Bringing Design to Life

what engineers wish designers knew

eBay
Bill Scott
August 3, 2009

design & engineering

Developers vs Designers

http://flickr.com/photos/urbanwoodswalker/2690236070/

http://flickr.com/photos/f-l-e-x/3096005116/

Developers vs Designers

http://flickr.com/photos/urbanwoodswalker/2690236070/

http://flickr.com/photos/f-l-e-x/309600516/

DHTML developers

Javascript developers

PHP/JSP/ASP developers

Produce site code

Visual designers

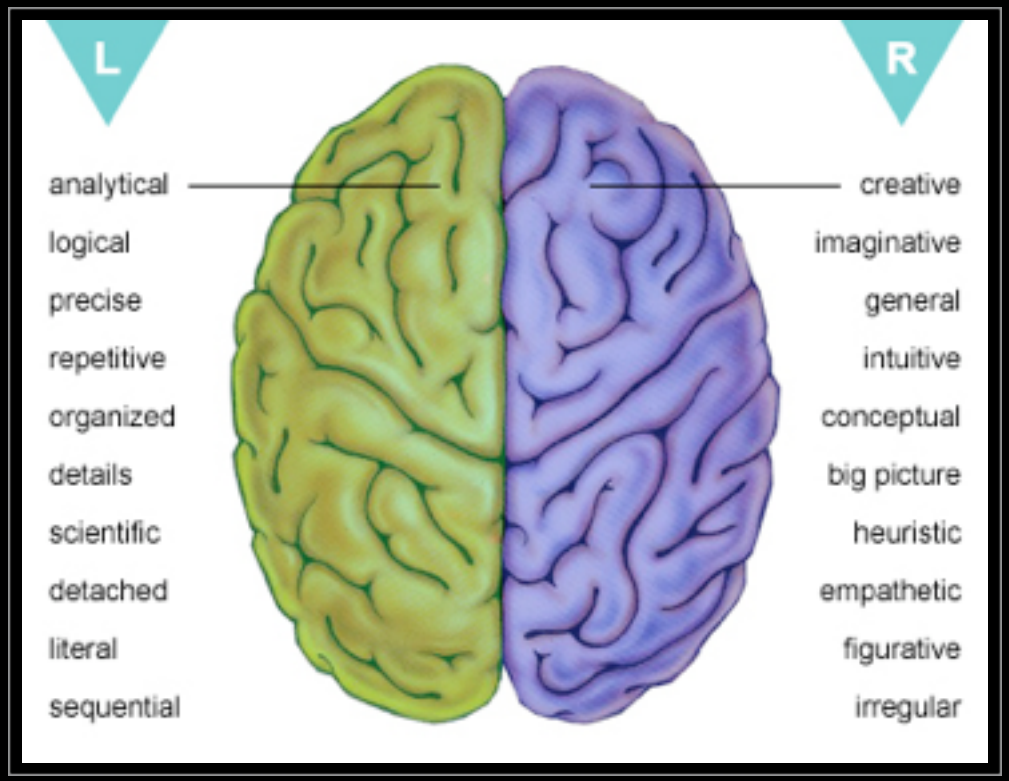
Information architects

Interaction designers

Produce designs & assets

Two Worlds?

http://irenepereyra.blogspot.com/2007/03/left-brain-vs-right-brain.html



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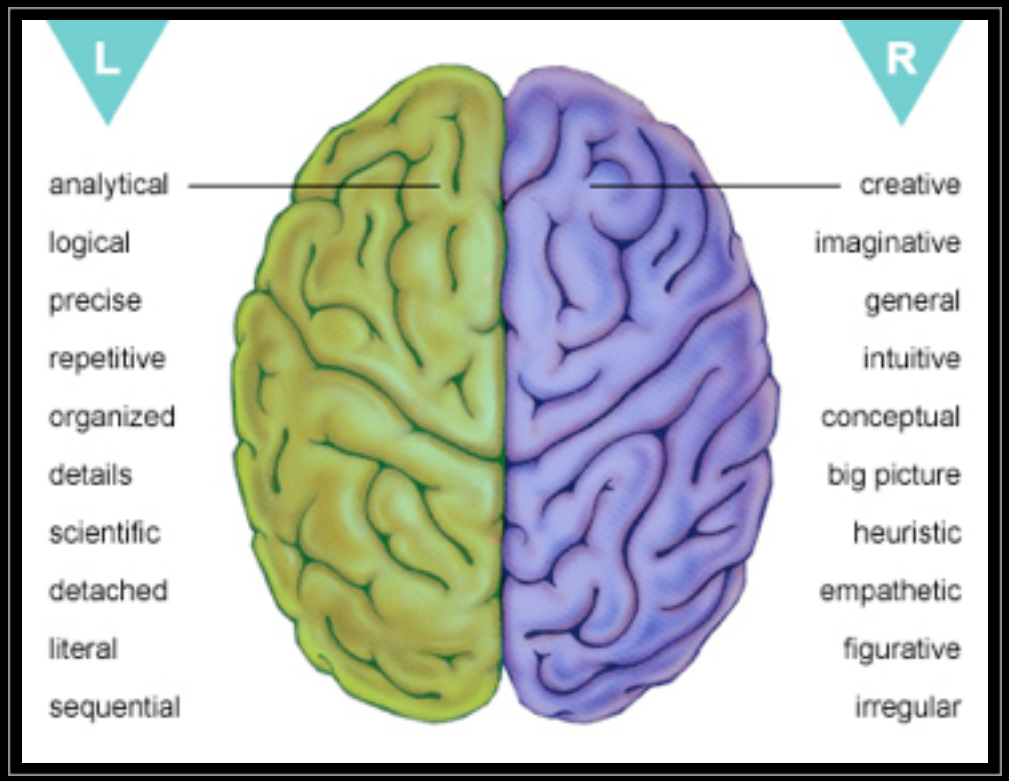

Implementation focus

Constrained by browsers

Inspiration focus

Constrained by ideation

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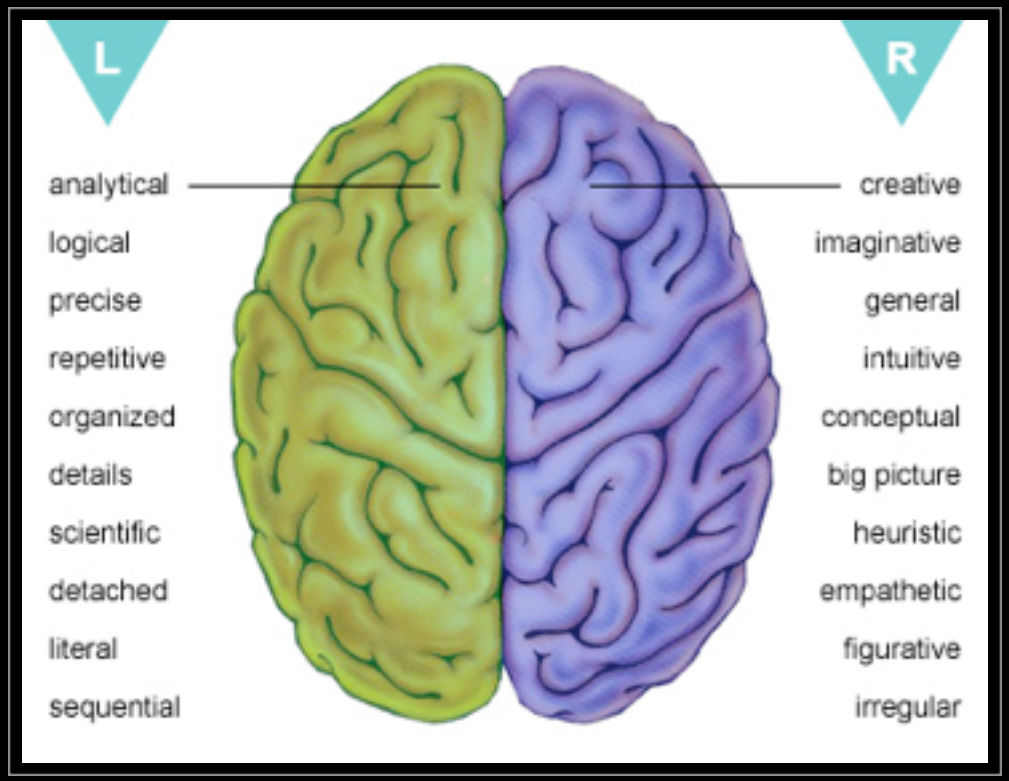

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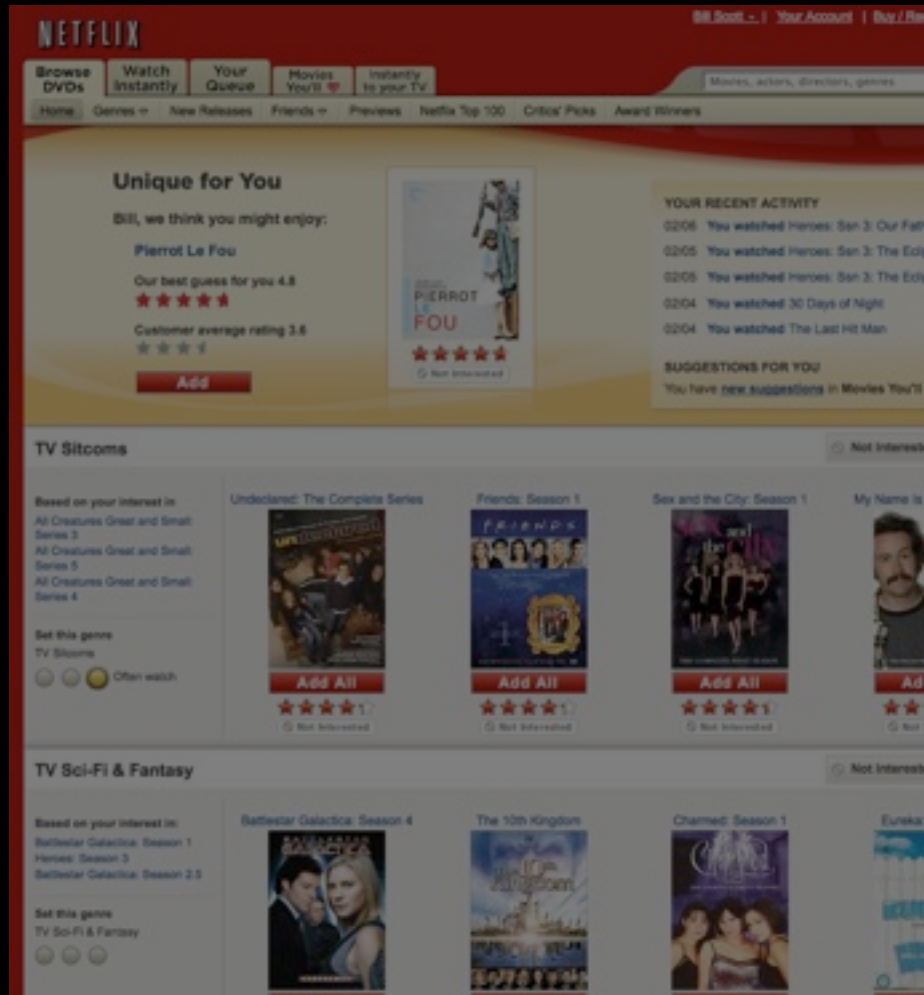
In reality, some developers have a very creative flair and some designers are very logical.

Nevertheless, the concerns of each role create a natural division between the two worlds.

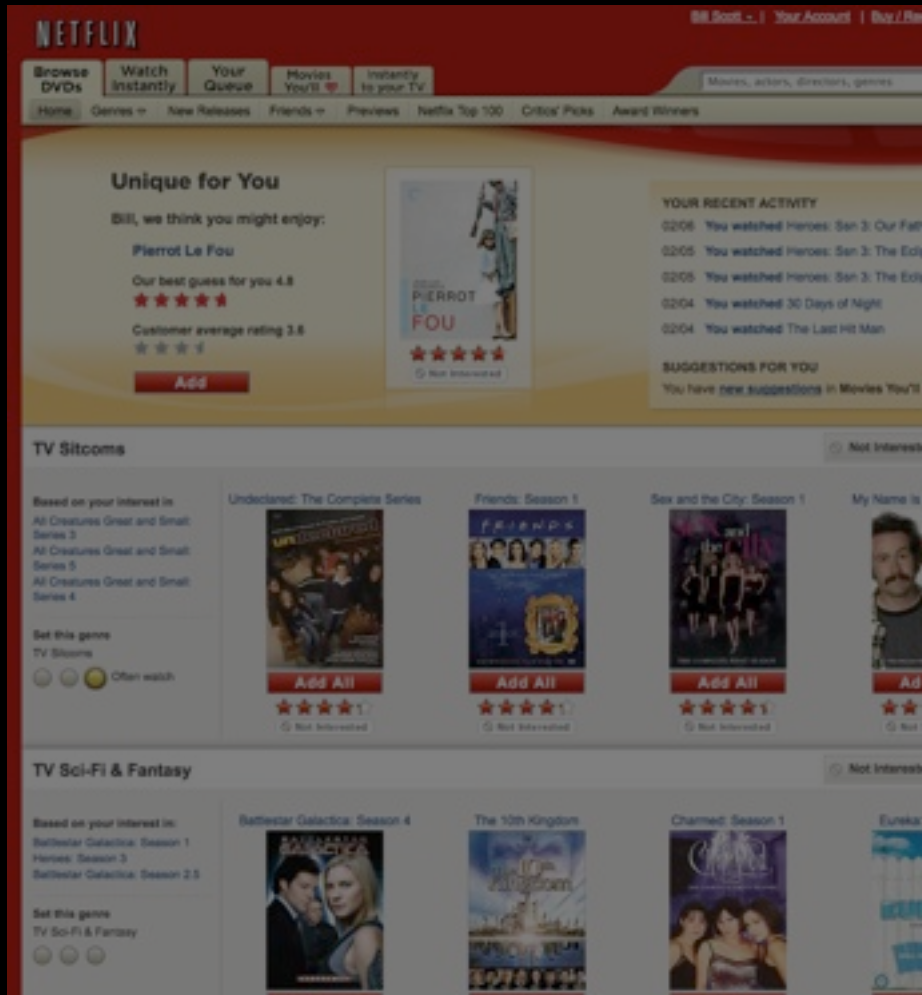
UI Engineering @ Netflix



UI Engineering @ Netflix

Elsewhere called

Web dev, front end engineer (Y!), interface engineer



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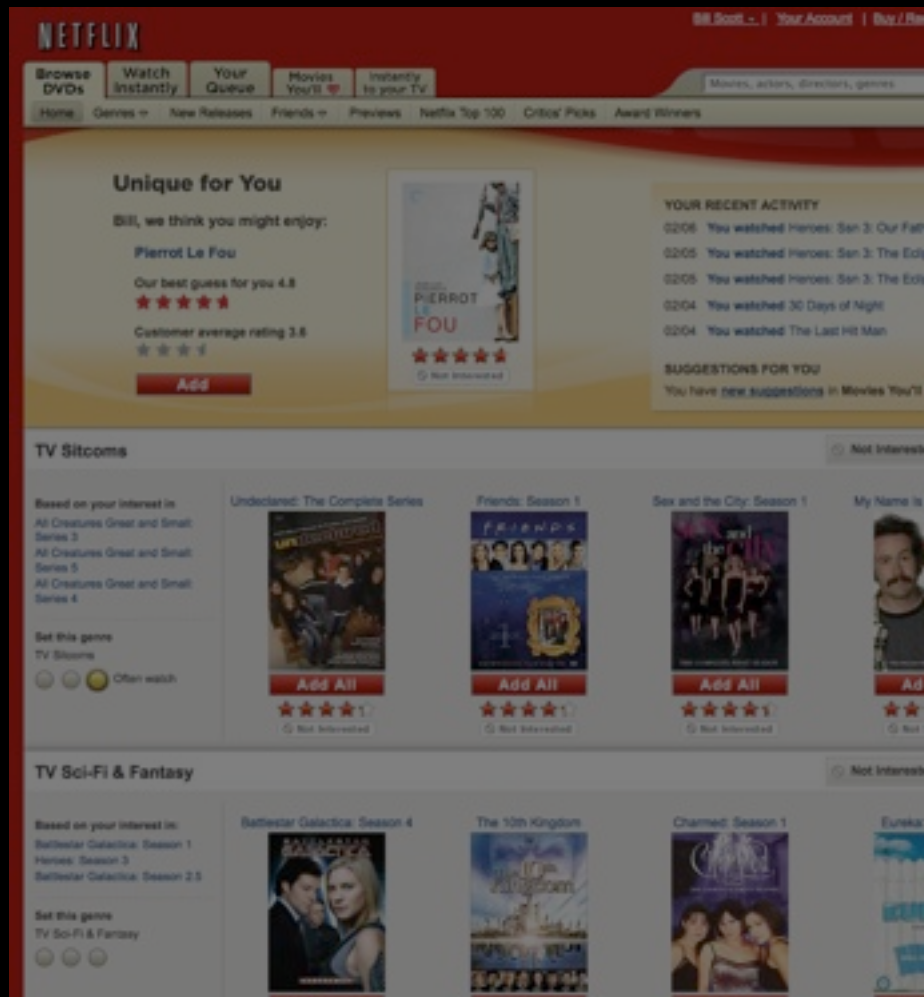
HTML, CSS, Javascript, Java, JSP, frameworks (like Struts, Tiles, jquery)



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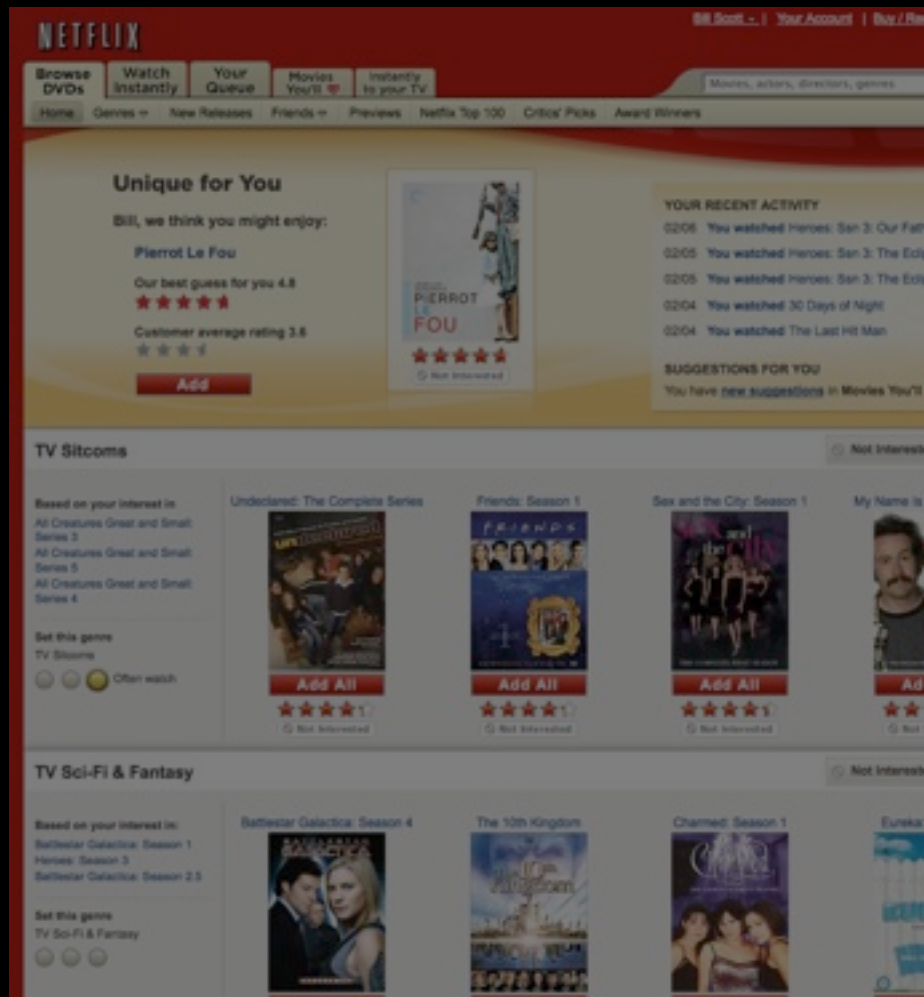

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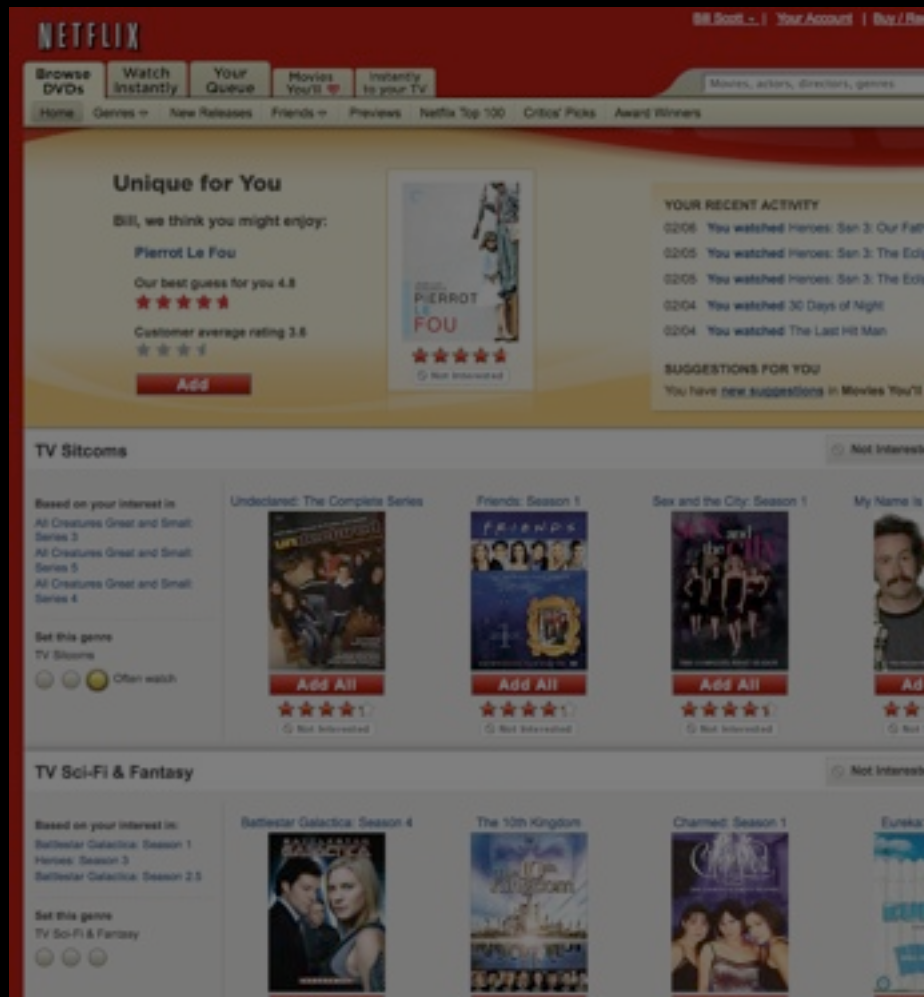

