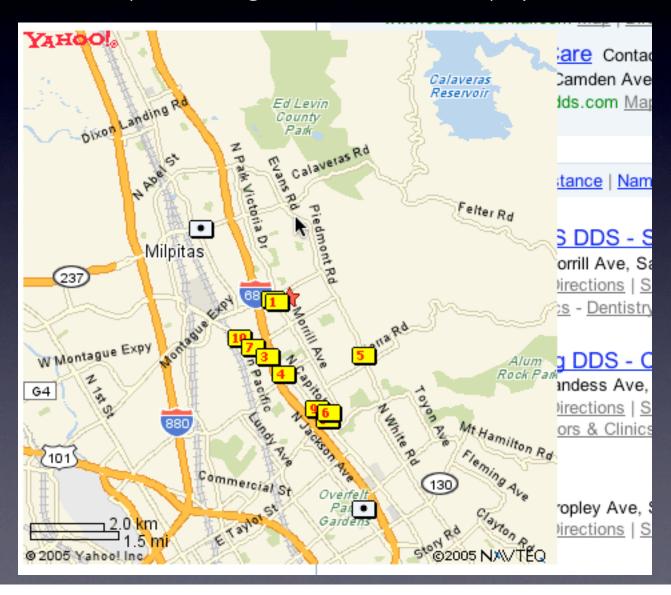
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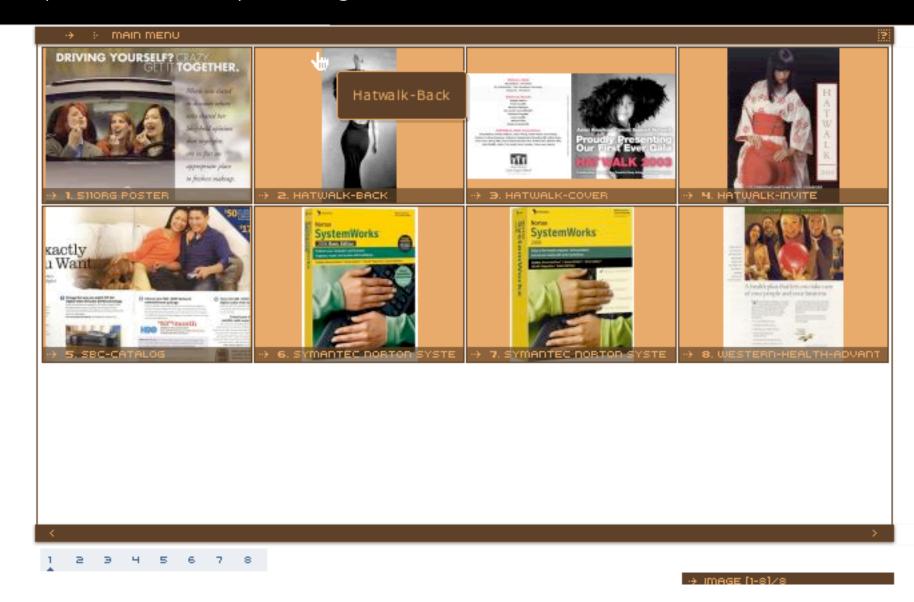
Yahoo! Local orginally had this hover beast.

Thankfully it no longer functions this way :-)



This one almosts leads to a new anti-pattern-- hover madness

Seriously what were they thinking?



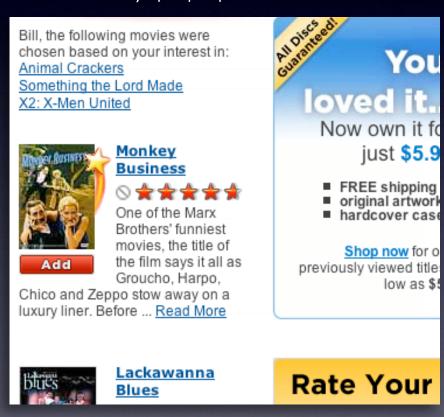
## refactoring. hover & cover

For in-context tools, attempt to **reserve same space** for both hovered and non-hovered state

For hover details (information) place the hover in a manner that **does not cover** up important controls, will not cause accidentaly popup & down and is easy to deactivate.

For hover details, allow a 1/4 second delay before activating.

For in-context tools, **show** hover state **immediately** and provide **consistent targeting** for operations from object to object (allow user to get action item just in time)



## anti-pattern. borg idiom

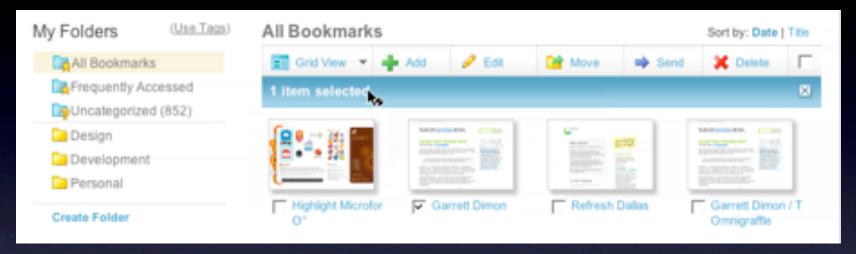
### summary

Not all idioms play well together. Some idioms are more powerful than others. For example, tree controls, drag and drop, selection mechanisms all set up an "interaction theme".

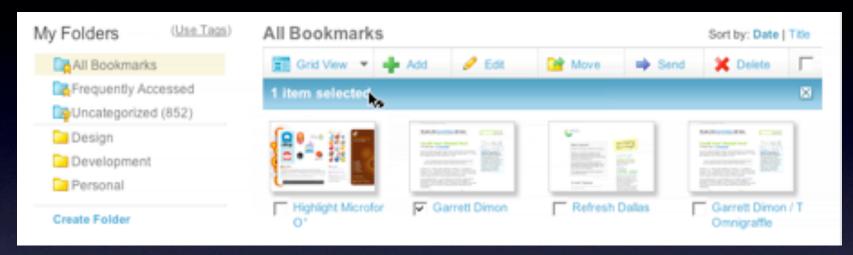
Just like visual styles need to be consistent, interaction styles also need to be consistent throughout the entirety of the interface

**Borg Idiom** is the phenomonon of an idiom (once adopted) assimulating the rest of the interface. Sometimes the assimulation is just the fact that one idiom dominates due to the way the interface clues the user to their presence.

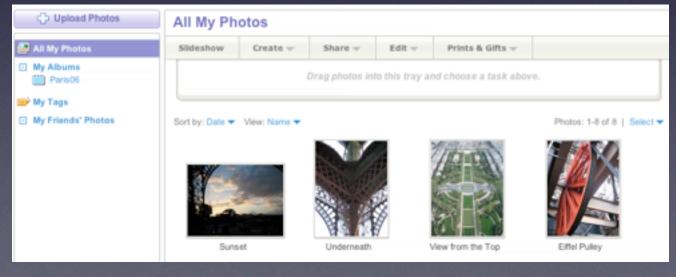
Here was an early attempt on Yahoo! Bookmarks to blend drag and drop with item selection (checkbox idiom). It has odd side effects during the interaction.