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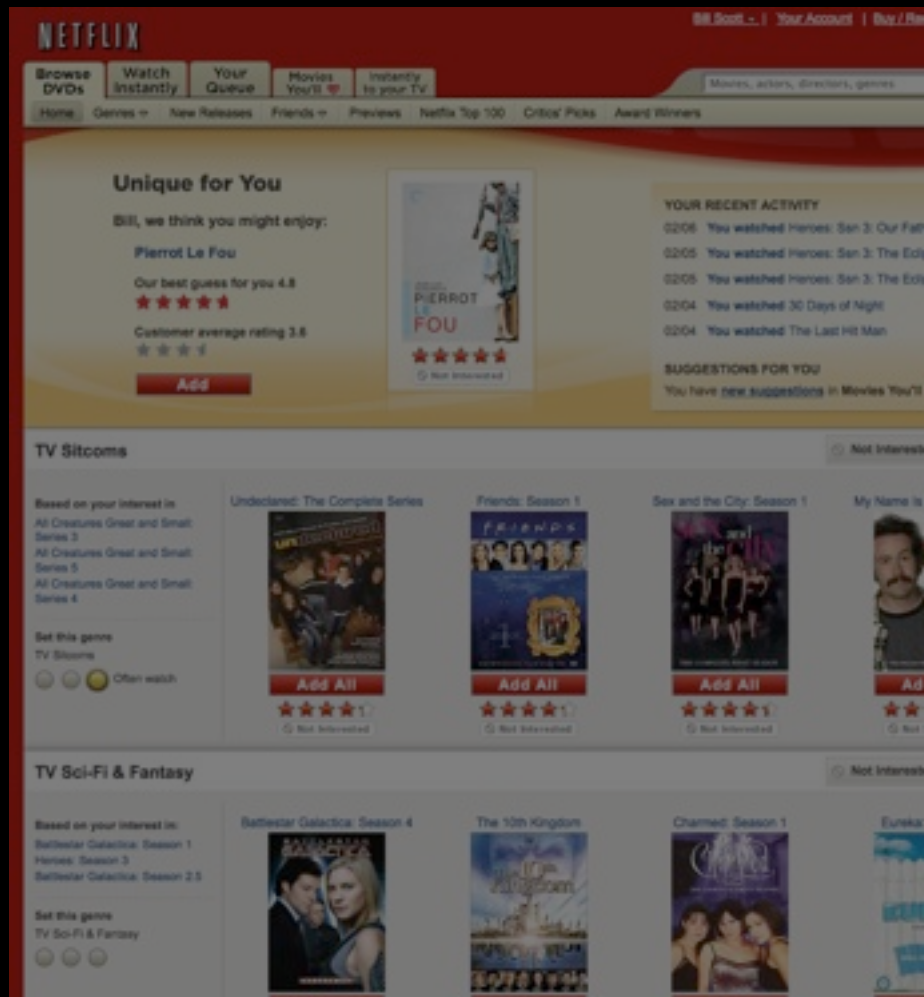
As rapid and as early as possible



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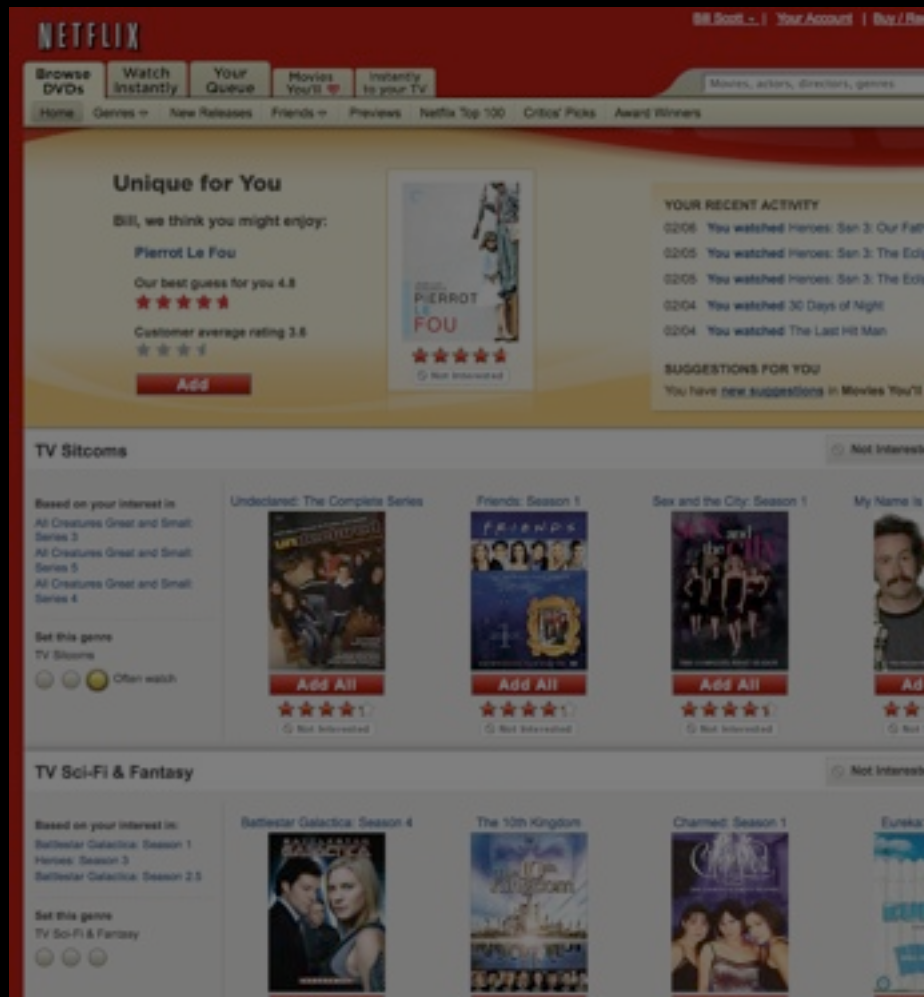
As rapid and as early as possible

Weekly roundtables to discuss details

Constant communication is critical



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Not just the form

Not just the function

But the artful blend of form and function

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Must look good and also work well

Not just in photoshop, but a living experience for the user

Must look good and also work well

guiding principles for designers

what engineers wish you understood...

1. the site is dynamic

photoshop is static.

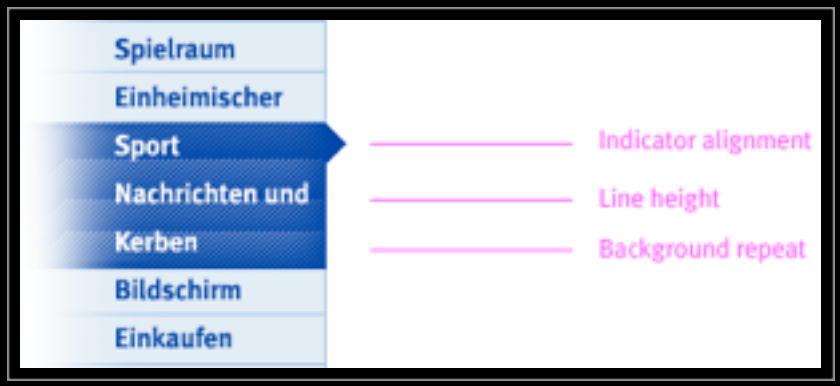
the site is not.

Dynamic Content

dynamic

"Content is a big part of your design. don't forget about it. integrate it. make it functional." (Nate Koechley)

"There's always less space in the design for text once you translate to German." (Nicholas Zakas)



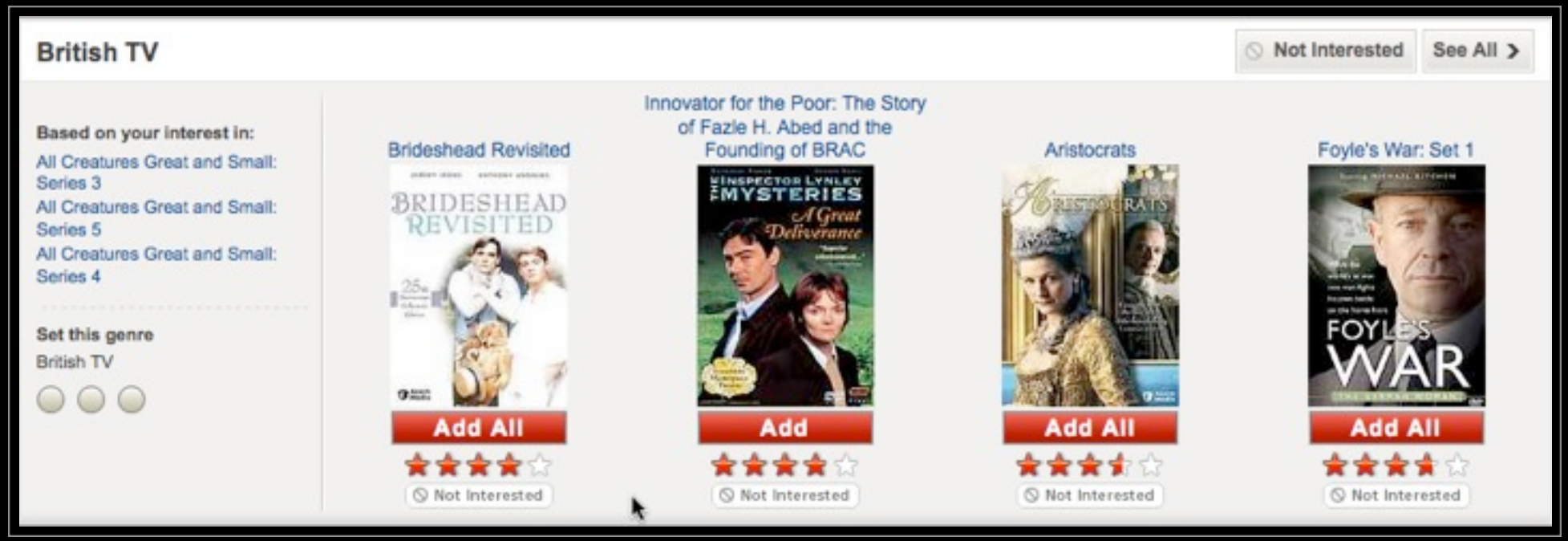
Credit: Scaleable Design by Luke Wroblewski
http://www.uxmatters.com/mt/archives/2007/10/scalable-design.php

Dynamic Content

dynamic

Even something as simple as a title.

Rarely do long titles show up in comps produced in photoshop.



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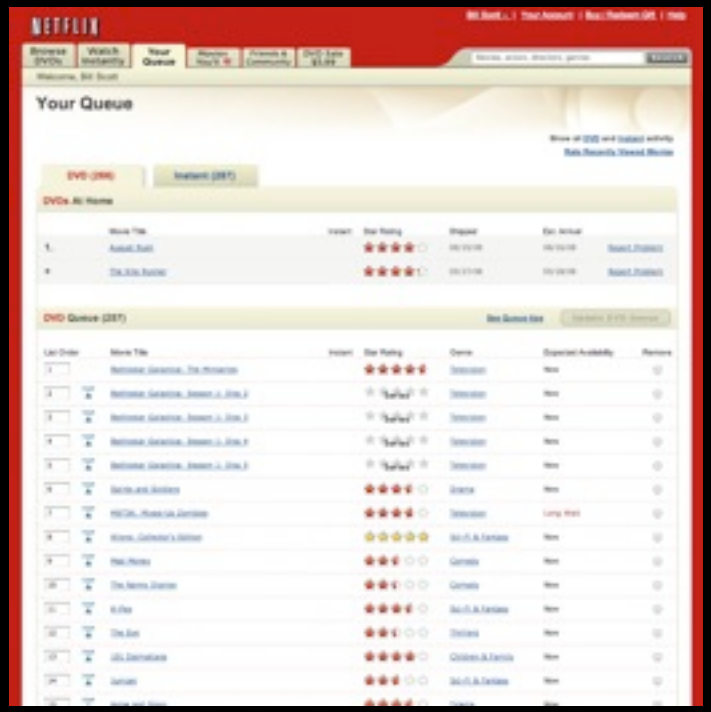
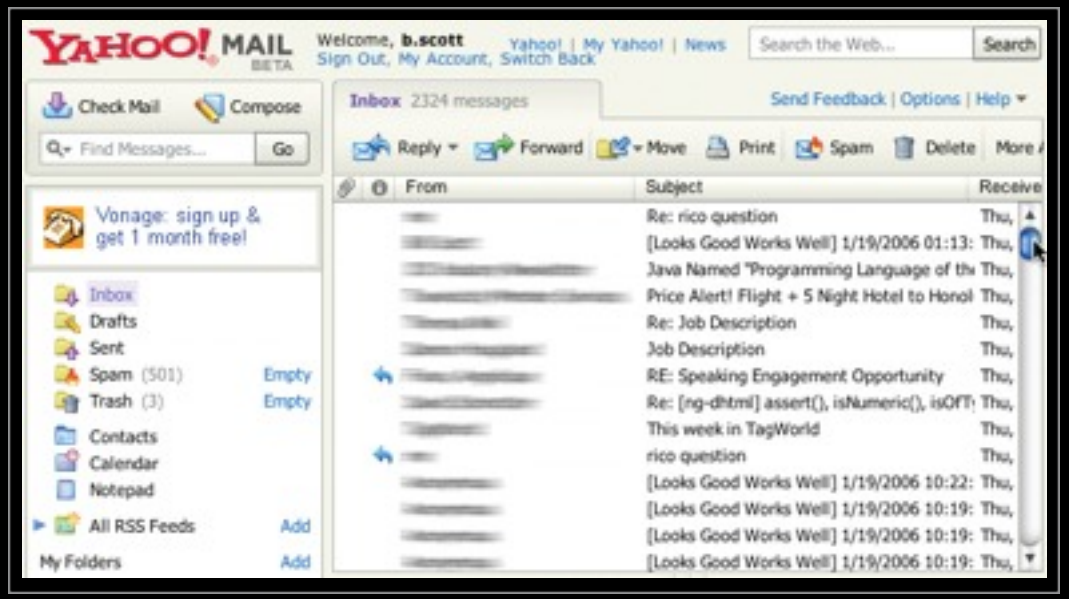
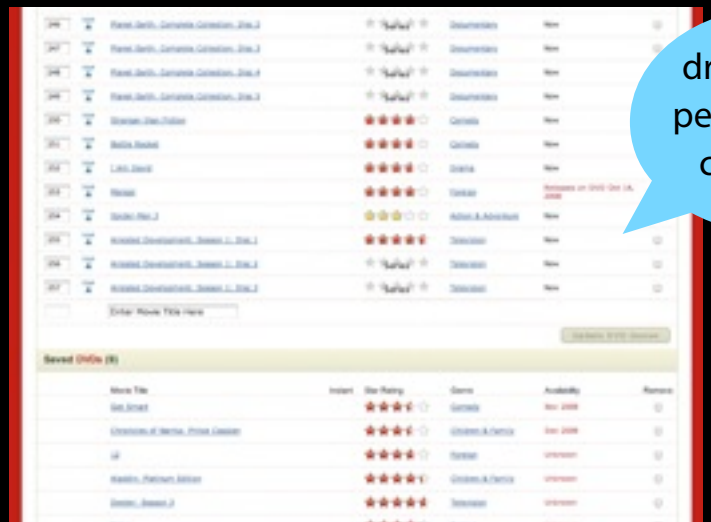


excerpt from a large member queue on Netflix





drag & drop, performance, chunking

Dynamic Content

dynamic

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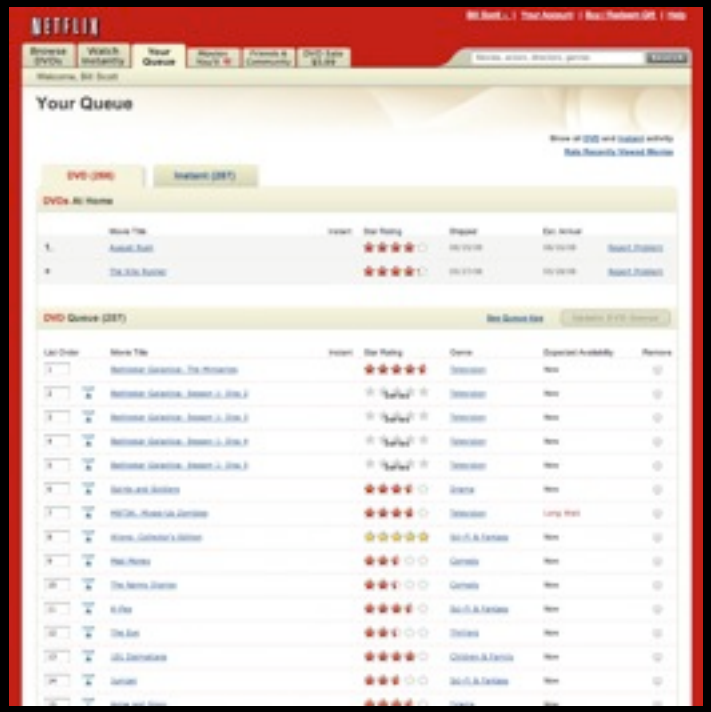

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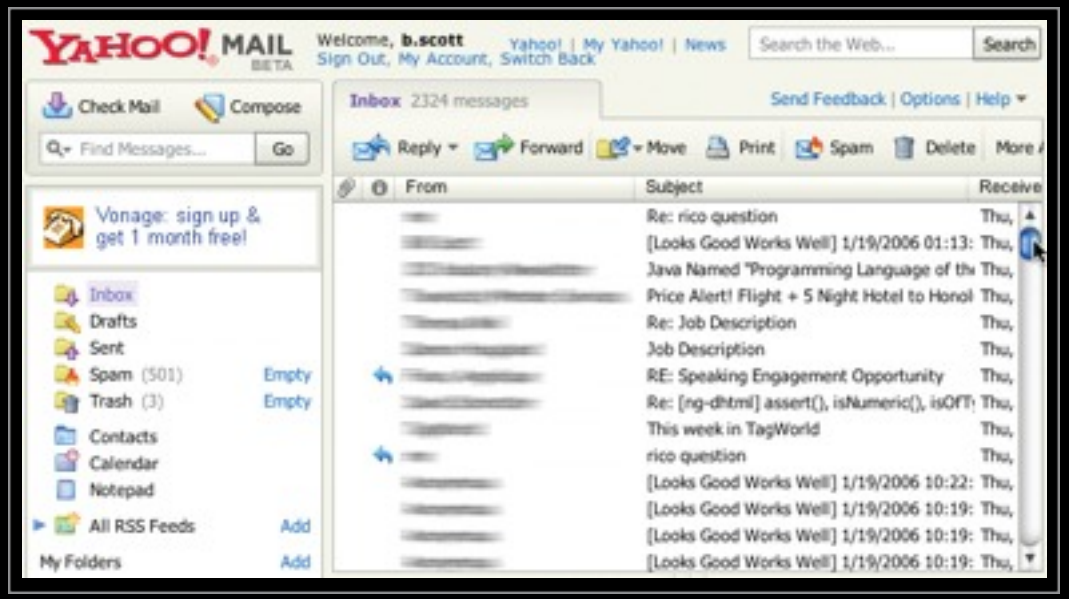

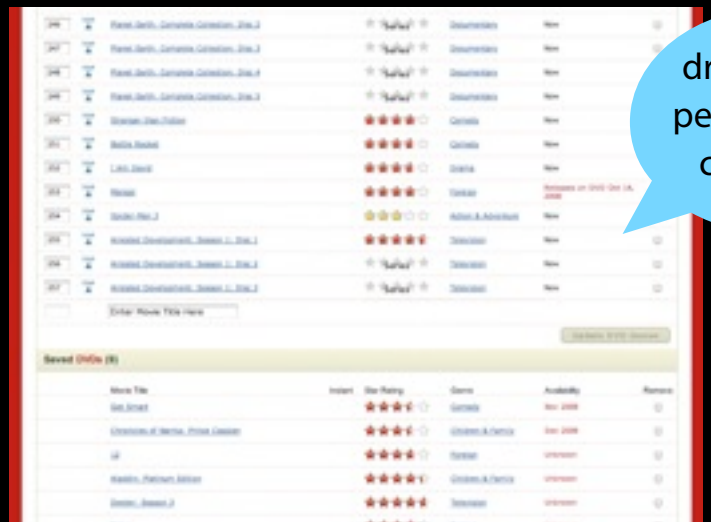

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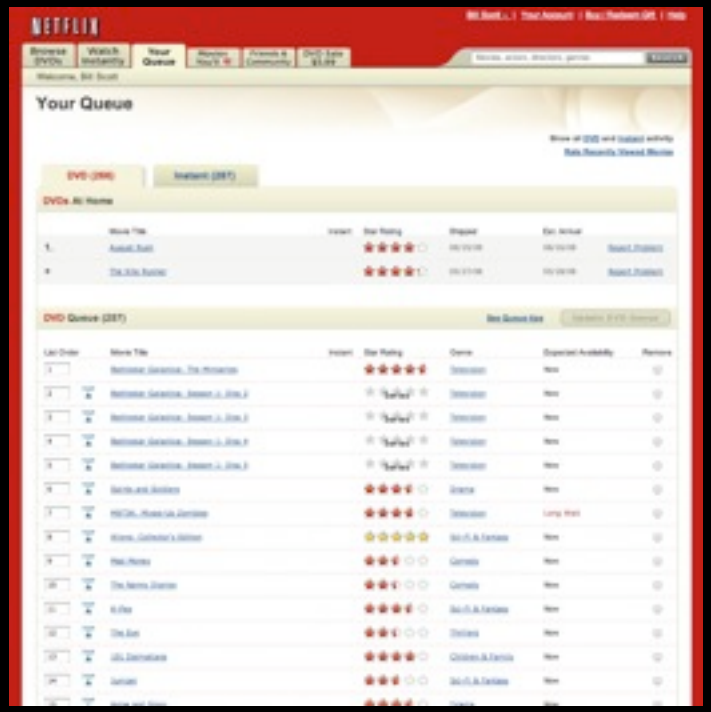