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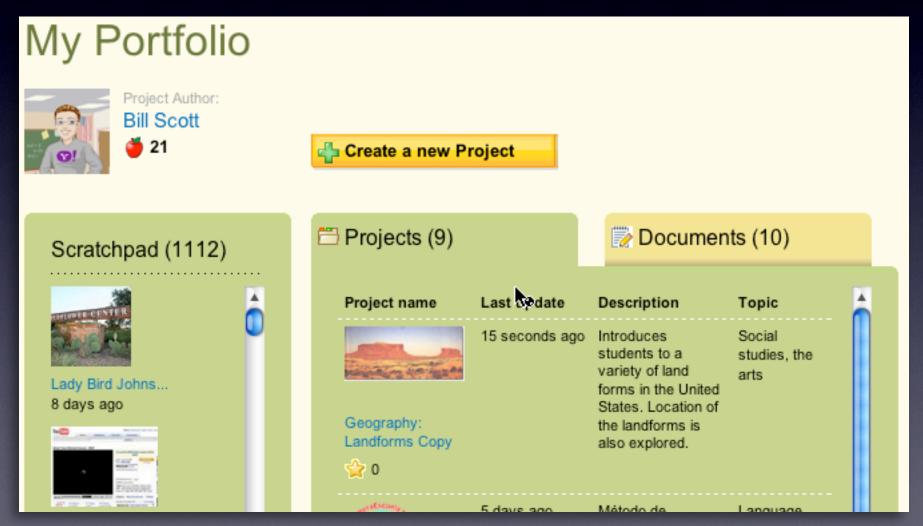


In Yahoo! Photos (no longer available) drag selection was implemented well. One issue was the page metaphor + drag selection + a tray idiom.



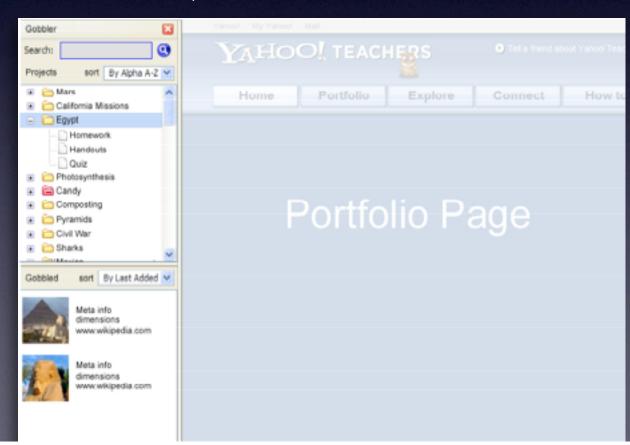
Original design did not accurately reflect the hierarchical nature of projects containing documents.

The tab idiom incorrectly communicated that these objects were in parallel.



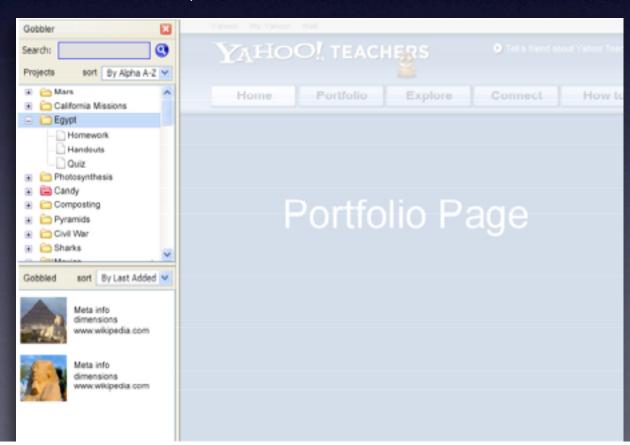
An initial redesign proposed using a tree control. It would communicate projects contain documents. It would also become a navigation that would naturally repeat itself to the "gobbler" as well

Tree controls are a "strong" idiom. They are not very friendly on the web. They require some dexterity to navigate. They play better on a desktop where "controls" are favored over "active content".



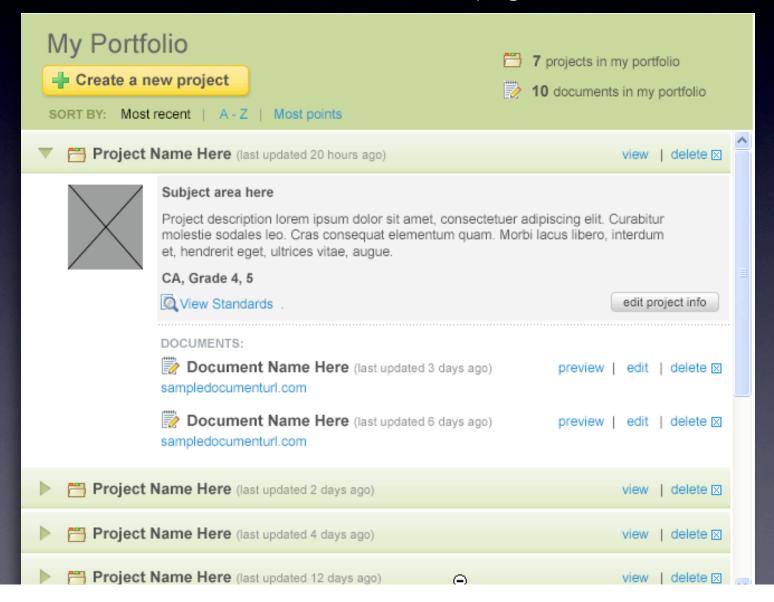
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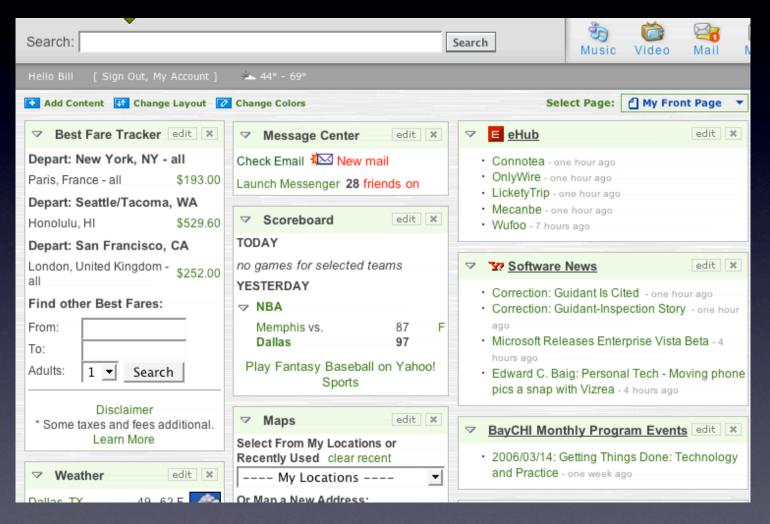




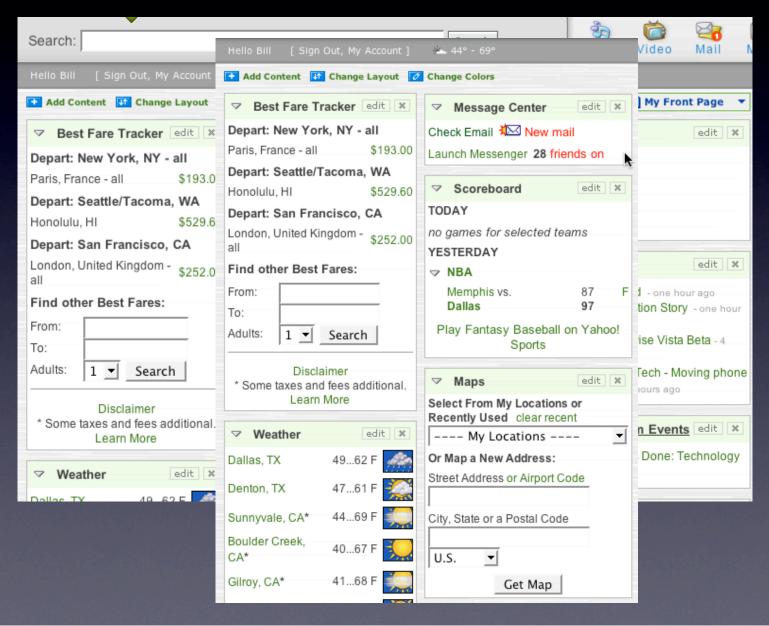
The final approach was to take a more content-driven approach rather than a "control-oriented" approach. This fit nicely with the rest of the interface, leaving all of the site to look like normal web pages.