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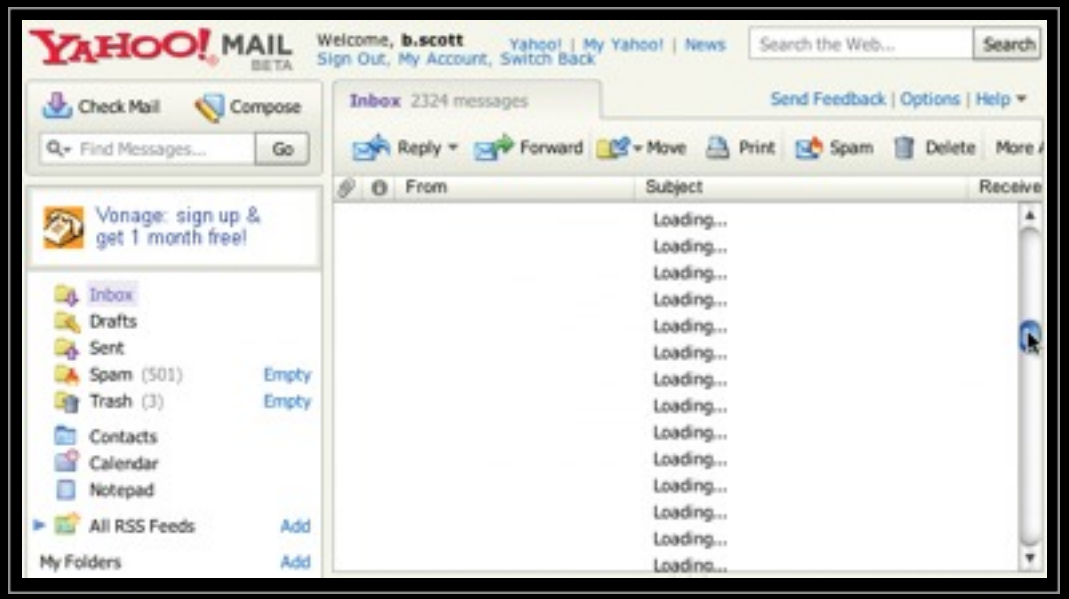

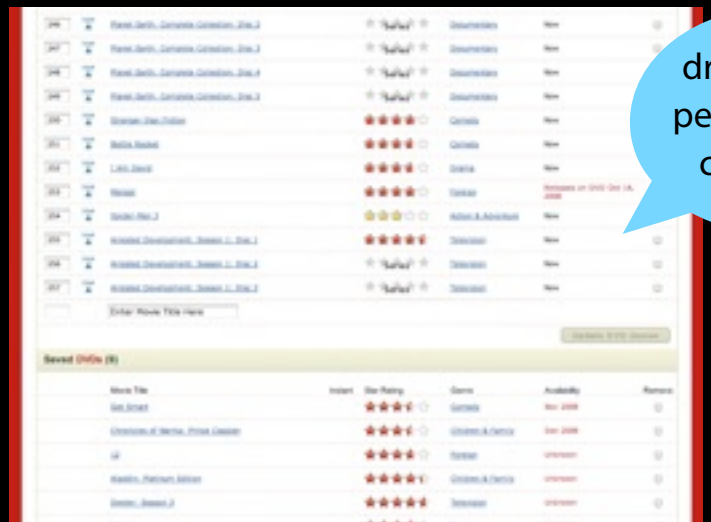

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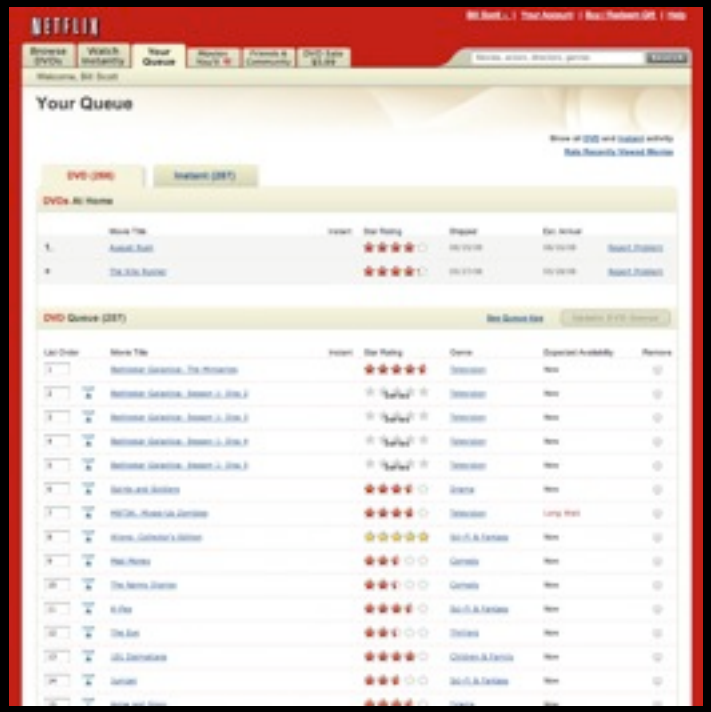

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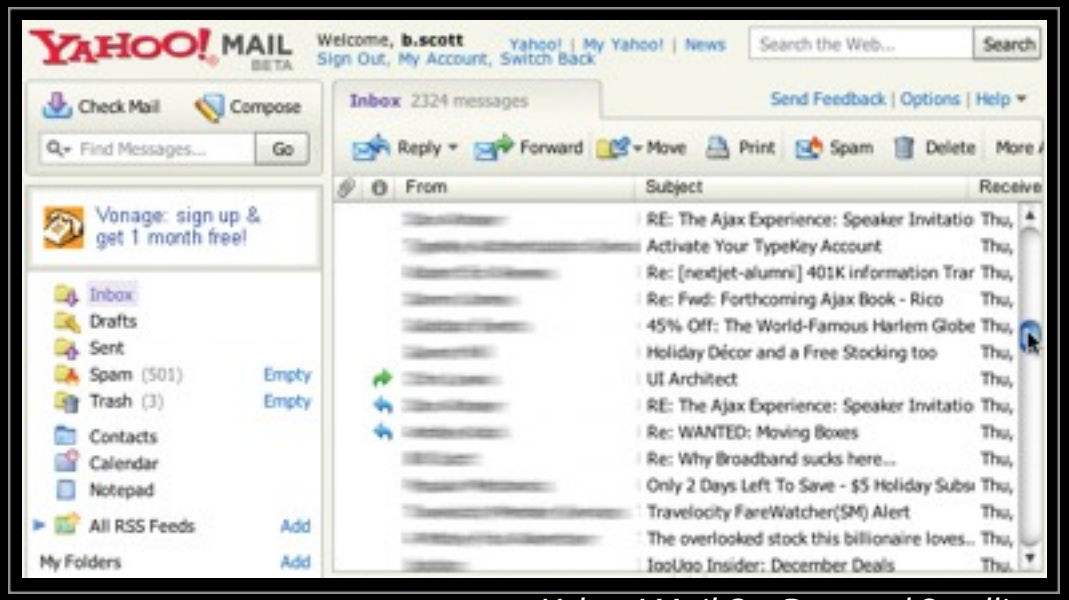
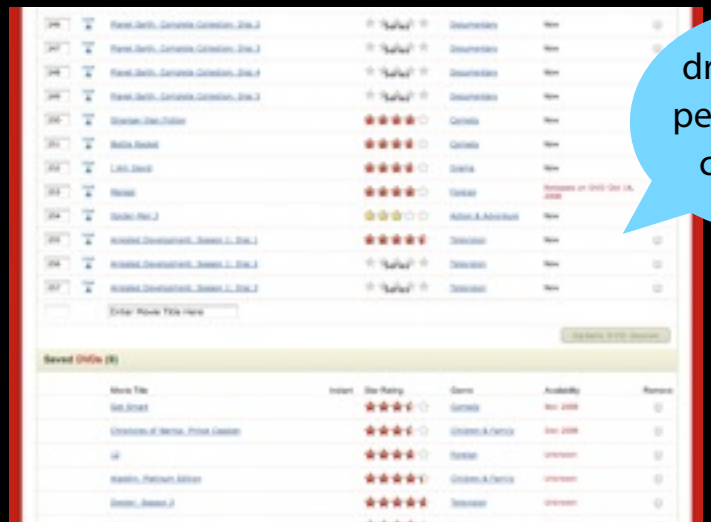


Yahoo! Mail On-Demand Scrolling



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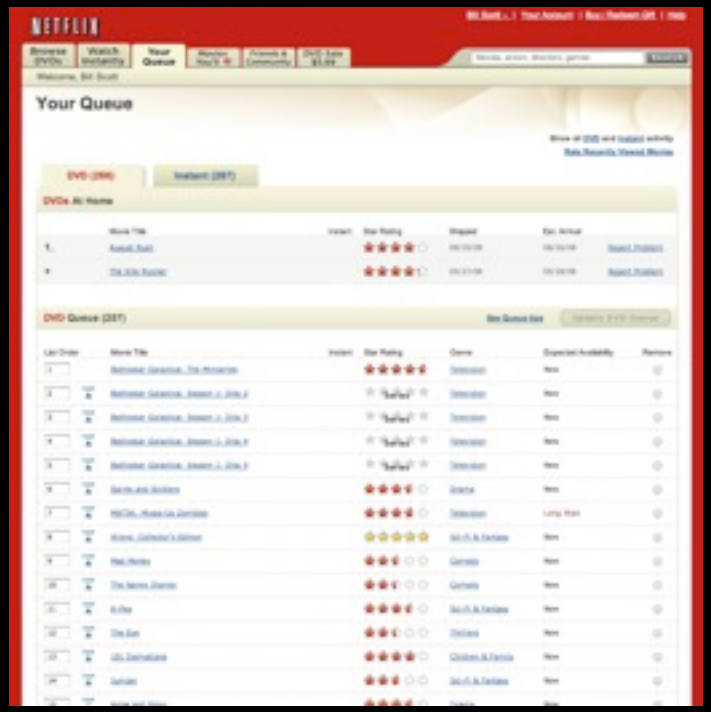

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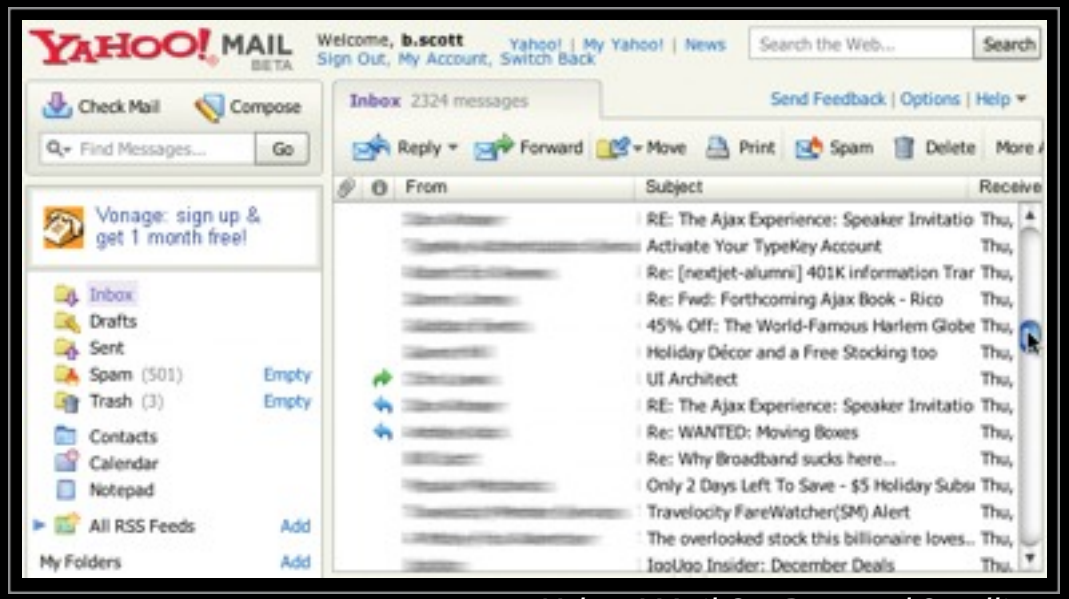

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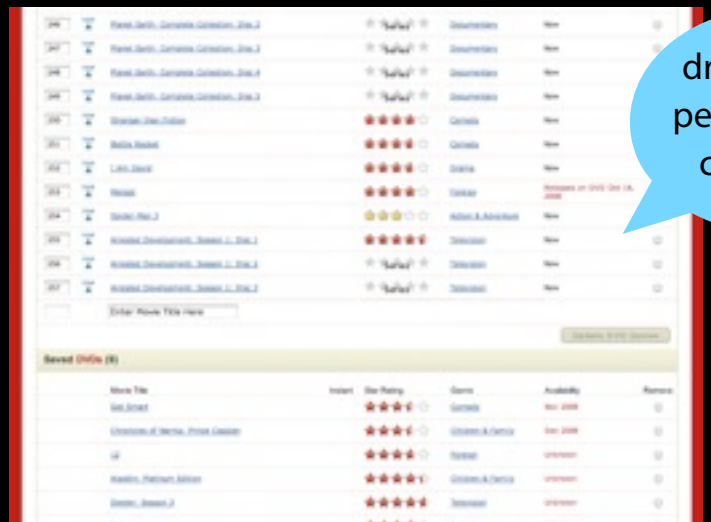

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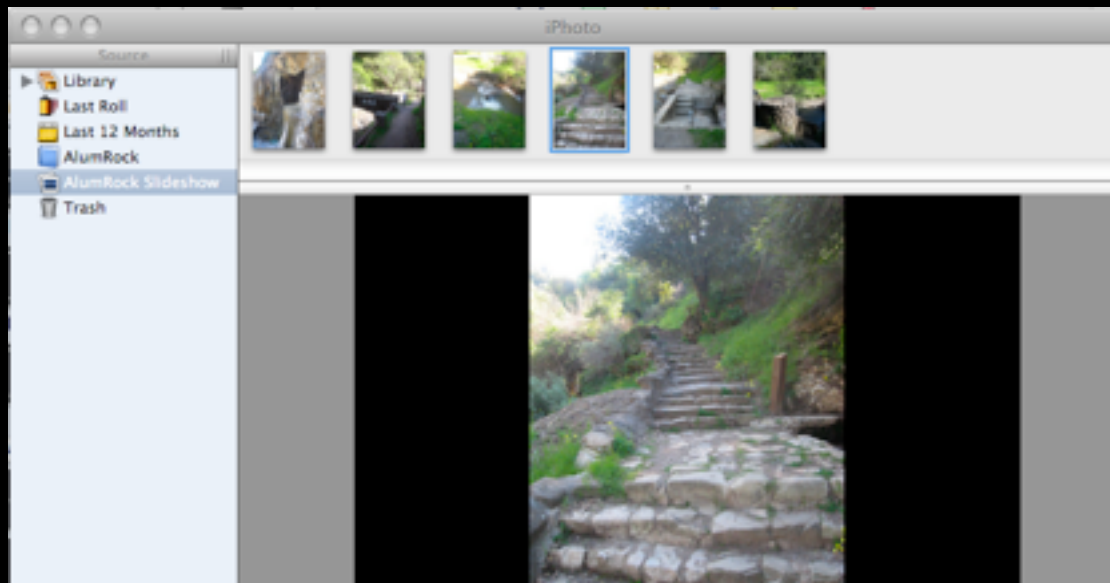


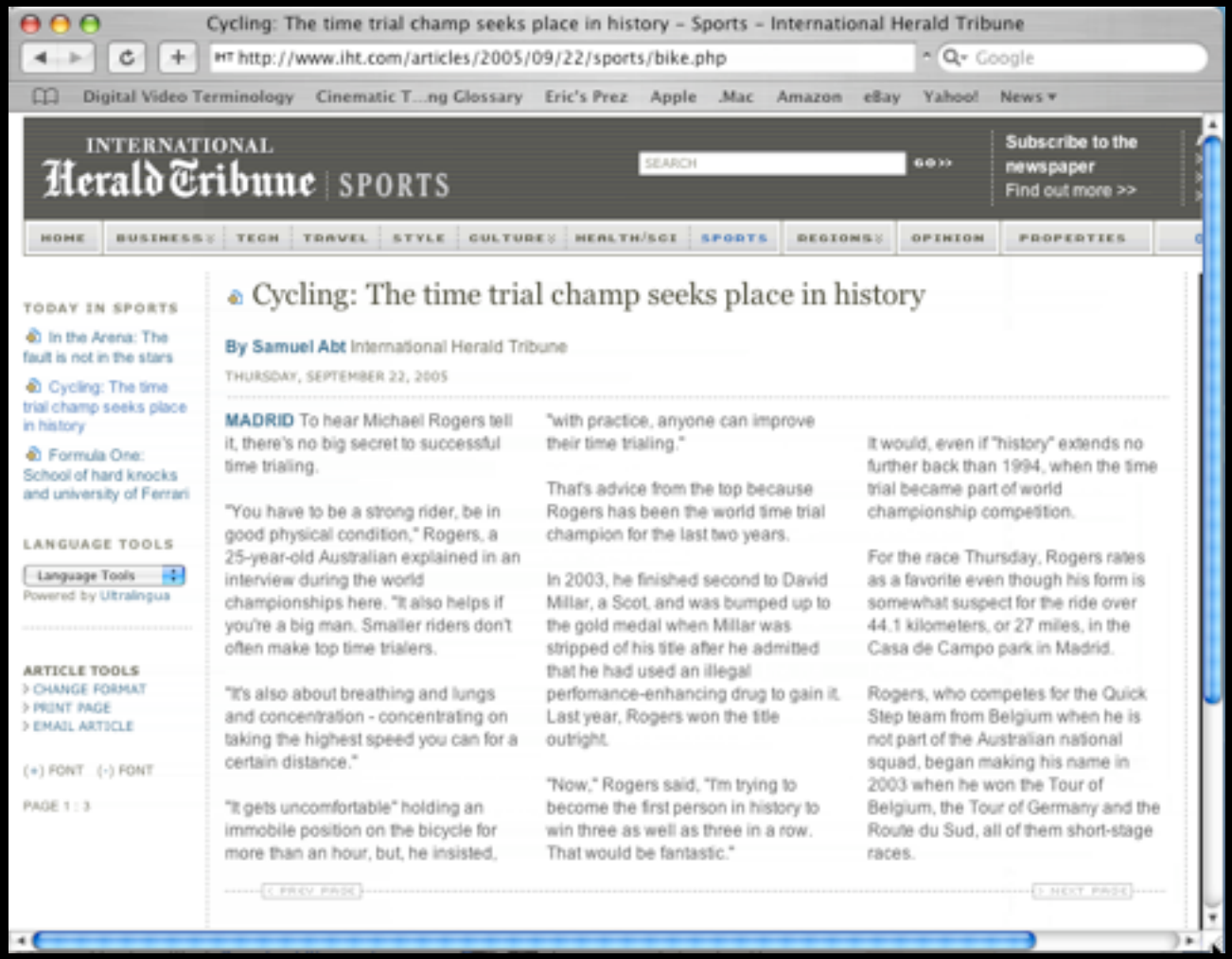
Dynamic Layout

dynamic

Think about the resize event

Design for different formats when necessary

What about the scroll bar?



dynamic layout in International Herald Tribune

Dynamic Layout

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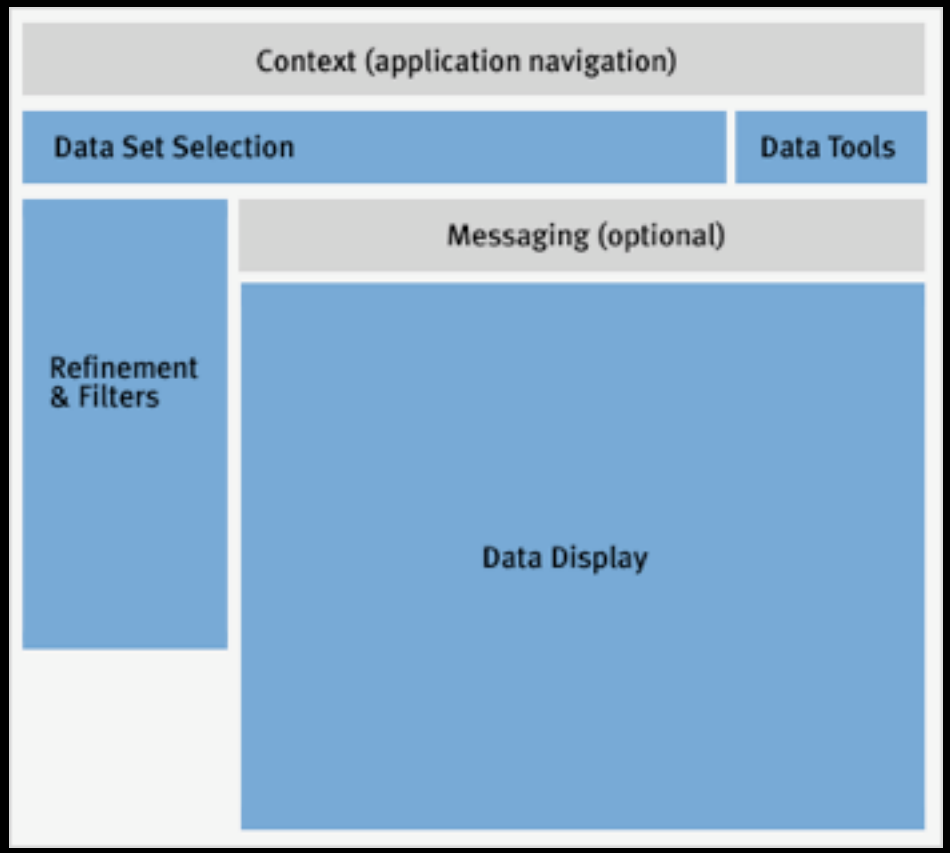
Scaleable Design