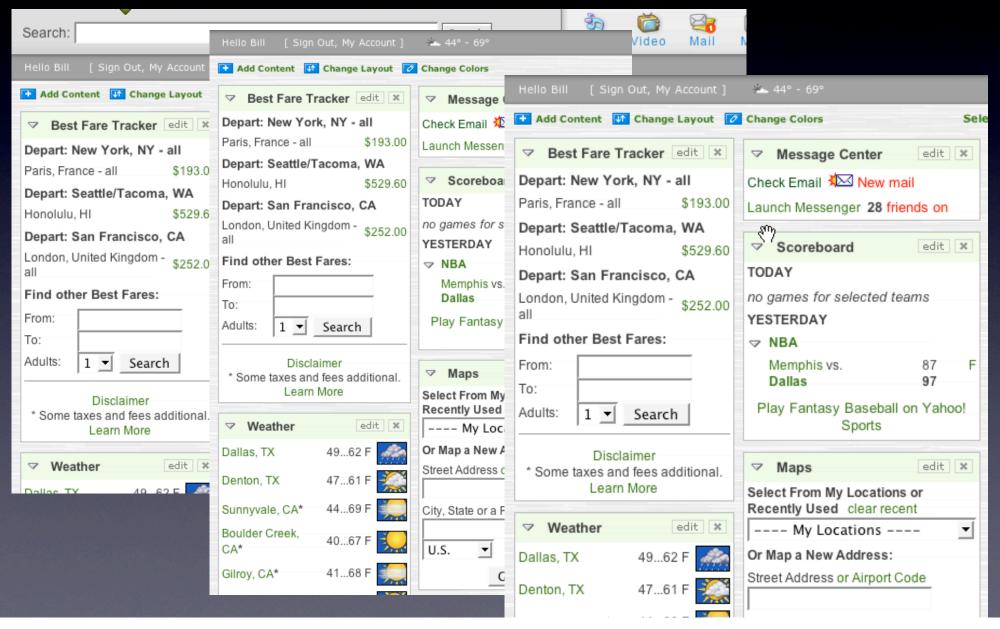
Three idioms living in parallel with each other. The old style overwhelms the other two.



Three idioms living in parallel with each other. The old style overwhelms the other two.



Three idioms living in parallel with each other. The old style overwhelms the other two.



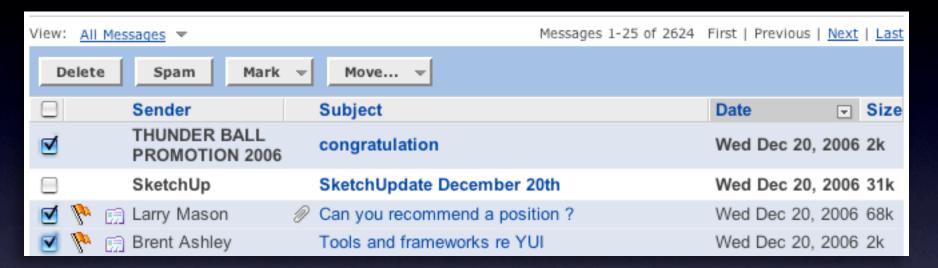
Netflix recently added drag/drop to their movie queue.

Notice they were able to mix two idioms without one taking over from the other.

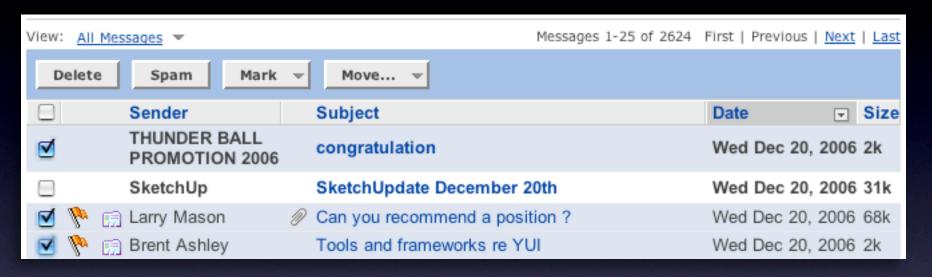
Next step? drag drop delete?

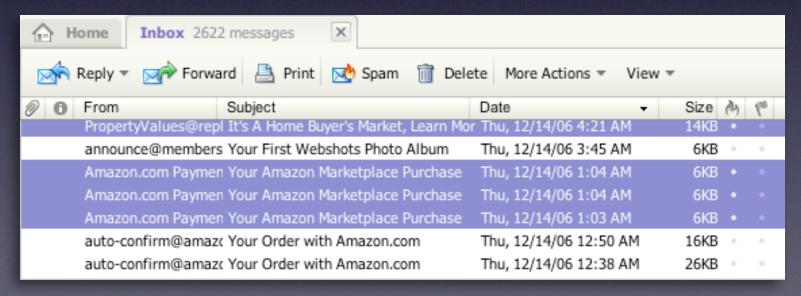
| DVDs in Your Queue |                                 |             |              |      |            |              | Update Your Queue |                   |  |  |
|--------------------|---------------------------------|-------------|--------------|------|------------|--------------|-------------------|-------------------|--|--|
| Priority           | Movie Title                     |             | Star Rating  | MPAA | Genre      | Availability | Remove            | Move<br>to<br>Top |  |  |
| 1                  | SCTV Network 90: Vol. 2: Disc 1 |             | ****         | NR   | Television | Now          |                   | <b>X</b>          |  |  |
| 2                  | SCTV Network 90: Vol. 2: Disc 3 |             | Series Disc  | NR   | Television | Now          |                   | <b>T</b>          |  |  |
| 3                  | SCTV Network 90: Vol. 2: Disc 4 | <u>የ</u> ግን | Series Disc  | NR.  | Television | Now          | Г                 | <b>T</b>          |  |  |
| 4                  | The Truman Show                 |             | <b>***</b> * | PG   | Comedy     | Now          |                   | <b>T</b>          |  |  |
| 5                  | SCTV Network 90: Vol. 2: Disc 5 |             | Series Disc  | NR   | Television | Now          |                   | <b>T</b>          |  |  |
| 6                  | Take the Money and Run          |             | <b>★★★</b> ☆ | R    | Comedy     | Now          |                   | <b>T</b>          |  |  |
| 7                  | The Gathering Storm             |             | <b>***</b>   | NR   | Drama      | Now          |                   | <b>T</b>          |  |  |

Two approaches. Object selection (highlight idiom). Item selection (checkbox idiom). Is it possible to marry the two?

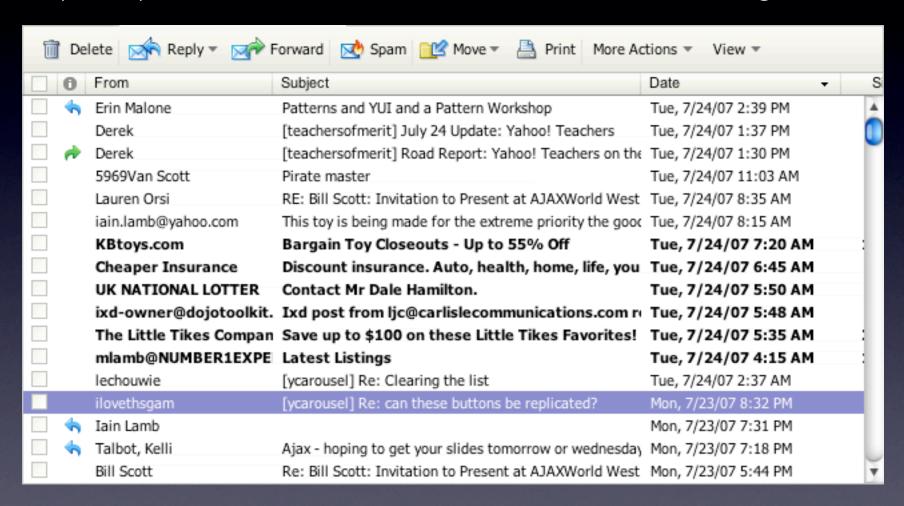


Two approaches. Object selection (highlight idiom). Item selection (checkbox idiom). Is it possible to marry the two?





Current Yahoo! Mail successfully married the two interaction idioms. It did it in a way that you can use either idiom as both have their advantages.



# refactoring. borg idiom

For content-oriented rich sites, avoid becoming control-heavy. Stay away from the tree control and other strong desktop style controls. Make your content interactive, thus making the content the control.

Before adding any interaction style, **make sure it will scale** across all know parts of your interface.

Either allow yourself to be assimilated (be consistently borg :-) or eliminate the Borg from your site.

**Watch out when mixing drag and drop** with checkbox style selection.

Avoid mixing selection styles.

#### summary

Creating a new interface for a common idiom that is more confusing than the original. Sometimes it is just mis-using a component for a new purpose.

#### examples

Using drag and drop for simple attribute setting; using odd navigation schemes for some supposed effect

This is just bizarre. Especially the "Search Jobs" link. And it plays music ;-)

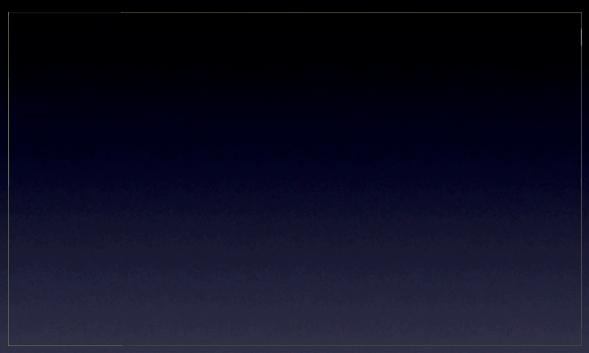


This is just bizarre. Especially the "Search Jobs" link. And it plays music ;-)

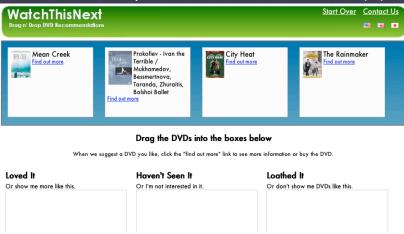


This guy won an award! Look it's just marking stuff as 'favorite'.

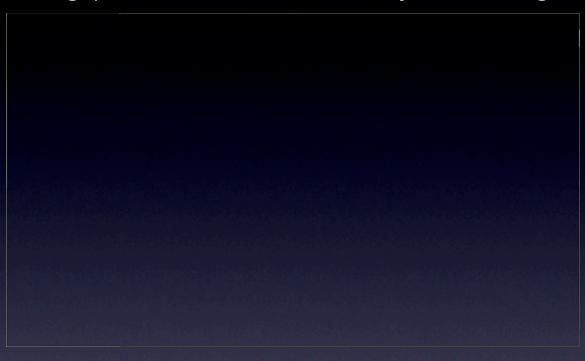
This guy won an award! Look it's just marking stuff as 'favorite'.



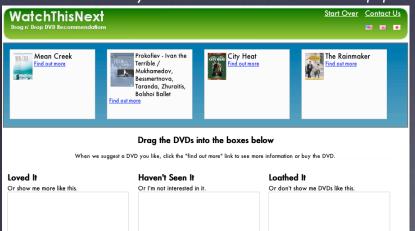
And this is yet another novel approach to favorites



This guy won an award! Look it's just marking stuff as 'favorite'.



And this is yet another novel approach to favorites



#### Already solved.

#### **Classics**



gunslinger's ... Read More

The Great Escape

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 >

Featured Subg



Add

Jane, two up-ar yuppies who ex lifestyle before name for it. But his lucrative job Read More



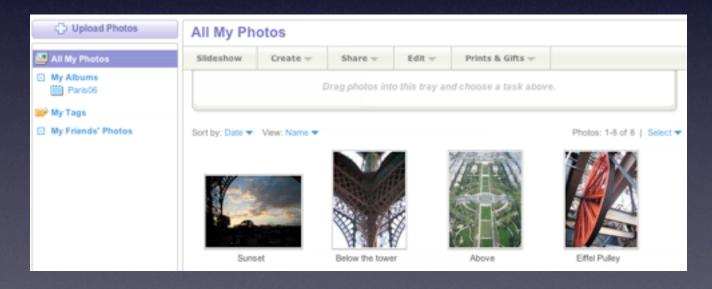
Add

again -- this tim the life and time Perhaps the mo

Yahoo! Photos (going away) tried a novel approach to selection. It involved the new concept of a "tray" for holding temporarily selected items.

Technically perfect. But design-wise misguided. Created two targets for commands: selected items and items in the tray.

As a result the menu commands were duplicated for the tray and for the current selection. Confusing.



# refactoring. novel notion

#### Understand the purpose of each type of component

- Carousels do not replace scrolled lists
- Drag and drop is not for single attribute setting

**Don't construct an artificial interface** to support an idiom (don't create the house for the nail)

If you think you need something never created before, think twice about it

# anti-pattern. linkitus

#### summary

The syndrome of having no idea where a link will lead you. could be an in page action, could reveal information, could take you to new page, could popup something, could engage on hover. Can also be aggravated by inconsistent use of links on the same page.

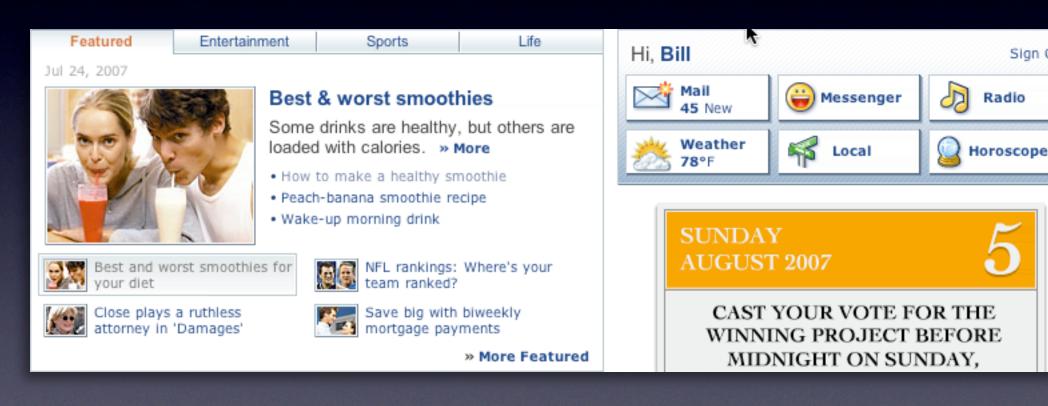
#### examples

yahoo.com inconsistent use of links on main page, teachers.yahoo.com around id card

## anti-pattern. linkitus

On the home page, there are three kinds of links:

- Reveal other content in context
- Take you to the article
- Expose area (hover to reveal, click to go to tool)



## anti-pattern. linkitus

Bizarre use of links. Hover reveals information. Click does nothing.