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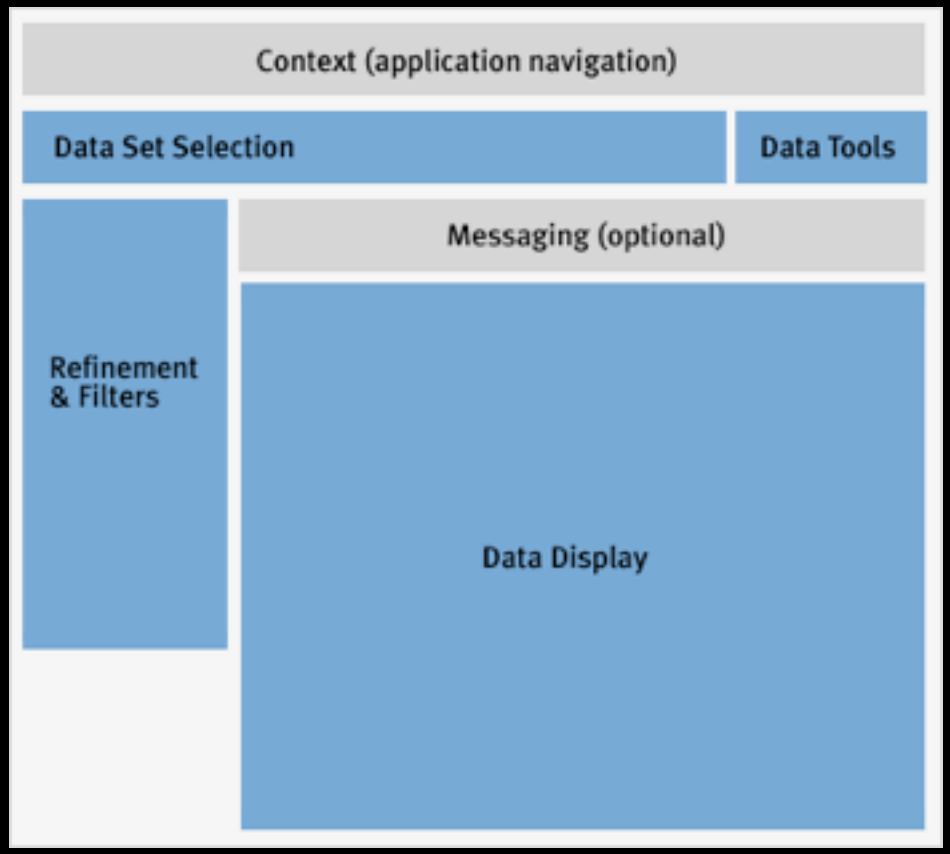

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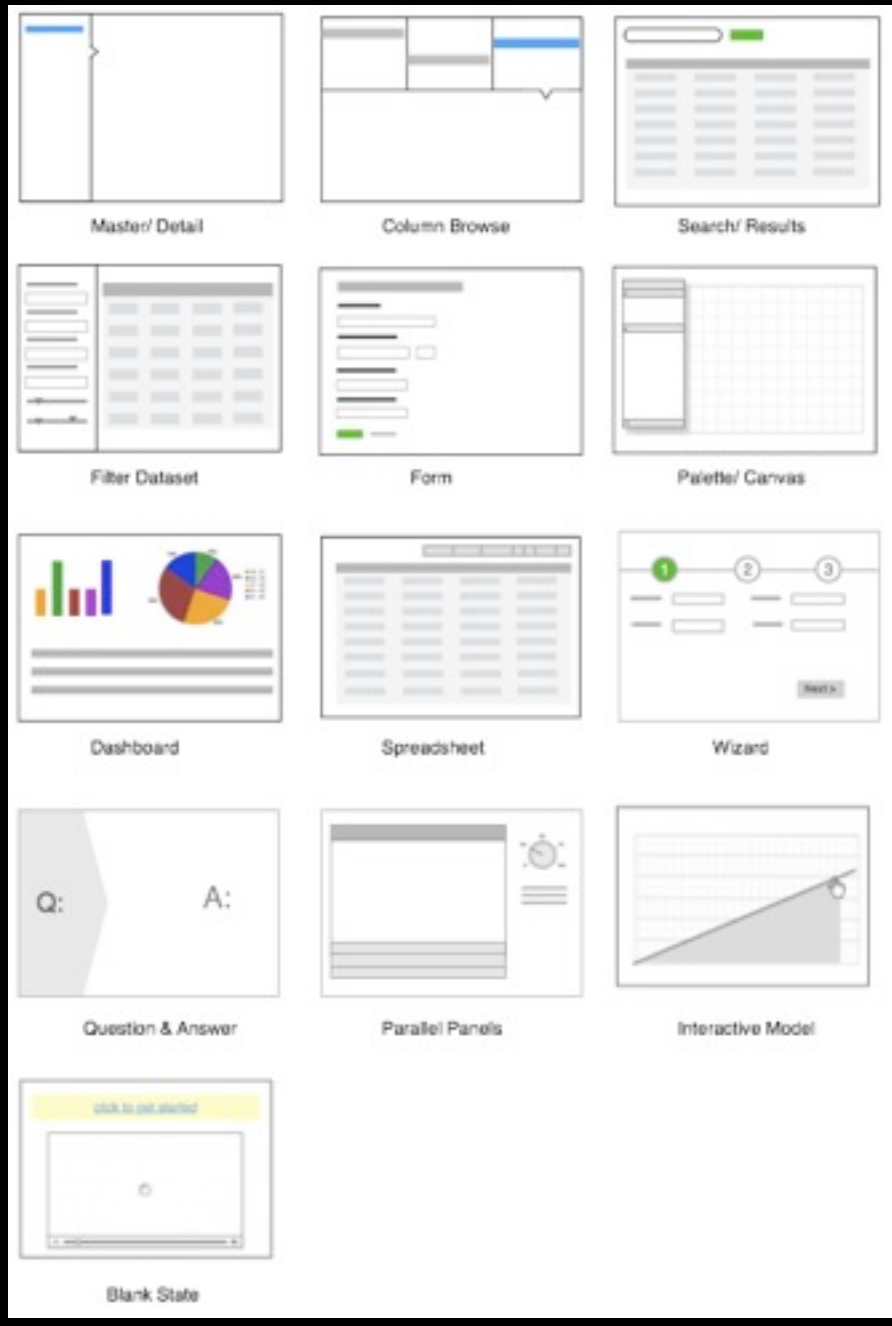
dynamic

Designing Web Interfaces: 12 Screen Patterns
http://tinyurl.com/8kr6yq



Current Moon Phase

youtube :: top rated

- DEADLINE post-it stop motion
- Summer and Ending Hunger (Ep.11)
- Unite Against WMG

National Geographic POD

POD -

Google Webmaster Tools

Stock Market

HowStuffWorks.com Daily Feed

- Top 5 Energy-efficient Computers
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Simple Interaction?

Current Moon Phase

Waning Crescent
16% of Full
Sat 18 Jul, 2009
11:38 AM

Gadget | Recommended | Past/Future Moons

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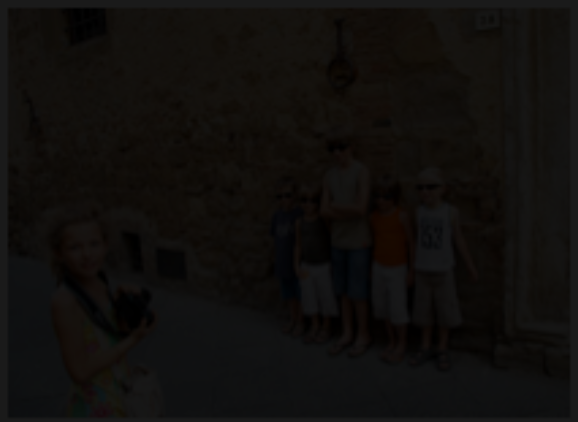

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Dynamic Interaction. Events...

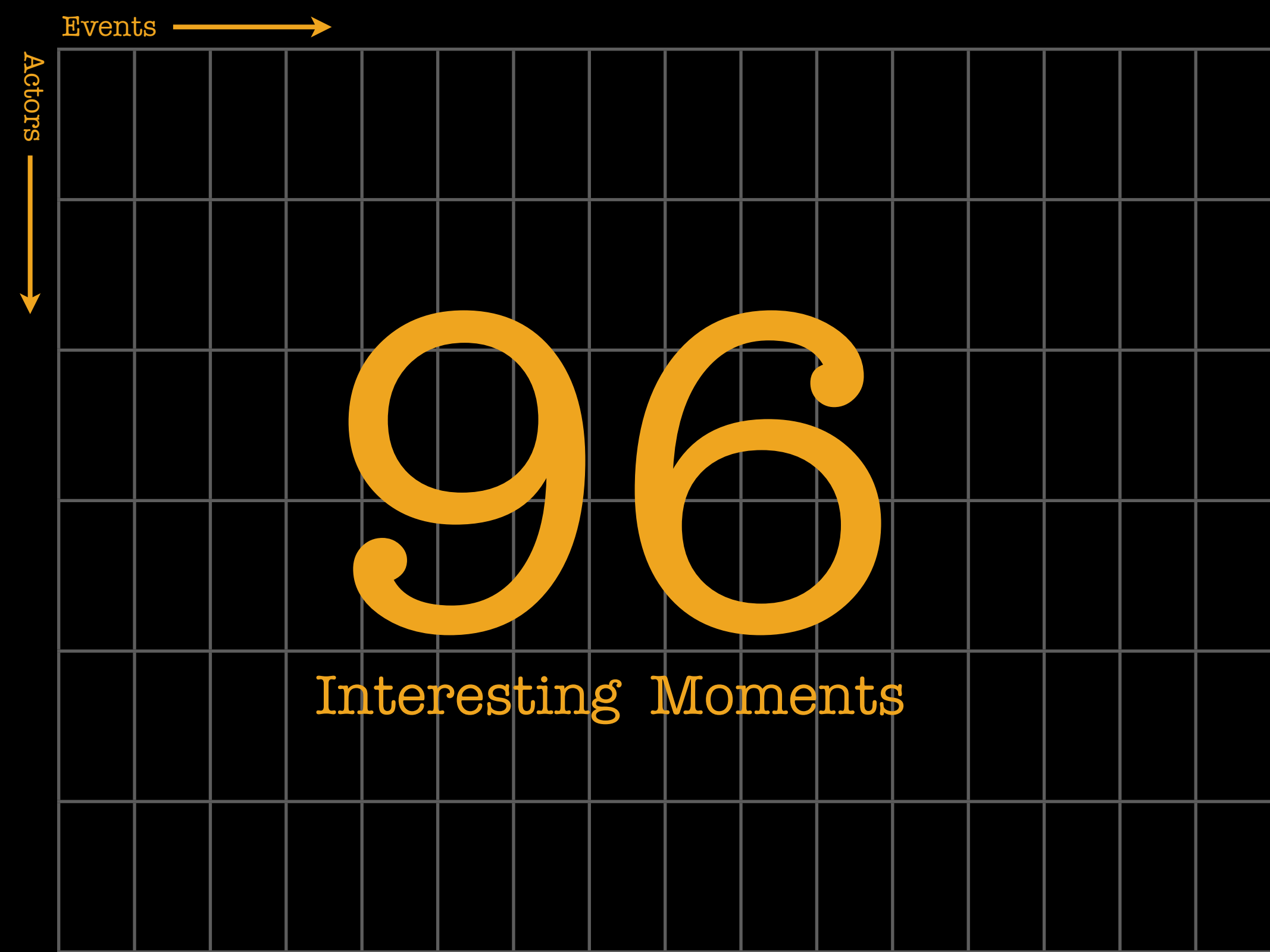
dynamic

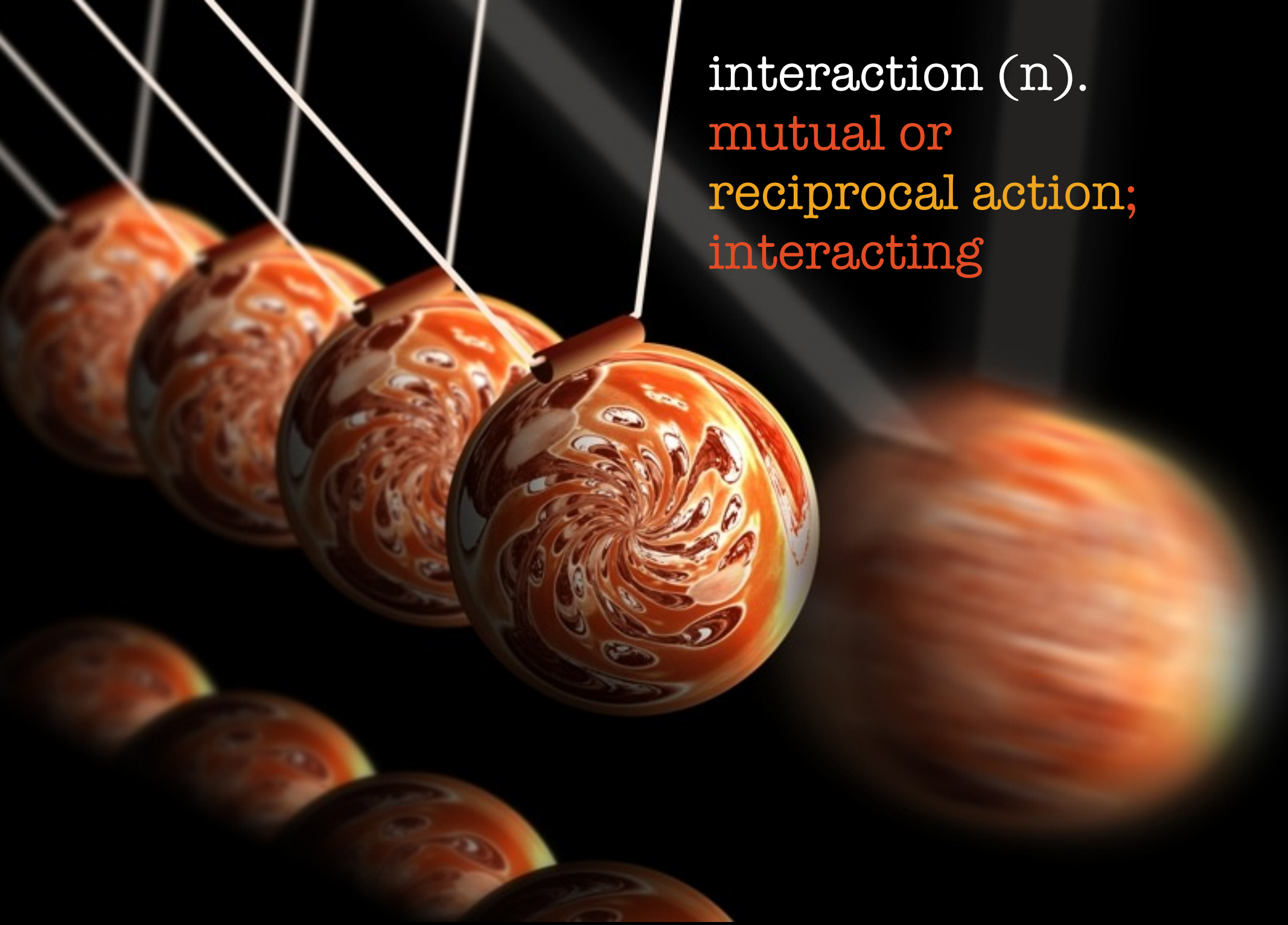
Page load. Mouse hover. Mouse down. Drag initiated. Drag leaves original location. Drag re-enters original location. Drag re-enters original location. Drag enters valid target. Drag exits valid target. Drag enters specific invalid target. Drag is over no specific target. Drag hovers over valid target. Drag hovers over invalid target. Drop accepted. Drop rejected. Drop on parent container.

Dynamic Interaction. Actors...

dynamic

Page. Cursor. Tool Tip. Drag Object. Drag Object's Parent Container. Drop Target.


Events
Actors
96
Interesting Moments


interaction (n).
mutual or
reciprocal action;
interacting

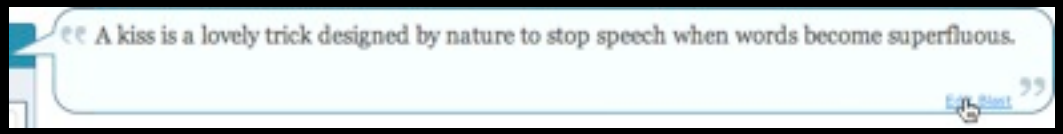
Dynamic Interaction

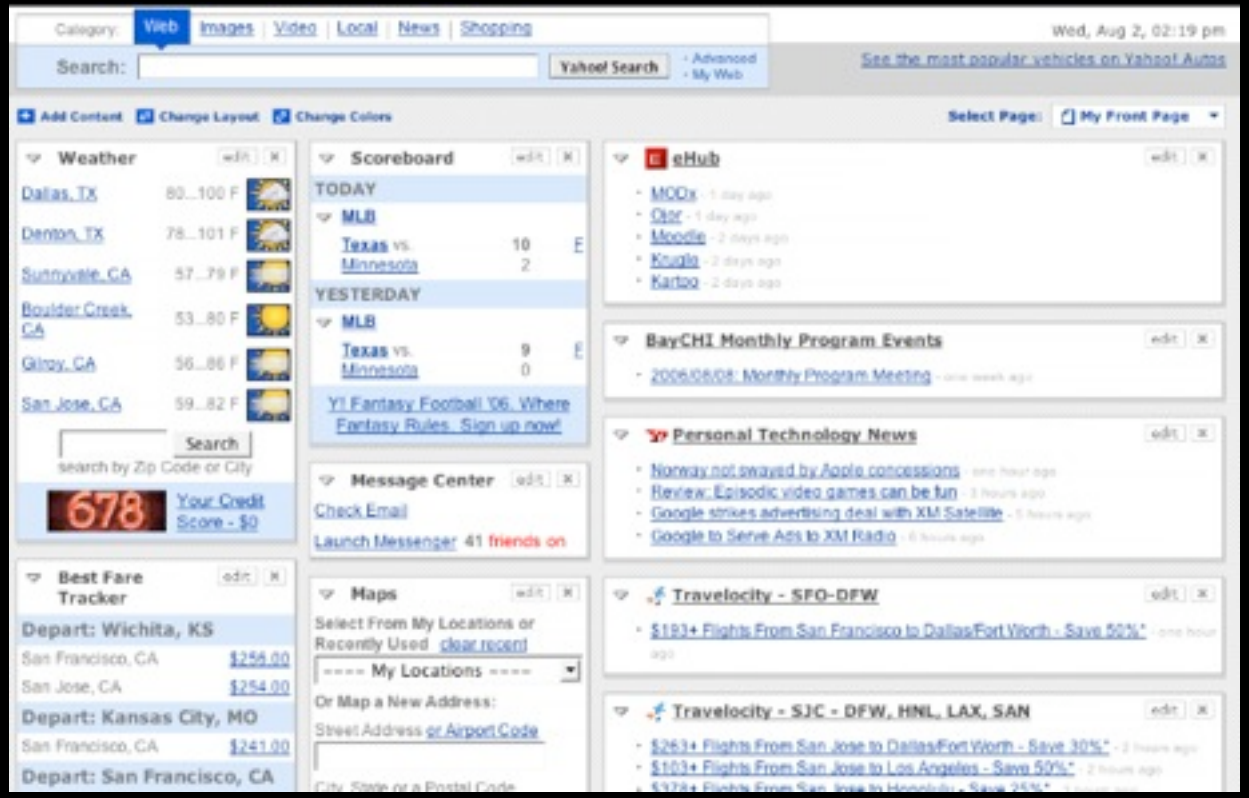
dynamic

Design for interesting moments up front

Prototype, prototype, prototype

Avoids lots of expensive rework





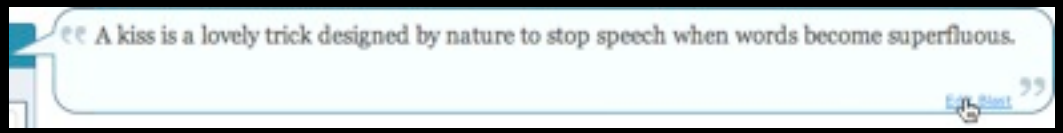
Dynamic Interaction

dynamic

Design for interesting moments up front

Prototype, prototype, prototype

Avoids lots of expensive rework



thoughtful approach to blending modes. Yahoo! 360

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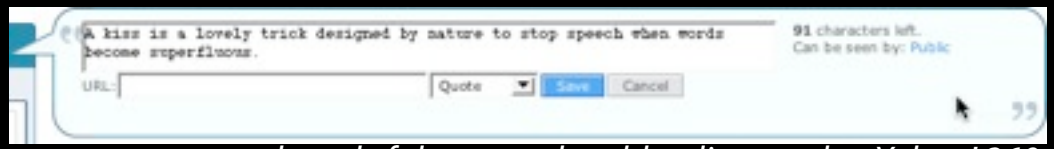

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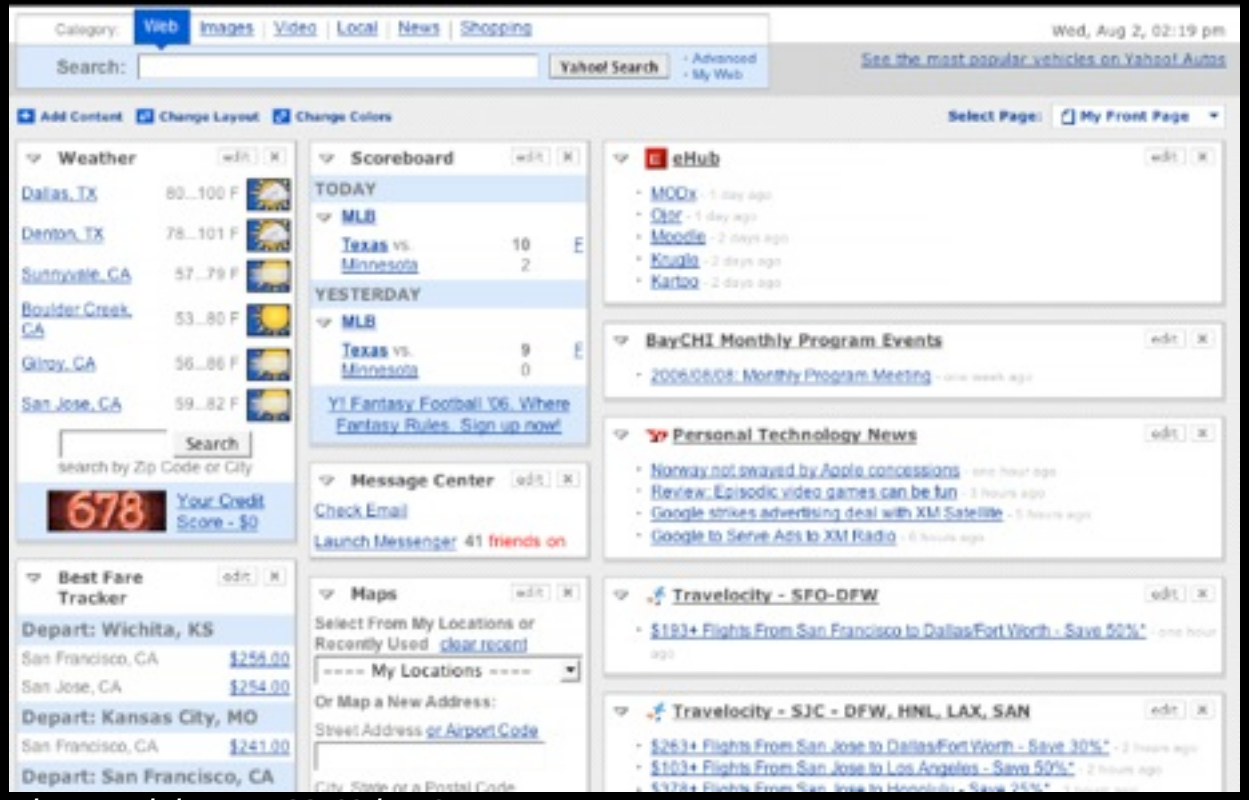

drag and drop on My Yahoo!

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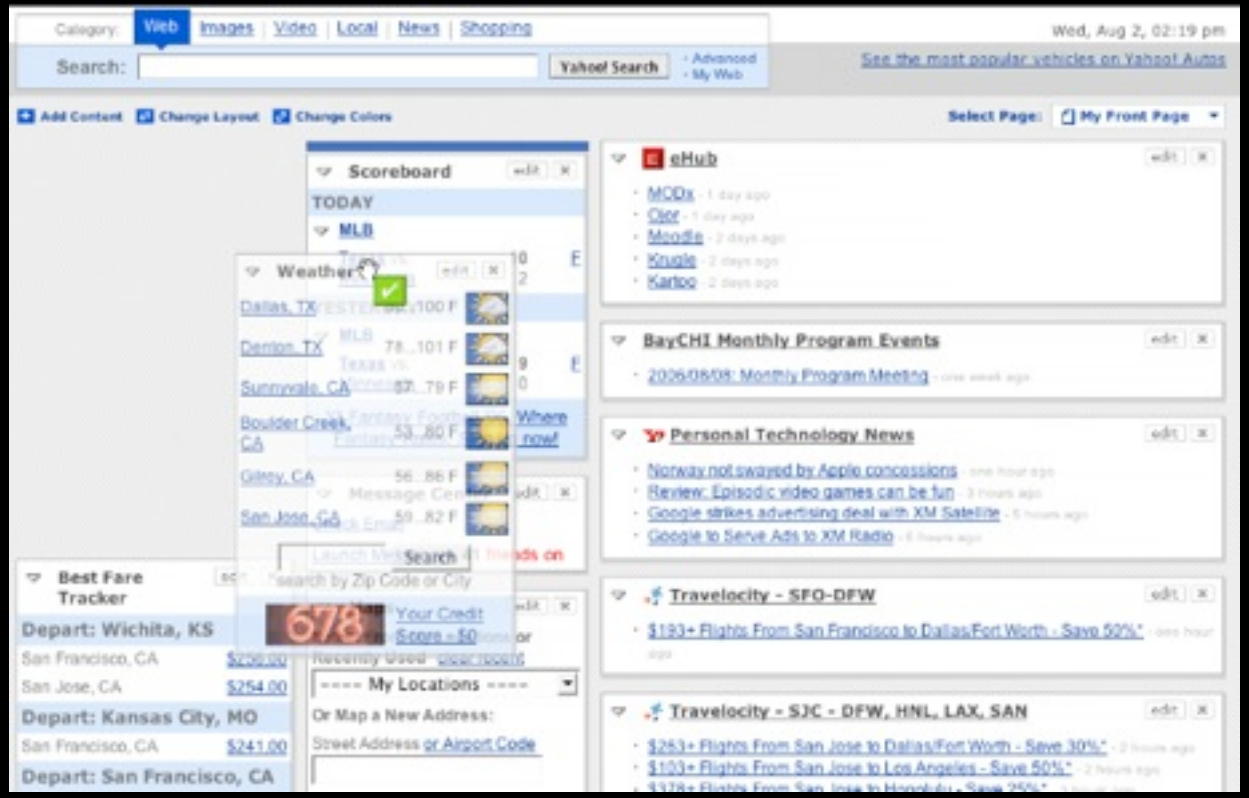

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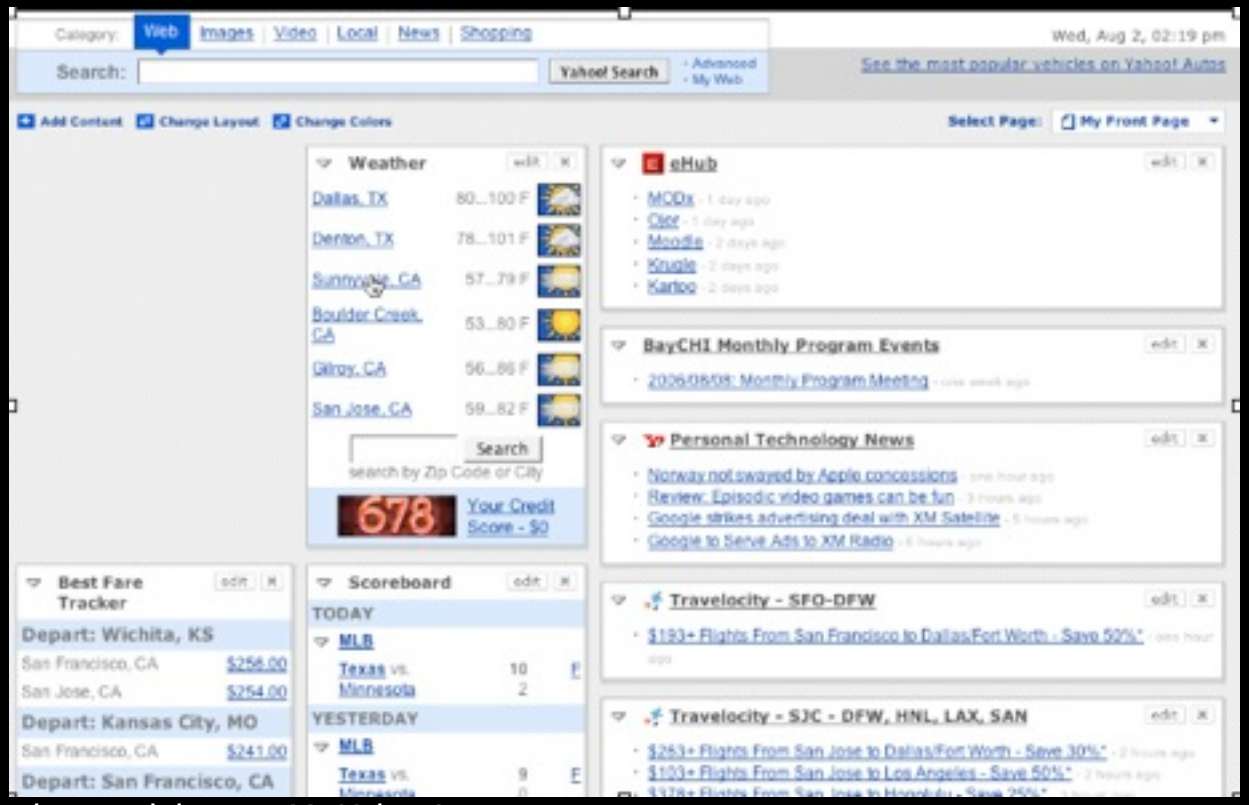

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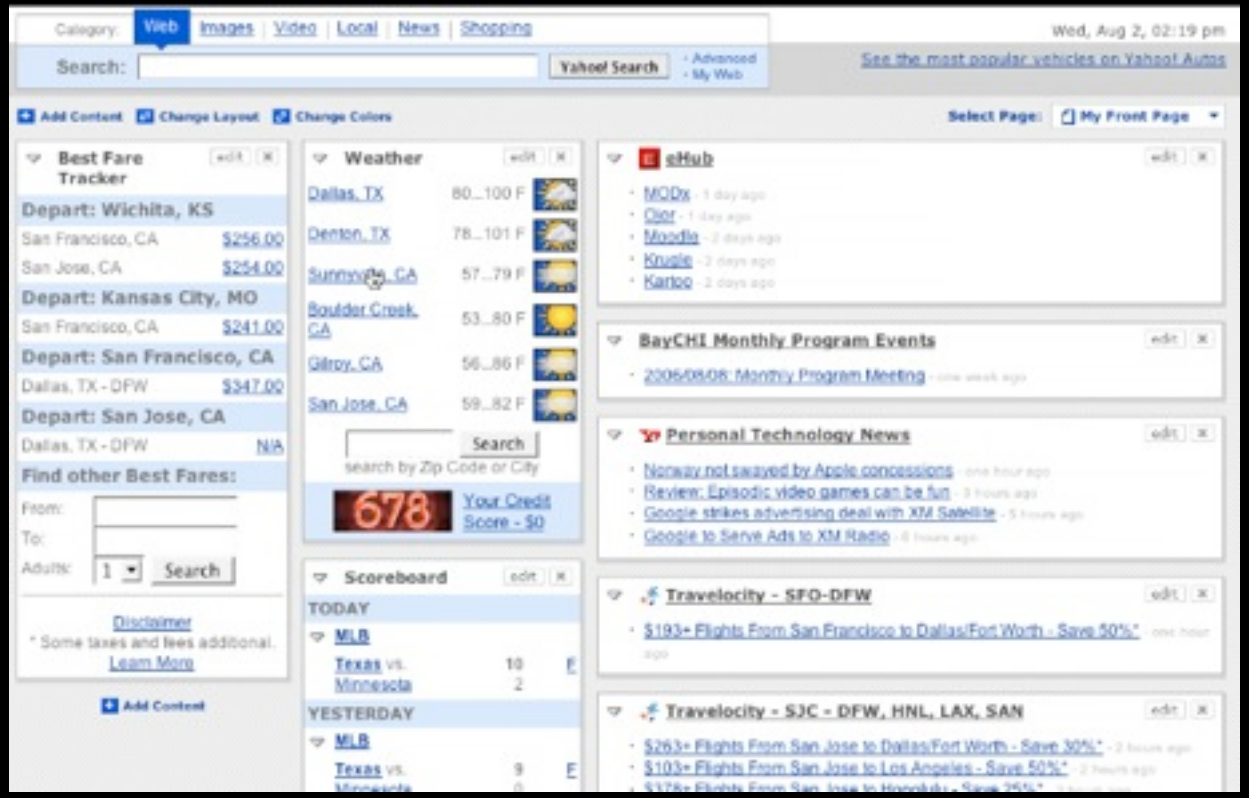

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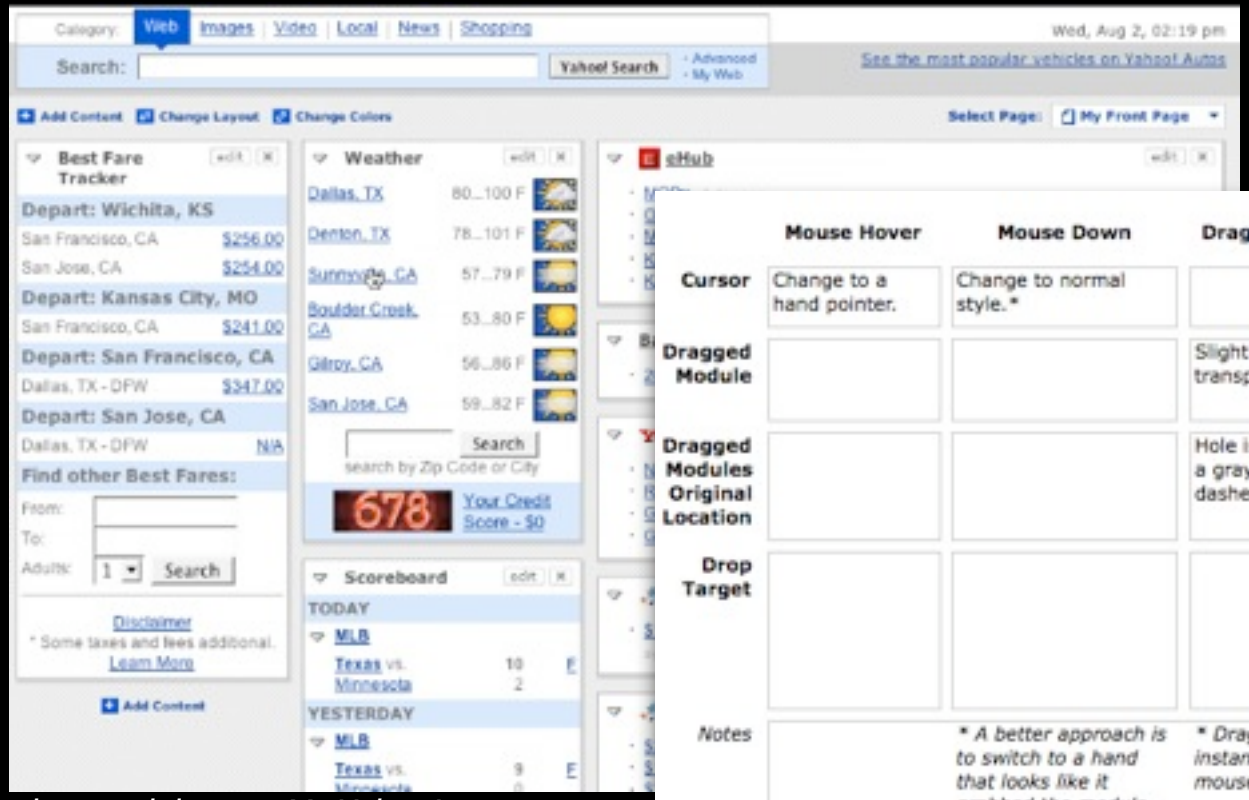


drag and drop on My Yahoo!

interesting moments grid

	Mouse Hover	Mouse Down	Drag Initiated	Drag Hovers over Valid Target*	Drop Accepted
Cursor	Change to a hand pointer.	Change to normal style.*			
Dragged Module			Slightly transparent.		Dragged module removed.
Dragged Modules Original Location			Hole is shown as a gray, thick, dashed outline.		Hole is removed.
Drop Target				Hole (gray, thick, dashed outline) is moved to the new drop spot. Other modules shift to close prior hole.	Module is placed in the new location.
Notes		** A better approach is to switch to a hand that looks like it grabbed the module.*	** Drag initiates instantly on mouse down.*	** Triggers when the mid-point of the dragged object enters a valid drop target.*	

Dynamic Interaction

dynamic

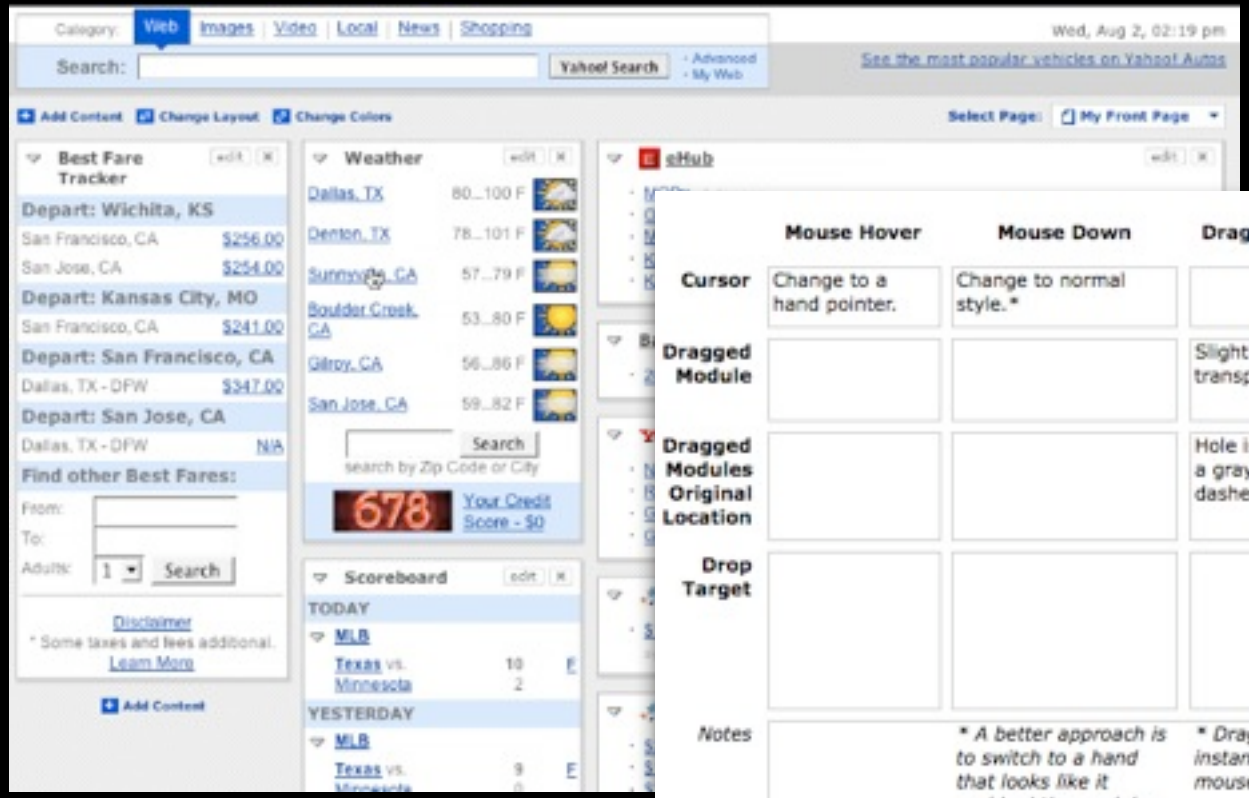
Design for interesting moments up front

Prototype, prototype, prototype

Avoids lots of expensive rework

confusing interaction. netflix

thoughtful approach to blending modes. Yahoo! 360



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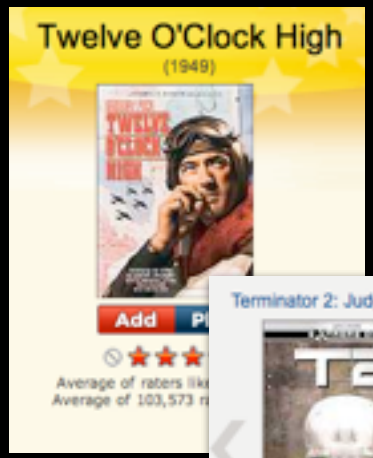
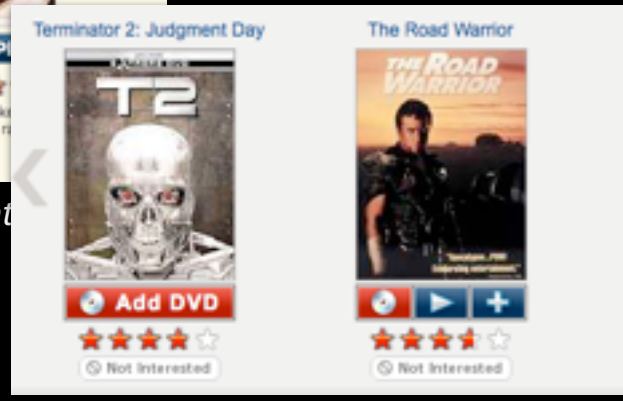
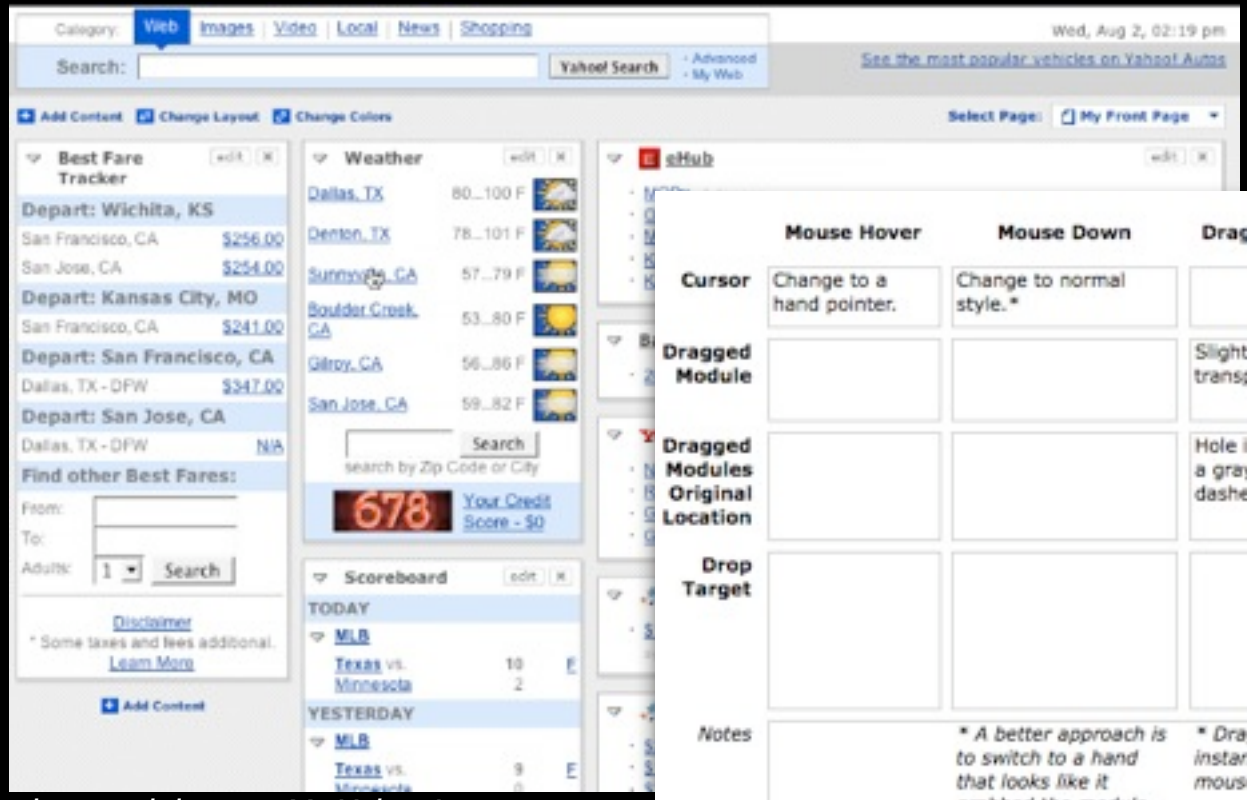