Very close to being a candidate for Novel Notions.

KFOX Kihncert On The Green July 1, 2007

Rest, Relax, & Get Ready For Fireworks! July 2, 2007

Day On The Meadow July 3, 2007 NBC11 Festival For Independence July 4, 2007

ON STAGE . DIRECTIONS . EHC LIFEBUILDERS . SPONSORS . VOLUNTEER . EVENT MAP FAQ



The Bay Area's

#### GENERAL INFORMATION

About The Event Beneficiary Hours Tickets

#### **GETTING THERE**

<u>Directions</u> <u>Public Transportation</u> <u>Parking</u>

#### AT THE FESTIVAL

ATM Locations
Audio/Video
Bathrooms
Beverages/Food
Children At The Festival
Fireworks
First Aid
Information
Lost & Found
Merchandise
On Stage
Performing or Selling

#### WELCOME TO THE FREQUENTLY ASKED QUESTIONS (FAQ) PAGE

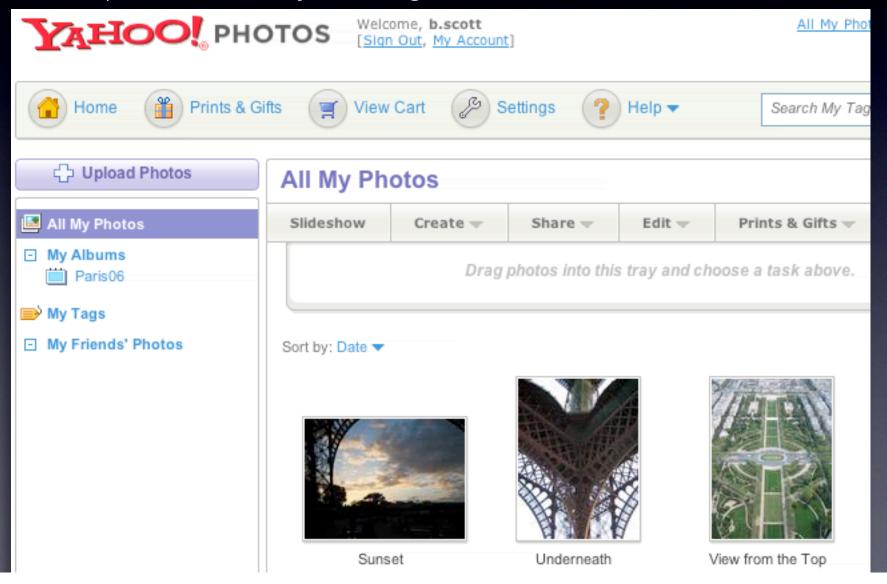
To begin using the FAQ page, simply move your mouse over the blue title of any topic to the left for additional information. If you still have questions that we haven't answered here, just give us a call at the event hotline 408.294.2100 x444 or <a href="Email Us!">Email Us!</a>



# anti-pattern. windows aplenty

#### summary

The practice of throwing up unnecessary idiot boxes. So many reasons this is just wrong...



#### summary

Animation effects that become the central focus instead of being part of reinforcing a message.

#### examples

amazon carousel, tab animation, (stuff from transition talk)

Why the extra little slide in?



#### Step Eleven

Water thoroughly so the soil is moist to a depth of 6 to 8 inches.



#### Step Twelve

Keep the seed bed moist (but not soggy) until sod roots knit with soil below. In hot weather, you may have to water more than once a day.

#### Tips & Warnings



- Lay the sod on dry soil to avoid a muddy mess.
- - When laying sod, kneel on a piece of plywood so you don't disturb soil or damage sod, and use kneepads to keep your knees from getting sore.
- Laying sod is hard work. Enlist the help of friends, and use a wheelbarrow to cart pieces around.
- Keep pets and kids off your new lawn by enclosing it with stakes and string.
- Avoid letting sod dry out, whether it's stacked in a pile or already laid. Occasionally sprinkle with water from a handheld hose to keep it moist,

Wow! What more can I say?

Seems to be either a pixel at a time or going so fast you can't use it



More from the gratuitous animation department...



AFI's 100 Years...100 Movies — 10th Anniversary Edition

A new decade, a new countdown.

AFI reveals the 100 greatest movies of all time



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Not sure how much animation does for a tab control? Candidate for Novel Notions



#### Terminal: built right in.

OK, it's not very sexy. In fact, it's quite the opposite. But Coda is all about the little things that make your web development a squidgeon easier. If you need to SSH into a server and run some MySQL queries, or restart Apache, or debug some PHP in real time, there's only one way you're gonna do it: terminal. Coda's got a terminal one mouse click away.



#### egrep 'bellslwhistle' /usr/share/dict/web2

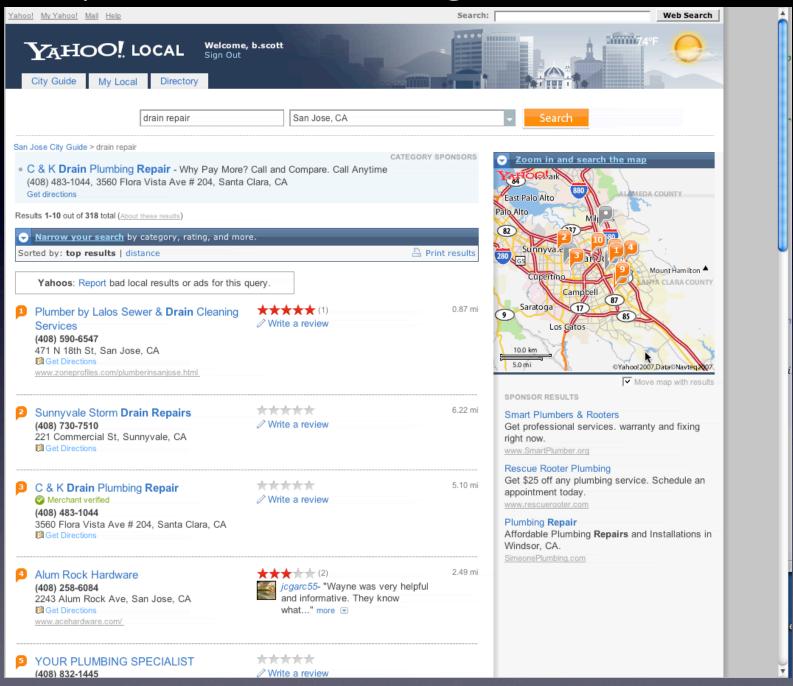
Features? Our terminal has 'em. Connect to a local shell or connect via SSH to a remote server. Put a Terminal in a split, or put a Terminal in its own tab. Copy and paste from the output, or scroll back into the buffer. It's a terminal! And it's convenient!

#### export CLICOLOR=1

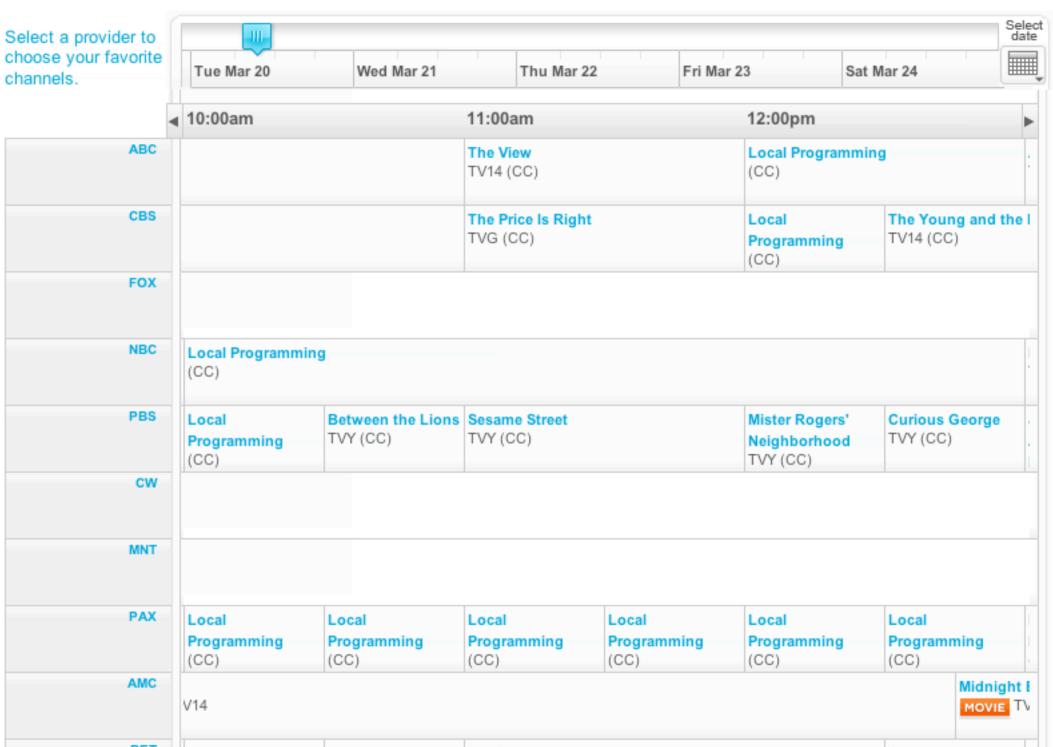
Wait! There's kind of more! ANSI colors also work! You can also, via the preferences, change the font and background colors, or the terminal font itself. Unfortunately, you can't yet set the background to a picture of Arwyn. But e-mail us, we'll always consider it.



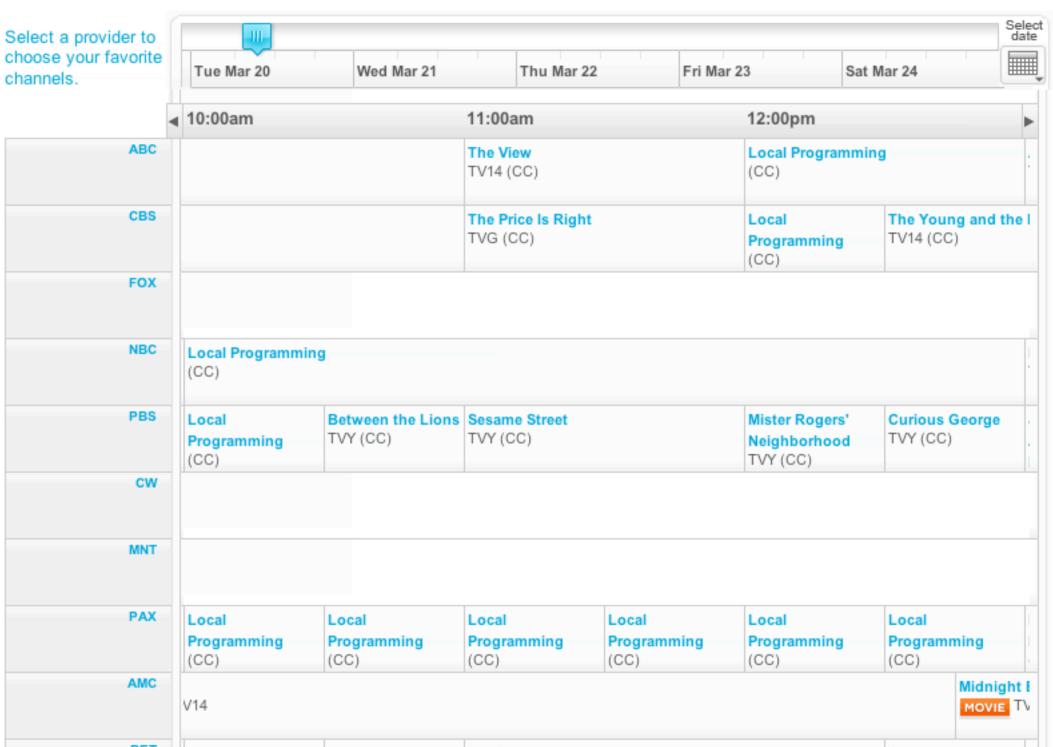














| Display My Favorite<br>Channels Only<br>Select Favorites | Tuesday, July 24                       | ▼ 7 pm ▼ G                             | 80  | J                                      | ump to: N   | ow   Prime                             | time To                               | onight                      |  |
|--|--|--|---|--|---|--|---------------------------------------|-----------------------------|--|
|  | ∢ 7:00pm                               |  | 8:00pm                                      | 9:00pm                                 |   |  |                                       |                             |  |
| 245<br>TNT   | The Closer<br>TV14 (CC) HDTV           |  | Without a Trace<br>TV14 (CC) HDTV           | Without a Trace<br>TV14 (CC) HDTV      |   |  |                                       |                             |  |
| 247<br>TBS   | MLB Baseball<br>(CC)                   |  |   |  |   |  |                                       |                             |  |
| 248 TVMA (CC)  |  |  | Damages<br>TVMA (CC)                        |  | That '70s<br>TV14 (CC)                                |  | how                                   | That '70s ><br>Show<br>TV14 |  |
| 249<br>COMEDY  | Mind of Mencia<br>TV14 (CC)            | American Body<br>Shop<br>TV14 (CC)     | Daily Show With<br>Jon Stewart<br>TV14 (CC) | Colbert Report<br>TV14 (CC)            | Majesti   | Rodney Carrington Live at the Majestic |                                       |                             |  |
| 254<br>AMC   | Patriot Games<br>TV14 (CC)             |  |   | Buffalo Soldie<br>TV14 (CC)            |   |  |                                       |                             |  |
| 256<br>TCM   | Flying Tigers<br>(CC)                  |  |   | Air For                                | Air Force (CC)  |  |                                       |                             |  |
| 265<br>A&E   | Criss Angel:<br>Mindfreak<br>TVPG (CC) | Criss Angel:<br>Mindfreak<br>TVPG (CC) | Criss Angel:<br>Mindfreak<br>TVPG (CC)      | Criss Angel:<br>Mindfreak<br>TVPG (CC) | Dog the Bounty<br>Hunter<br>TVPG (CC)                 |  | Dog the Bounty<br>Hunter<br>TVPG (CC) |                             |  |
| <b>266</b> BIO   | Breaking Vegas<br>TVPG (CC)            | <u>'</u>                               | Mobsters<br>TVPG (CC)                       |  | Notorious<br>TVPG (CC)<br>Mega Disasters<br>TVPG (CC) |  |                                       |                             |  |
| <b>269</b><br>ні <b>з</b> т                              | Ice Road Truckers<br>TVPG (CC)         | s                                      | Modern Marvels<br>TVPG (CC)                 |  |   |  |                                       |                             |  |
| 273  | Kathy Griffin: My                      | Life on the D-List                     | Flipping Out                                | Kathy Griffin: N                       | My Life on  | y Life on the D-List Kathy Griffin     |                                       |                             |  |