confusing int



improved interaction. netflix



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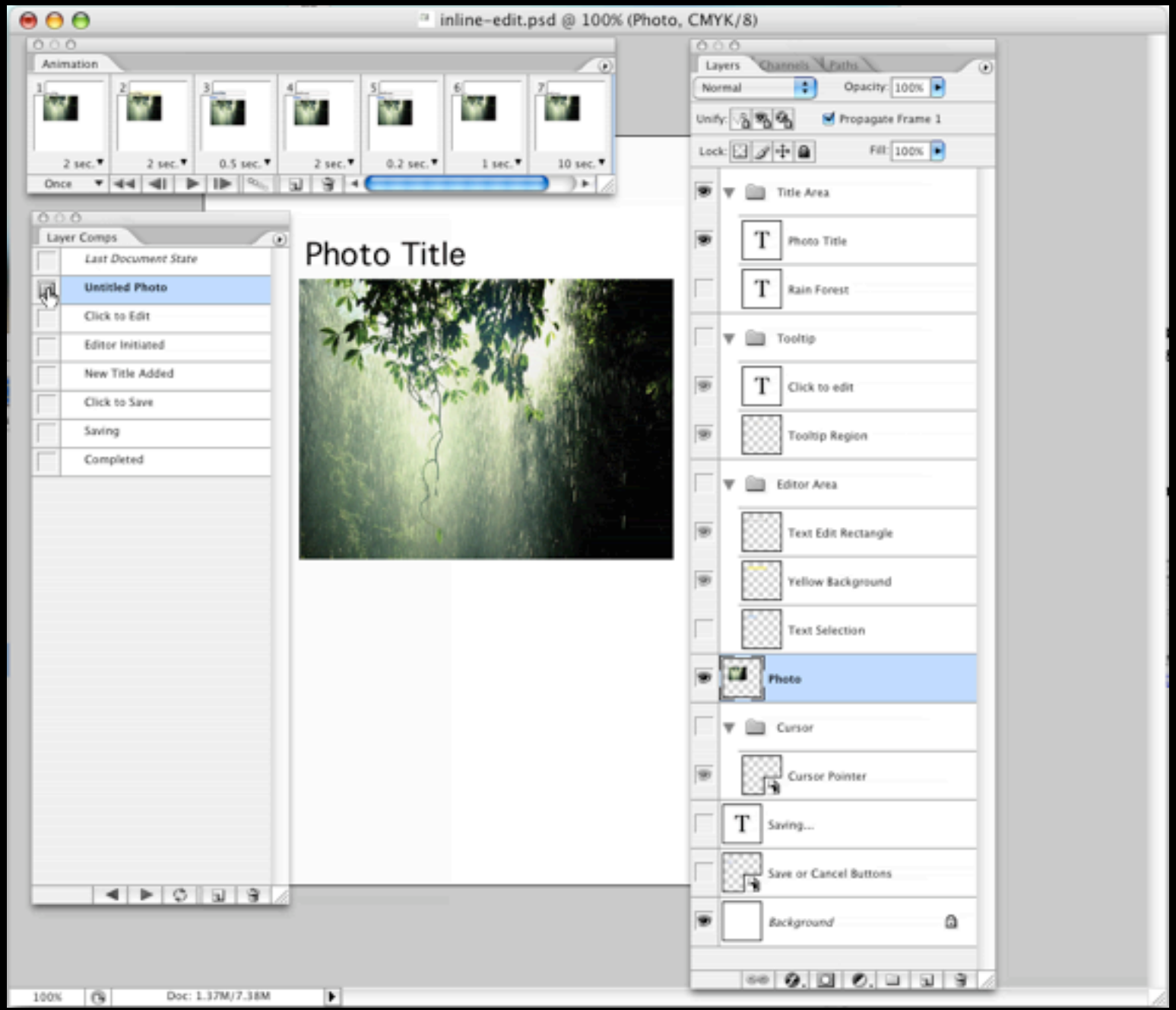
Keyframe with Photoshop

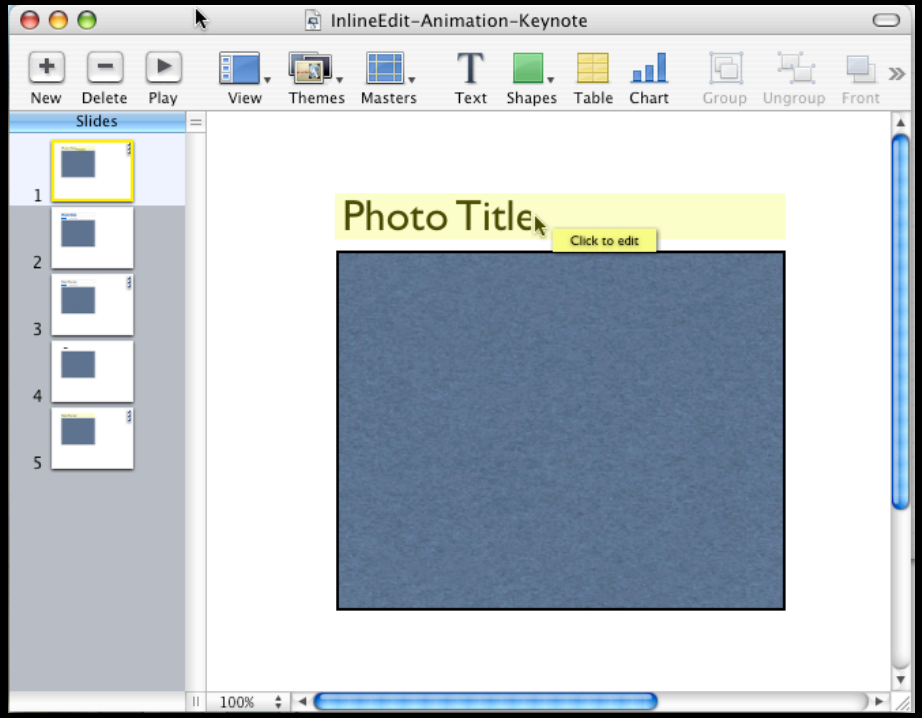
dynamic



Keynote: Keyframe Wireframes

dynamic

Using page transitions and simple animation transitions



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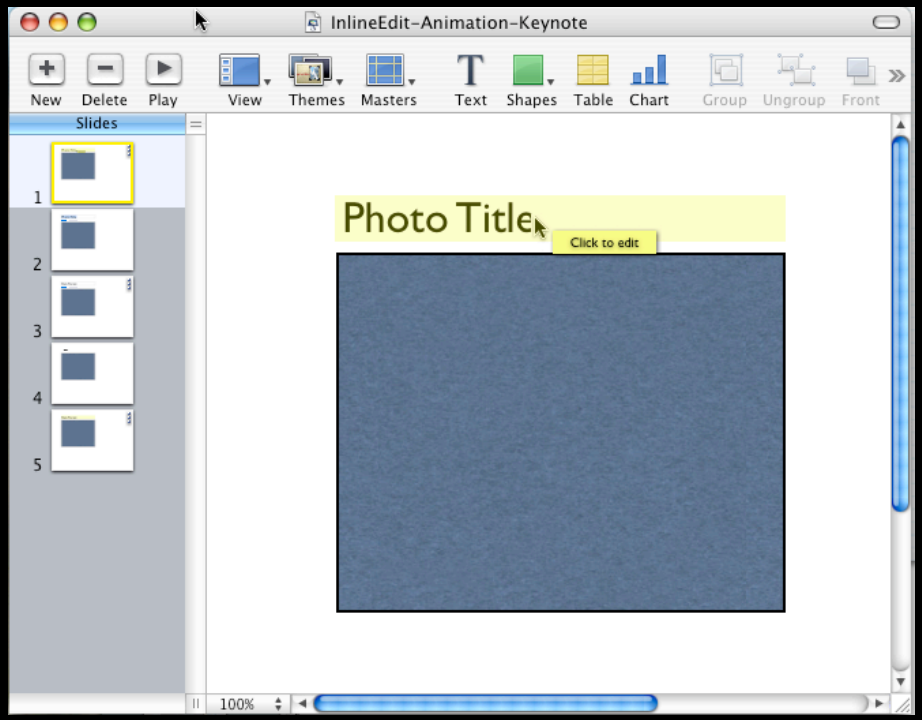
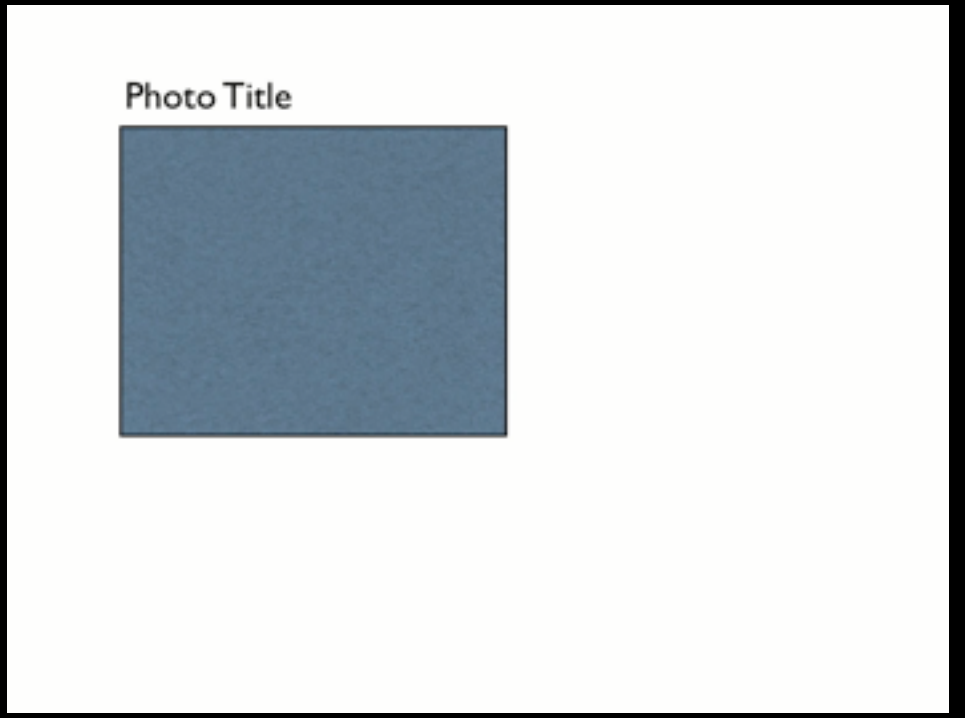
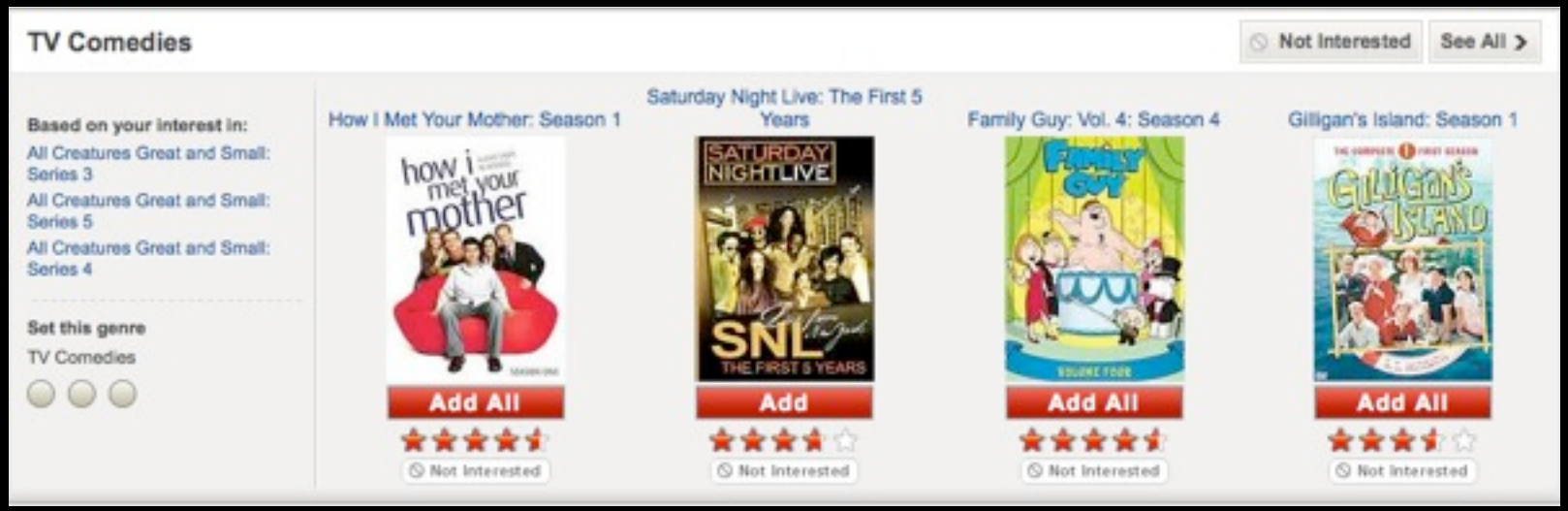
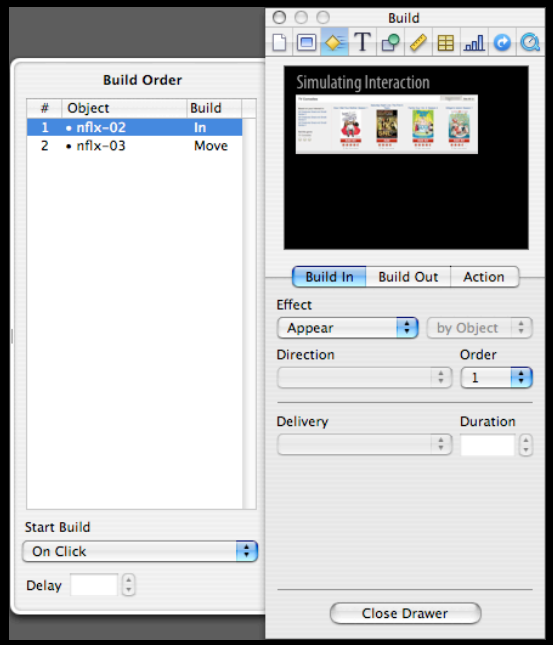


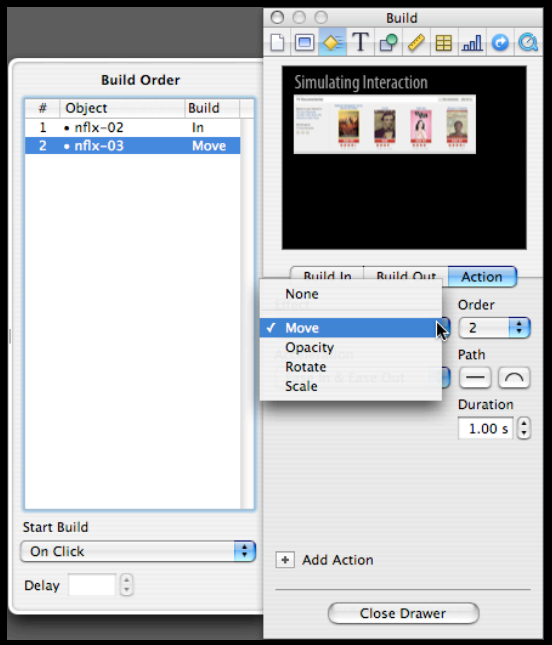


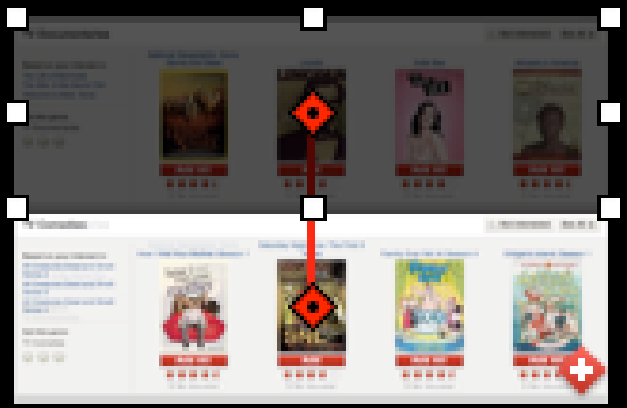
Keynote: Simulating Interaction

dynamic









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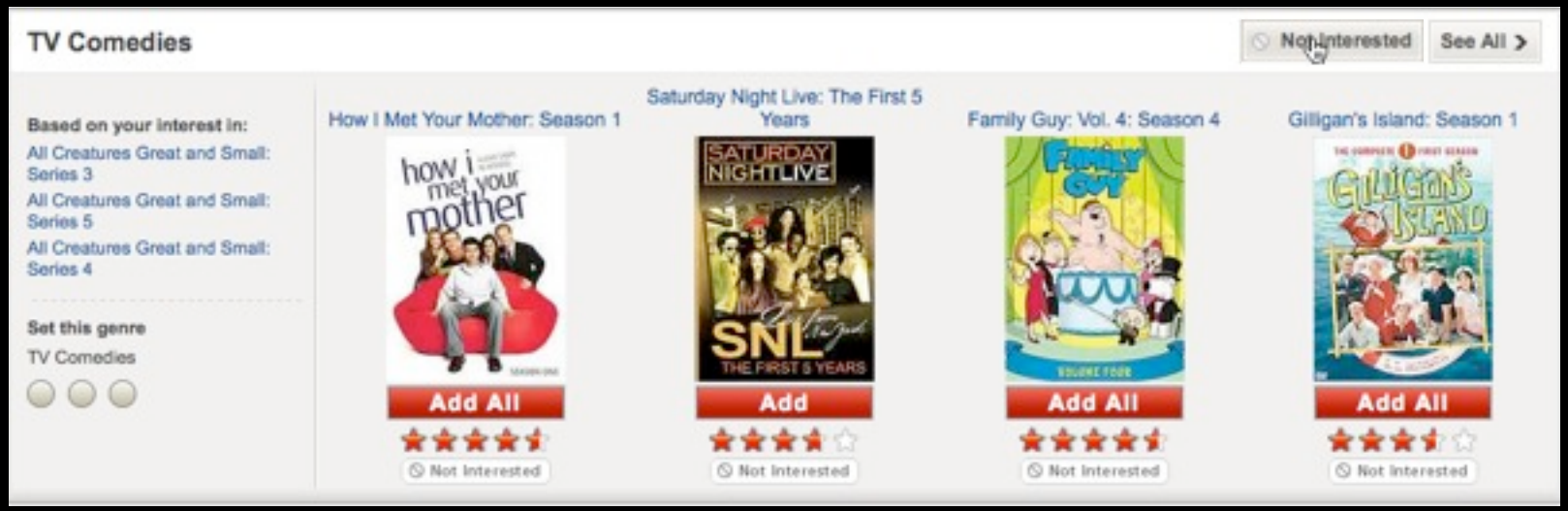
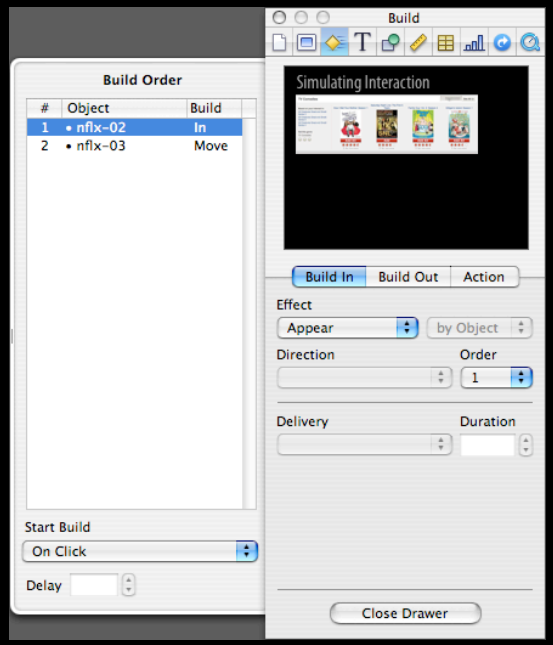
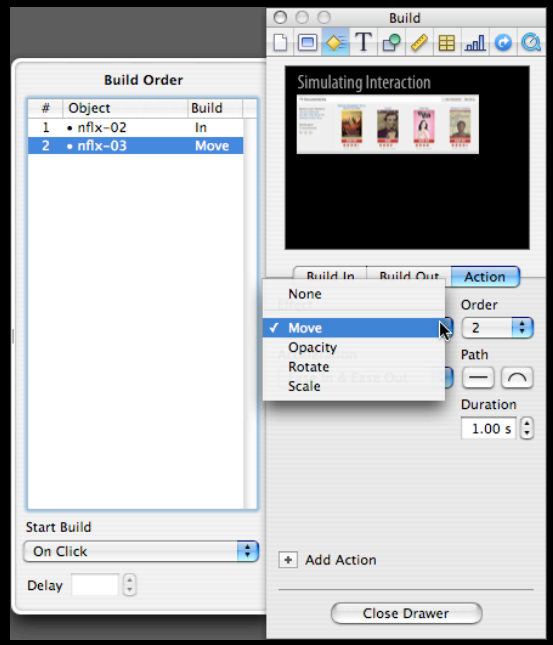
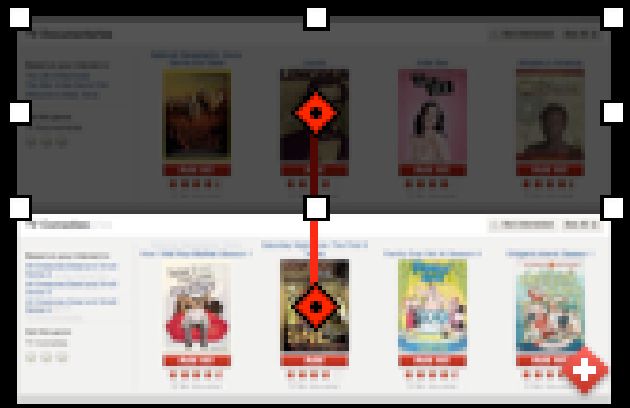
dynamic



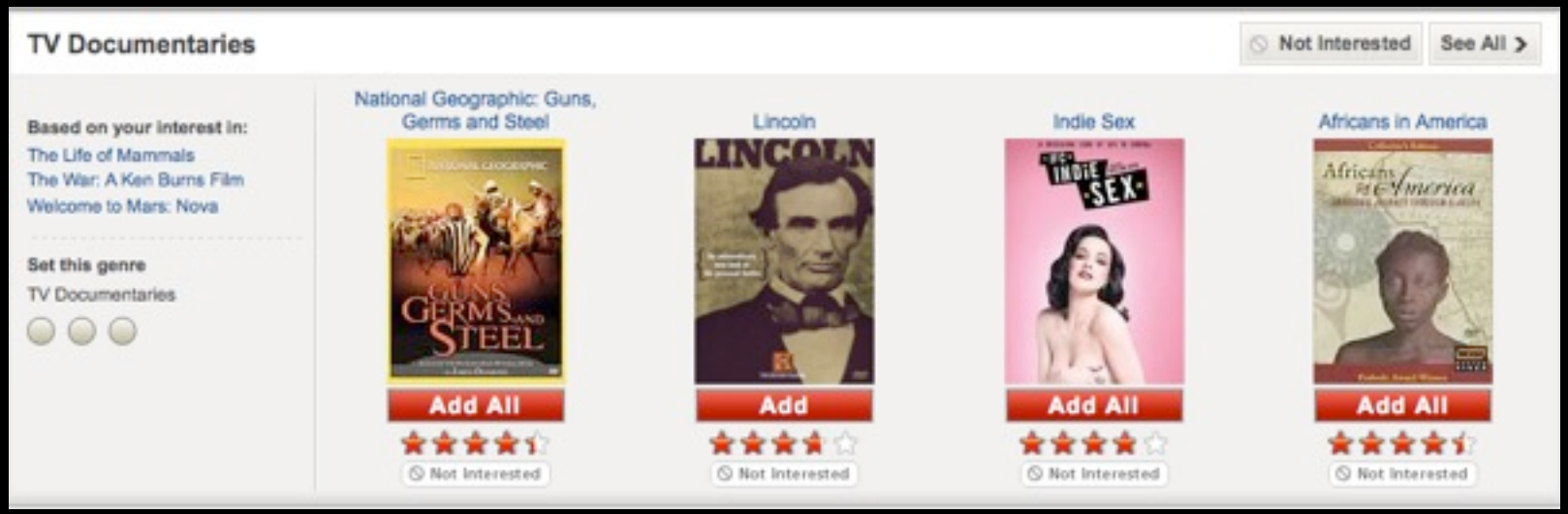




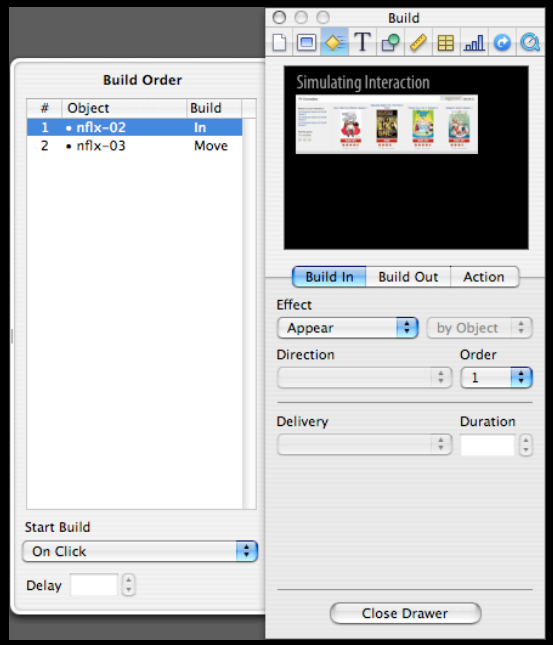


Keynote: Simulating Interaction

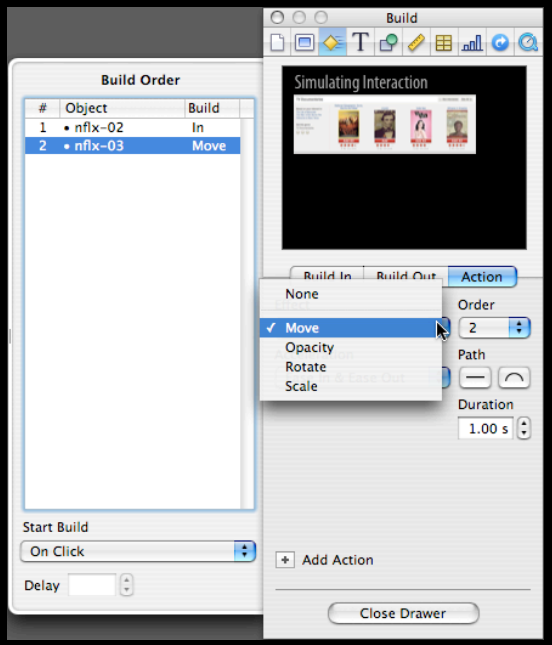
dynamic



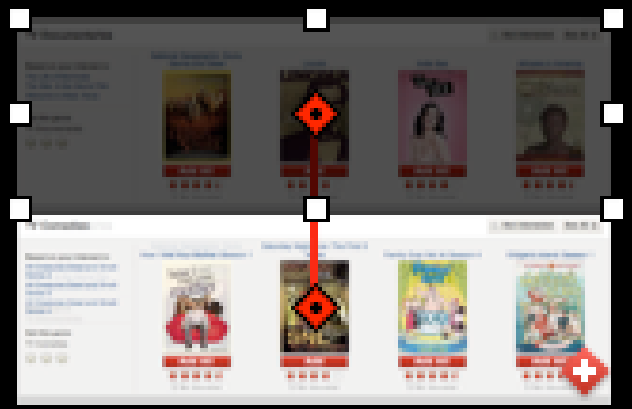
netflix. rate & replace. interactive mockup



step one. button appears



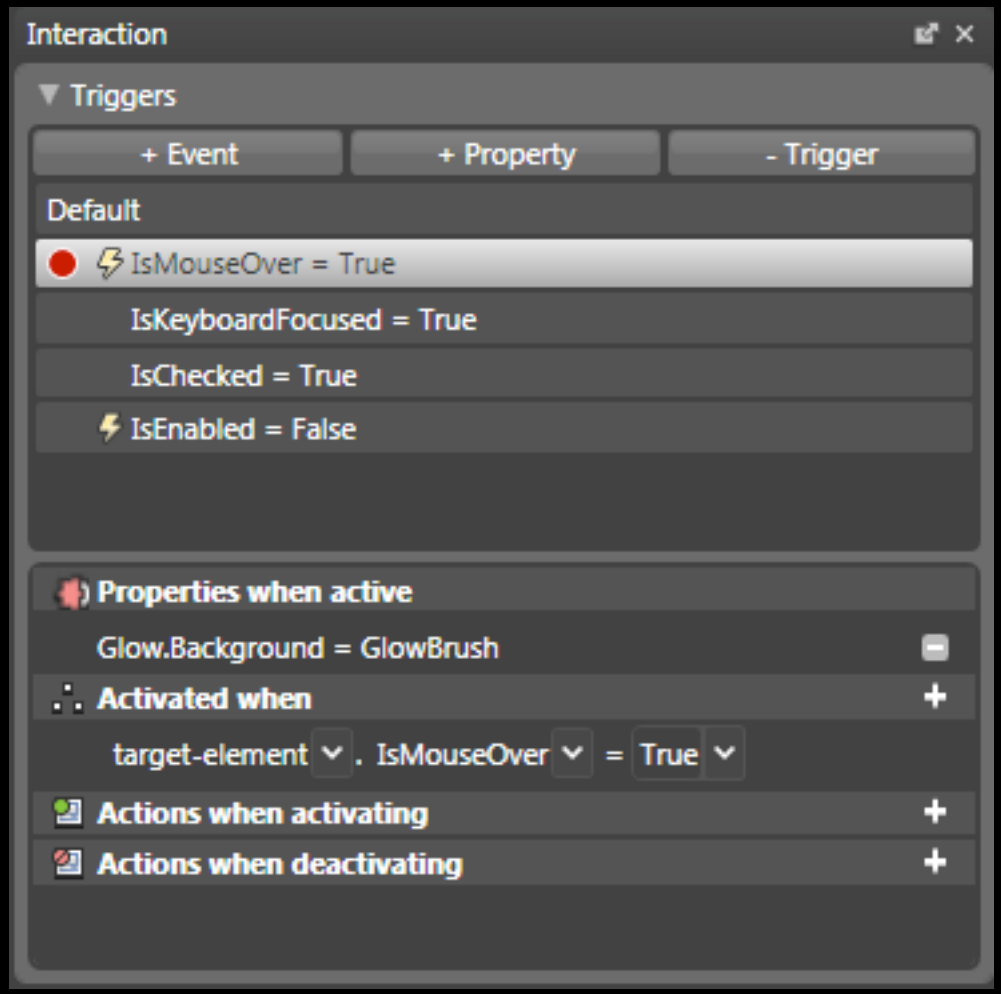
step one. second row moves down



the secret. hidden row behind solid mask

Microsoft Expression Blend

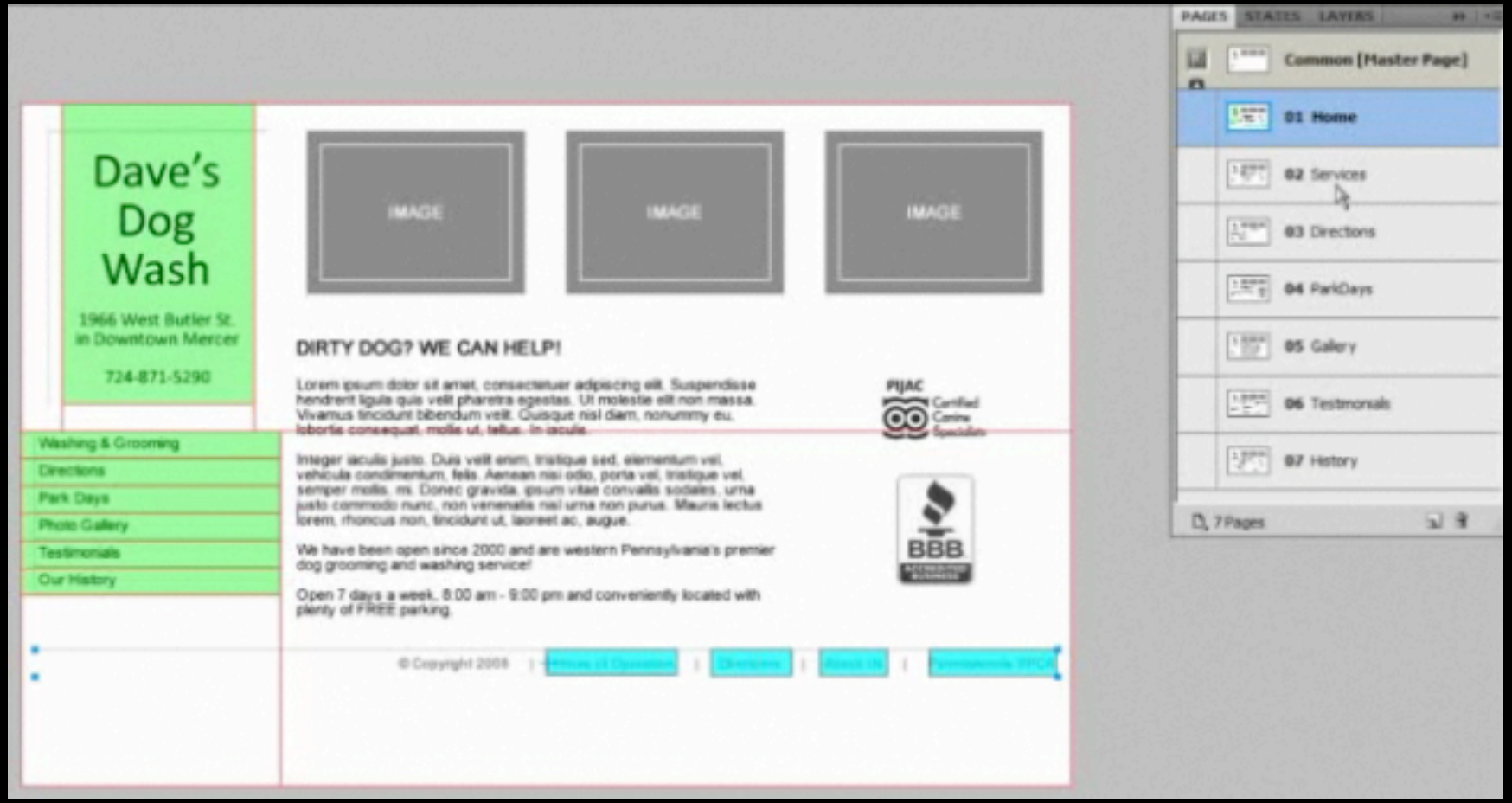
dynamic



Fireworks CS4

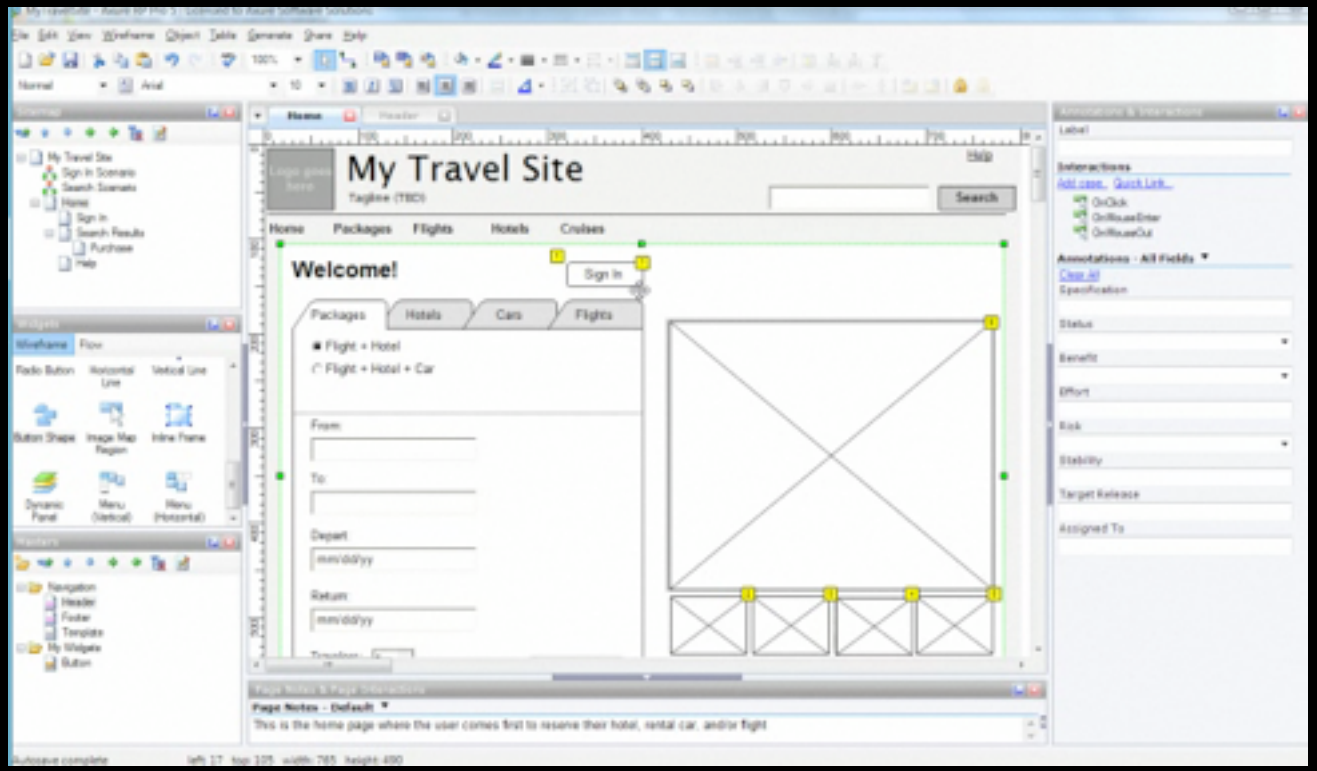
dynamic

- Slices
- Rich Symbols
- CSS Export
- PDF Export
- Smart Align
- Photoshop Compatible Text



Axure

dynamic



Gotchas for dynamic design

dynamic

Not the same as printed page.

Photoshop = static

Use layers to simulate dynamic content

Learn how to **prototype**

Consider extremes and design for scalability.

Realize pixel-perfect layouts and font rendering will not look the same across all browsers/platforms

stop worrying about where the line break is in a particular paragraph of text.