| Display My Favorite<br>Channels Only<br>Select Favorites | Tuesday, July 24                       | ▼ 7 pm ▼ G                             | 80  | J                                      | ump to: N   | ow   Prime                             | time To                               | onight                      |  |
|--|--|--|---|--|---|--|---------------------------------------|-----------------------------|--|
|  | ∢ 7:00pm                               |  | 8:00pm                                      | 9:00pm                                 |   |  |                                       |                             |  |
| 245<br>TNT   | The Closer<br>TV14 (CC) HDTV           |  | Without a Trace<br>TV14 (CC) HDTV           | Without a Trace<br>TV14 (CC) HDTV      |   |  |                                       |                             |  |
| 247<br>TBS   | MLB Baseball<br>(CC)                   |  |   |  |   |  |                                       |                             |  |
| 248 TVMA (CC)  |  |  | Damages<br>TVMA (CC)                        |  | That '70s<br>TV14 (CC)                                |  | how                                   | That '70s ><br>Show<br>TV14 |  |
| 249<br>COMEDY  | Mind of Mencia<br>TV14 (CC)            | American Body<br>Shop<br>TV14 (CC)     | Daily Show With<br>Jon Stewart<br>TV14 (CC) | Colbert Report<br>TV14 (CC)            | Majesti   | Rodney Carrington Live at the Majestic |                                       |                             |  |
| 254<br>AMC   | Patriot Games<br>TV14 (CC)             |  |   | Buffalo Soldie<br>TV14 (CC)            |   |  |                                       |                             |  |
| 256<br>TCM   | Flying Tigers<br>(CC)                  |  |   | Air For                                | Air Force<br>(CC)                                     |  |                                       |                             |  |
| 265<br>A&E   | Criss Angel:<br>Mindfreak<br>TVPG (CC) | Criss Angel:<br>Mindfreak<br>TVPG (CC) | Criss Angel:<br>Mindfreak<br>TVPG (CC)      | Criss Angel:<br>Mindfreak<br>TVPG (CC) | Dog the Bounty<br>Hunter<br>TVPG (CC)                 |  | Dog the Bounty<br>Hunter<br>TVPG (CC) |                             |  |
| <b>266</b> BIO   | Breaking Vegas<br>TVPG (CC)            | <u>'</u>                               | Mobsters<br>TVPG (CC)                       |  | Notorious<br>TVPG (CC)<br>Mega Disasters<br>TVPG (CC) |  |                                       |                             |  |
| <b>269</b><br>ні <b>з</b> т                              | Ice Road Truckers<br>TVPG (CC)         | s                                      | Modern Marvels<br>TVPG (CC)                 |  |   |  |                                       |                             |  |
| 273  | Kathy Griffin: My                      | Life on the D-List                     | Flipping Out                                | Kathy Griffin: N                       | My Life on  | y Life on the D-List Kathy Griffin:    |                                       |                             |  |

## refactoring. animation gone wild

Transitions should mean something. They communicate.

#### Understand the hierarchy of transition communication

Rapid movement Rapid color change Slow movement Slow color change

If you are refactoring a wild interface, simply **turn off all animations** and start by communicating fully without it, then **add it back in one at a time**.

### summary

Not providing feedback throughout an interaction. These missed moments can confuse the user about what to do.

### examples

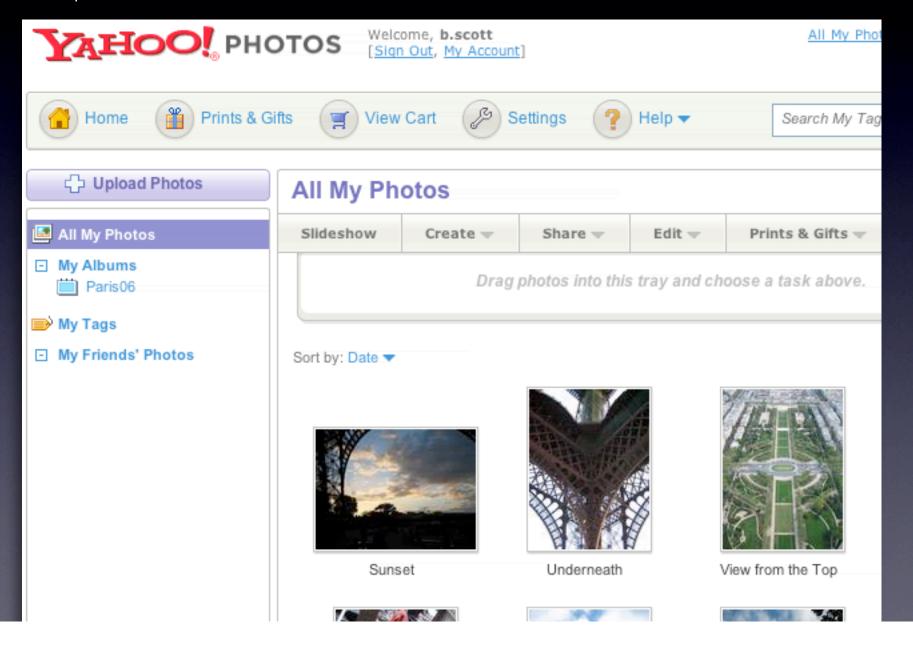
Drag and drop is classic example.

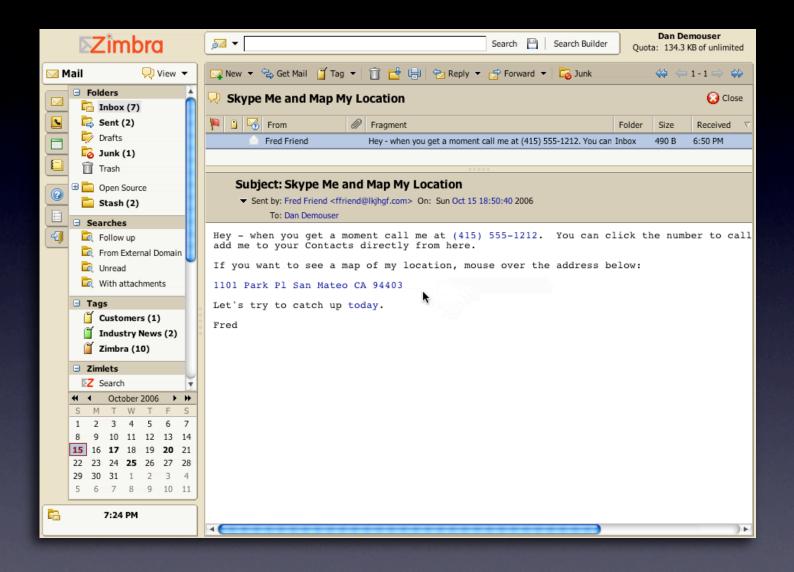
### solutions

Use interesting moments grid to think through each moment

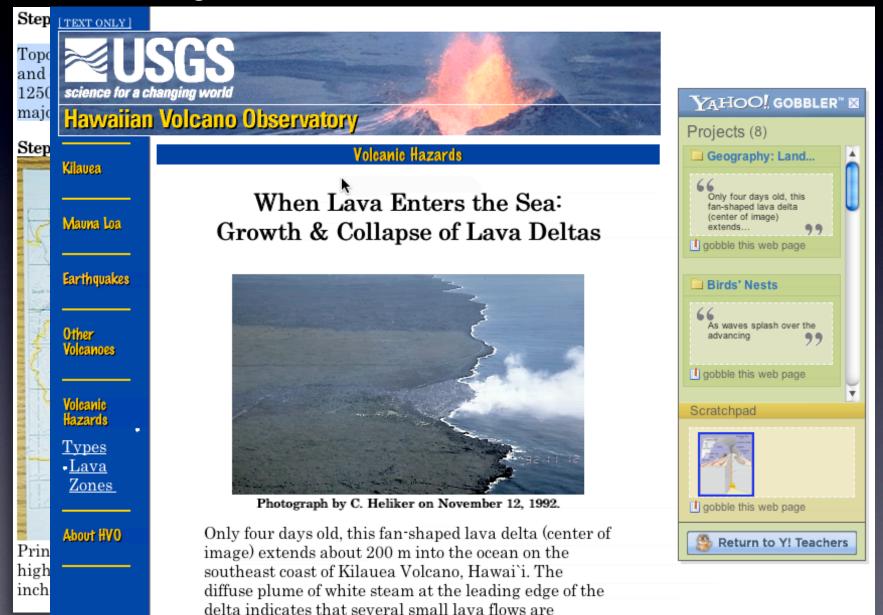
|                  | Page<br>Generation | Mouse<br>Hover | Drag<br>Initiated                | Drag over<br>Valid               | Drag over<br>Invalid                                   | Drag over<br>Original            | Drop<br>Accepted  | Drop<br>Rejected                                   | Drop on<br>Original                                |
|------------------|--------------------|----------------|----------------------------------|----------------------------------|--|----------------------------------|---|--|--|
| Page<br>Content  | Hint               | N/A            | N/A                              | N/A                              | N/A  | N/A                              | N/A   | N/A  | N/A  |
| Cursor           | Normal             | Move<br>Cursor | Move<br>Cursor                   | Move<br>Cursor                   | Move<br>Cursor   | Move<br>Cursor                   | Normal  | Normal   | Normal   |
| Drag Object      | Normal             | Normal         | Reduced<br>Opacity &<br>Tracking | Reduced<br>Opacity &<br>Tracking | Reduced<br>Opacity &<br>Tracking +<br>Invalid<br>Badge | Reduced<br>Opacity &<br>Tracking | 2. Modules animates into the area just below insertion bar 3. Module comes to rest in new area 4. Modules slide up in a self-healing transition to close hole | Normal<br>Opacity +<br>Zoom<br>Back to<br>Original | Normal<br>Opacity +<br>Zoom<br>Back to<br>Original |
| Orig<br>Location | Normal             | Normal         | Hole<br>Opens                    | Hole<br>Remains                  | Hole<br>Remains  | Hole<br>Remains                  | Hole Remains  | Hole<br>refilled<br>with drag<br>object            | Hole<br>refilled<br>with drag<br>object            |
| Drop Target      | Normal             | Normal         | Normal                           | Insertion<br>Bar                 | N/A  | N/A                              | 1. Insertion Bar<br>Removed   | N/A  | N/A  |
| Drop Target      | Normal             | Normal         | Normal                           | Insertion<br>Bar                 | N/A  | N/A                              | 1. Insertion Bar<br>Removed   | with drag<br>object<br>N/A                         | with drag<br>object<br>N/A                         |

Using Y! Photos as example again. Notice missing feedback at key point piles on the problems.





Turns out that a number of events exist during drag and drop that we can use to our advantage.



## refactoring. missed moments

#### Map out all the interesting moments.

Use the interaction matrix or other technique to map events to actors on the page.

#### Use the moments to communicate.

Its the nuance that matters.

#### Think... "interactive directions"

Moment-by-moment directions are the key. Users get lost easily

### anti-pattern. one at a time

### summary

When you can only update small pieces of the interface instead of doing things in a group.

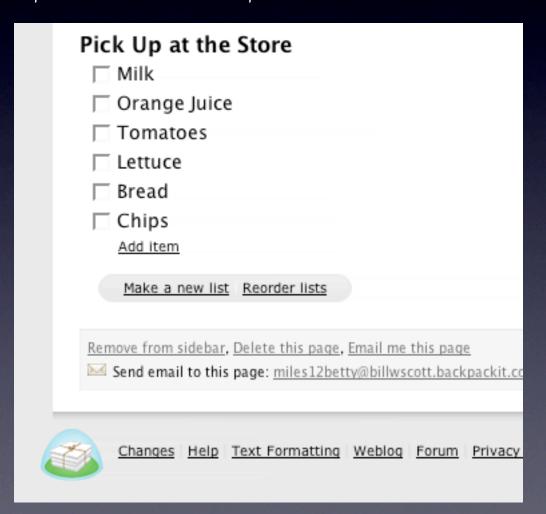
### examples

backpackit

### anti-pattern. one at a time

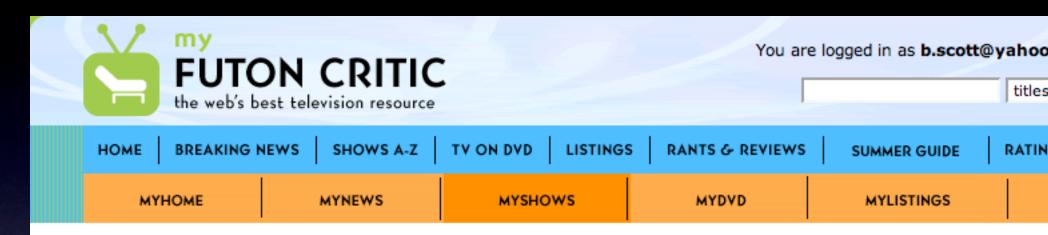
Key is what is the workflow? One at a time or mutiple operations allowed.

These kind of interfaces (in context tools) always present a problem for doing operations on multiple items.



### anti-pattern. one at a time

Takes one at a time check box to the extreme



| SHOWATCH  |              |                   |         |                                      |  |
|---|--------------|-------------------|---------|--------------------------------------|--|
| series  | alert<br>me? | date<br>start/end | network | time slot                            | status                                     |
| AMAZING RACE, THE                                 | Г            | 9/5/01 -<br>???   | CBS     | completed airing its current season  | returning next seaso<br>(2007-2008 season) |
| AMERICAN INVENTOR                                 |              | 3/16/06 -<br>???  | ABC     | wednesdays<br>(9:00 PM-10:00 PM EST) | returning this summ<br>(yet to premiere)   |
| AMERICA'S FUNNIEST<br>HOME VIDEOS                 | <b>V</b>     | 1/14/90 -<br>???  | ABC     | completed airing its current season  | returning next seaso<br>(2007-2008 season) |
| AMERICA'S GOT TALENT                              | <u>~</u>     | 6/21/06 -<br>???  | NBC     | tuesdays<br>(8:00 PM-9:00 PM EST)    | returning this summ<br>(yet to premiere)   |
| AMERICA'S MOST<br>WANTED: AMERICA<br>STRIKES BACK | <u>~</u>     | 2/7/88 -<br>???   | FOX     | saturdays<br>(9:00 PM-10:00 PM EST)  | currently airing<br>(2006-2007 season)     |

### refactoring. one-at-a-time

Think about what happens when the data/information scales It affects space issues but also affects interaction density.

### Think about doing multiple operations at once

Balance with immediacy

#### Watch out for in-context tools, in-page actions

These give immediacy but also will trap you into not handling multiple items at once.

#### Don't forget about the lowly checkbox

Not as sexy, but very servicable.

### anti-patterns

big ball of mud. meandering way.

borg idiom. tiny targets. mystery meat.

buried treasure. hover and cover.

pogo stick navigation. novel notions.

against the flow. metaphor mismatch.

double duty. linkitus. blind type.

windows aplenty. animation gone wild.

misguided misdirections. unmarked hazards. missed

moments. missing scene.

one at a time. non-symmetrical actions.

### NETFLIX

my blog.

looksgoodworkswell.com

this prez.

billwscott.com/share/presentations/2007/aebos/

my email.

b.scott@yahoo.com

Netflix is hiring!

Sr. Staff UI Engineer
Creative Director
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