Take the challenge: consider the dynamic nature of the site a worthy design challenge

2. technology is critical

web design without technology is just art.
you must understand the magic that gets it on the site.

challenge of interface engineering

technology

14 IE 6 layout bugs

challenge of interface engineering

technology

14 IE 6 layout bugs

63 rounded corner techniques

challenge of interface engineering

technology

14 IE 6 layout bugs

9 ways to layout columns

63 rounded corner techniques

challenge of interface engineering

technology

14 IE 6 layout bugs

9 ways to layout columns

3 rendering engines

63 rounded corner techniques

challenge of interface engineering

technology

14 IE 6 layout bugs

9 ways to layout columns

3 rendering engines

63 rounded corner techniques

8 major browsers

challenge of interface engineering

technology

14 IE 6 layout bugs

9 ways to layout columns

3 rendering engines

63 rounded corner techniques

8 major browsers

5 ways to layout elements

challenge of interface engineering

technology

14 IE 6 layout bugs

9 ways to layout columns

3 rendering engines

63 rounded corner techniques

8 major browsers

5 ways to layout elements

6+ ways to vertically align

challenge of interface engineering

technology

14 IE 6 layout bugs

9 ways to layout columns

3 rendering engines

63 rounded corner techniques

8 major browsers

34 ways to improve performance

5 ways to layout elements

6+ ways to vertically align

challenge of interface engineering

technology

14 IE 6 layout bugs

9 ways to layout columns

8 areas of focus

3 rendering engines

63 rounded corner techniques

8 major browsers

34 ways to improve performance

5 ways to layout elements

6+ ways to vertically align

challenge of interface engineering

technology

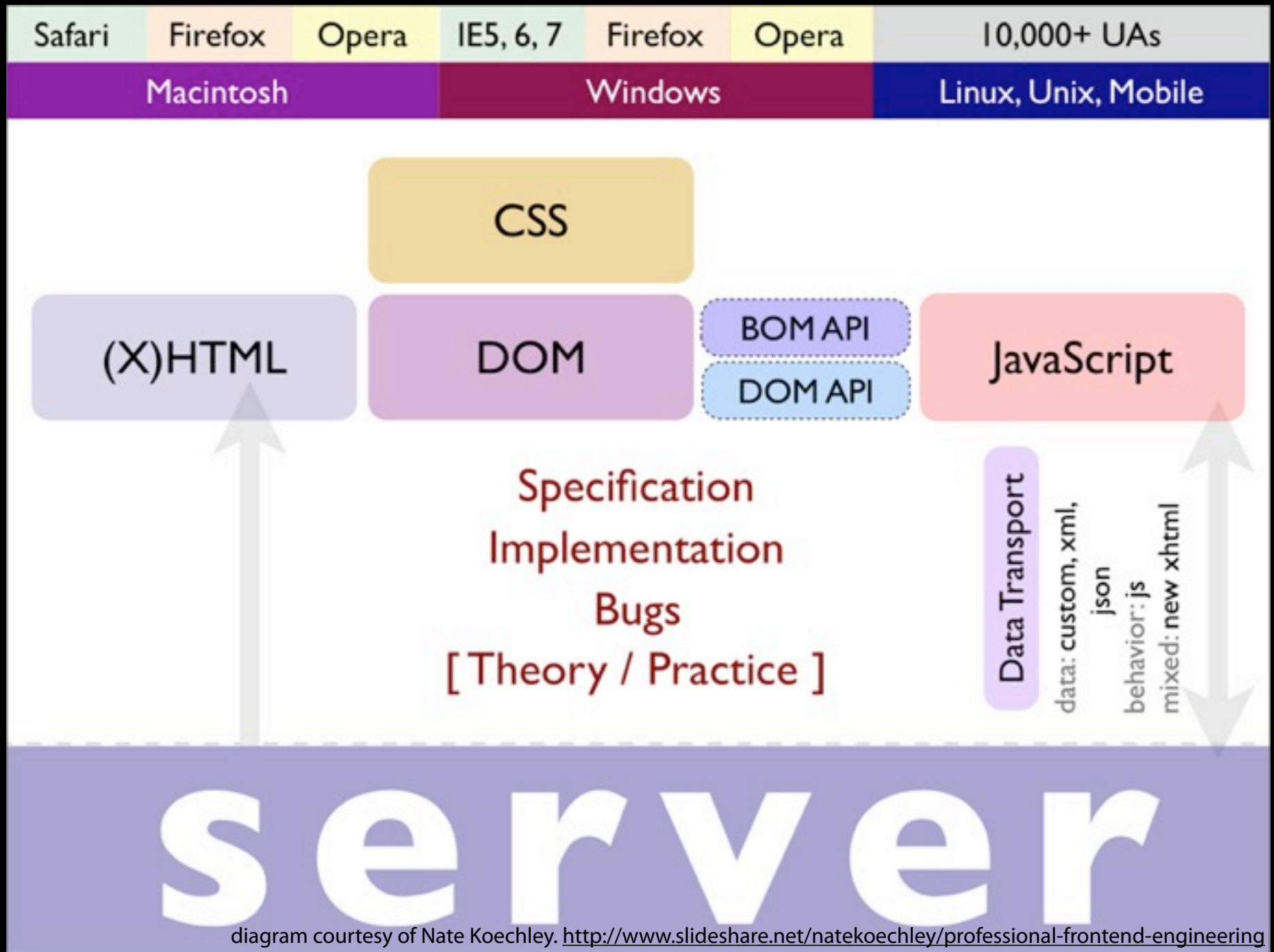


diagram courtesy of Nate Koechley. http://www.slideshare.net/natekoechley/professional-frontend-engineering

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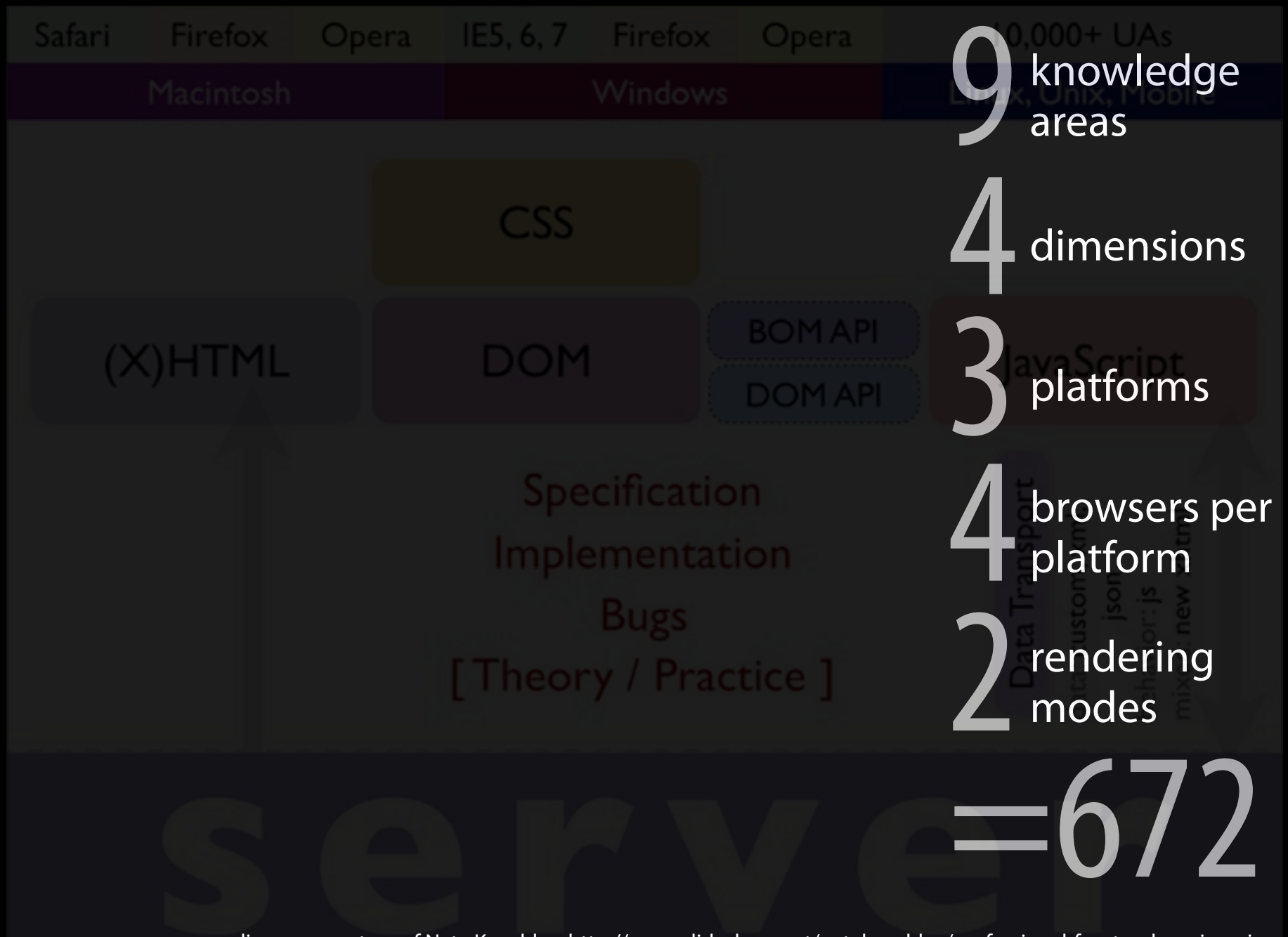
technology



9 knowledge areas

4 dimensions

3 platforms

4 browsers per platform

2 rendering modes

=672

diagram courtesy of Nate Koechley. http://www.slideshare.net/natekoechley/professional-frontend-engineering

competing interests

technology

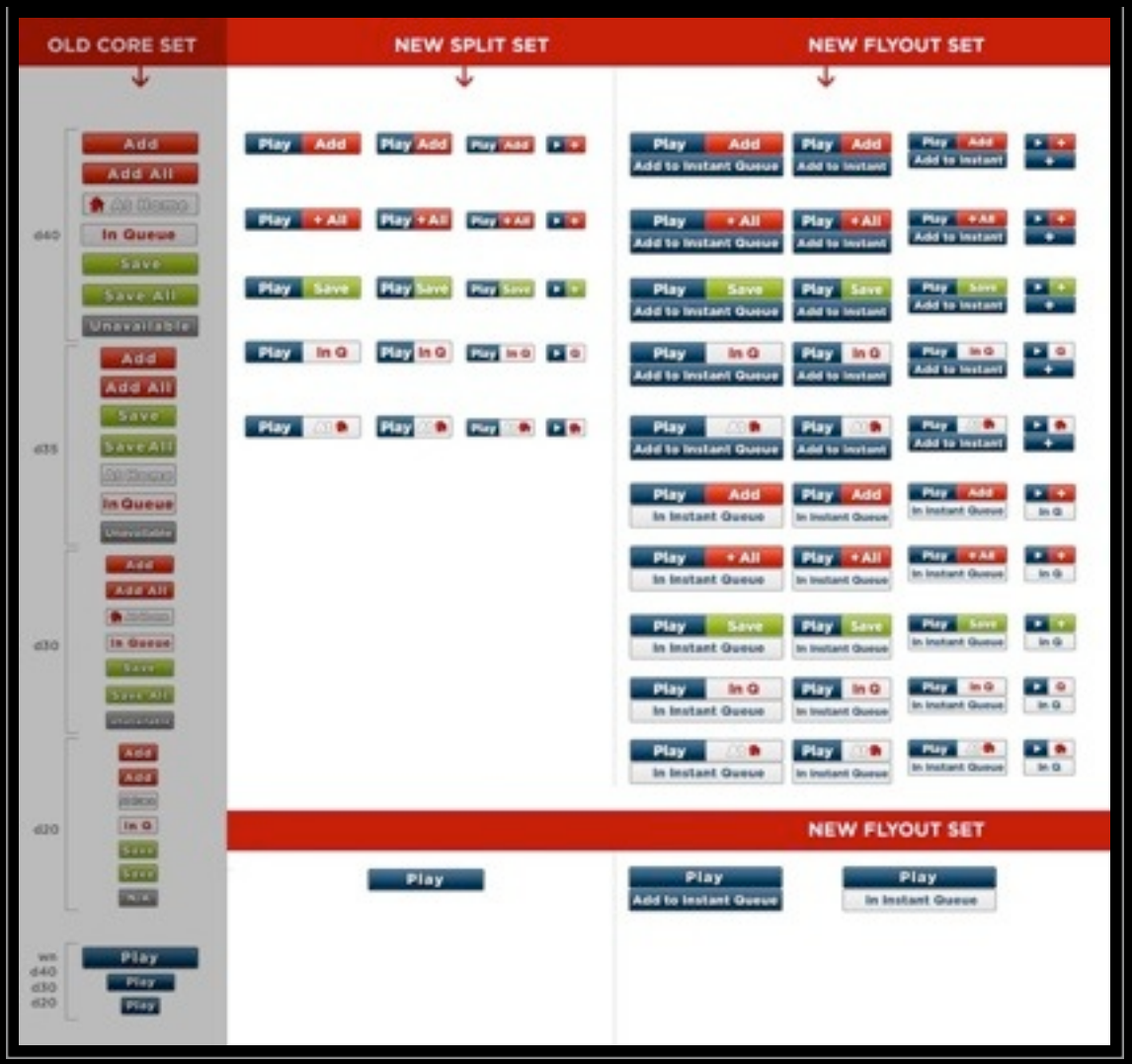
high performance accessibility tools process
internationalization infrastructure

minimalist markup
semantic markup
ordered markup (accessibility)
unobtrusive javascript
minimal or no hacks

Design for markup

Instead of graphics dependent design, opt for markup based design
Let content drive height

button=image



Previous way to render buttons. 84 graphic images. Netflix.

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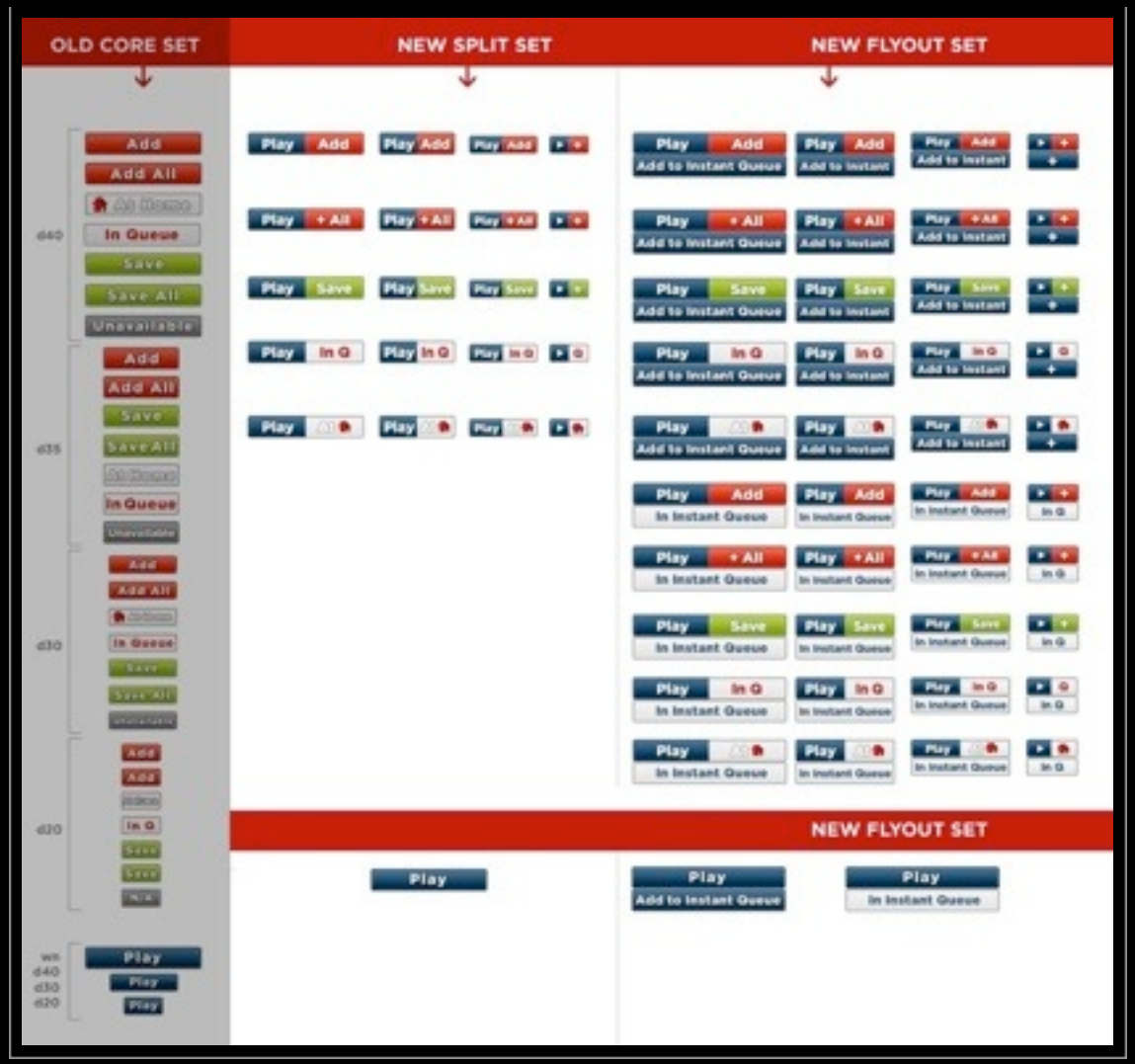

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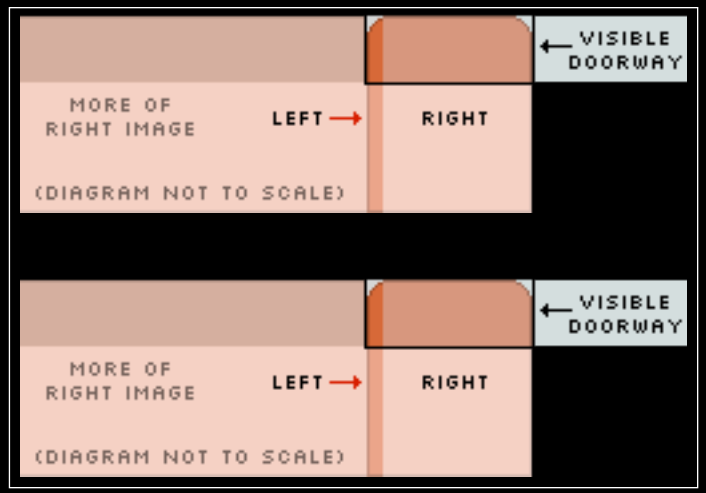
VS

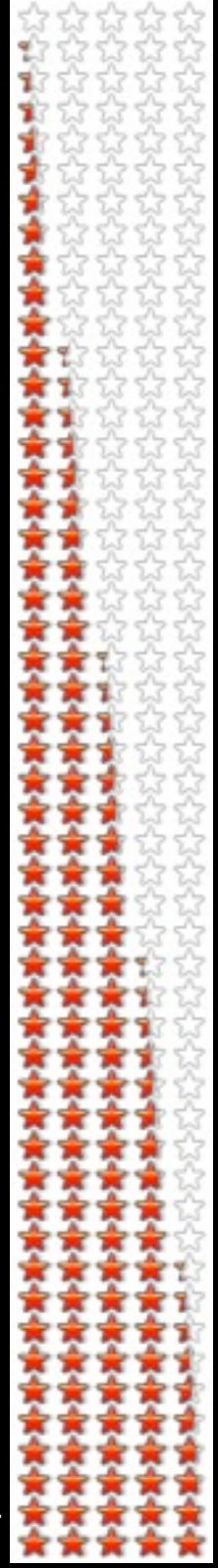
sliding doors technique



http://www.alistapart.com/articles/slidingdoors/

Plan for spriting

Building assets for engineering concerns also simplifies design work

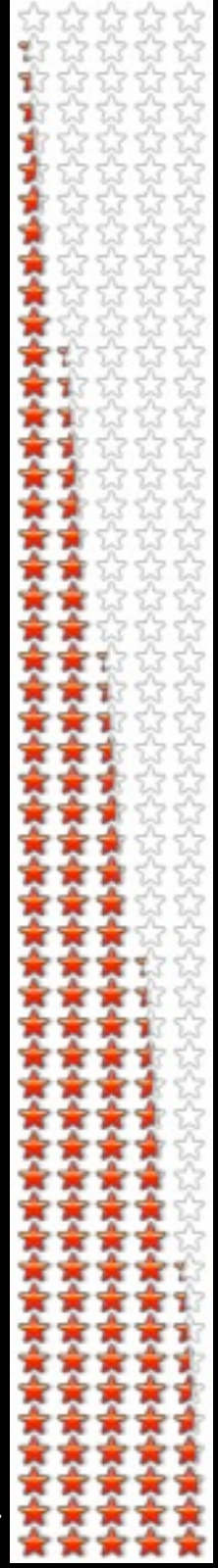


Previous way to render stars. 51 separate images.

Plan for spriting

Building assets for engineering concerns also simplifies design work

one image, clipped in two places, combined for star rating



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technology

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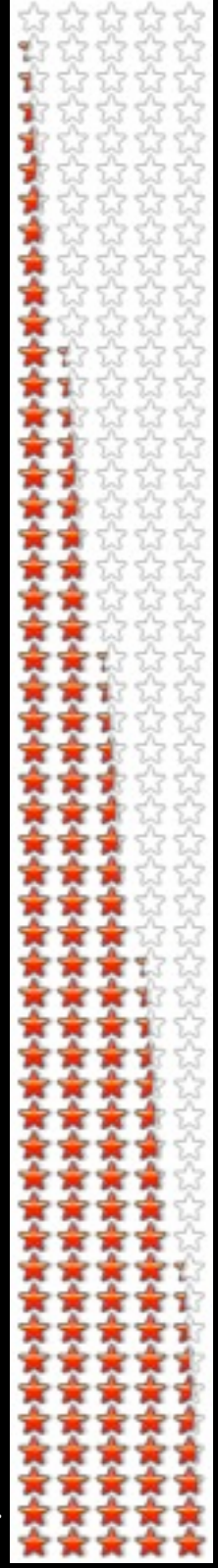

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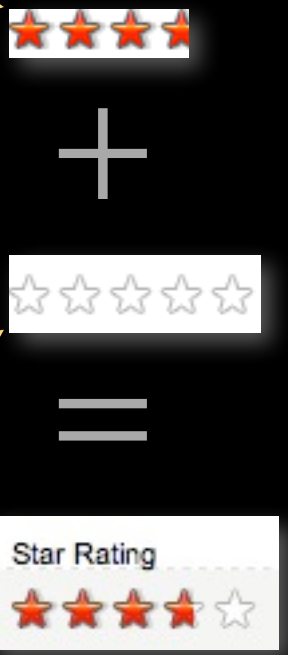

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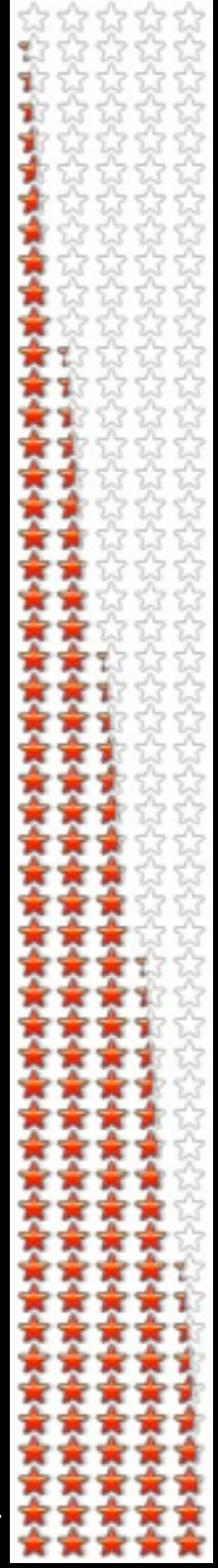


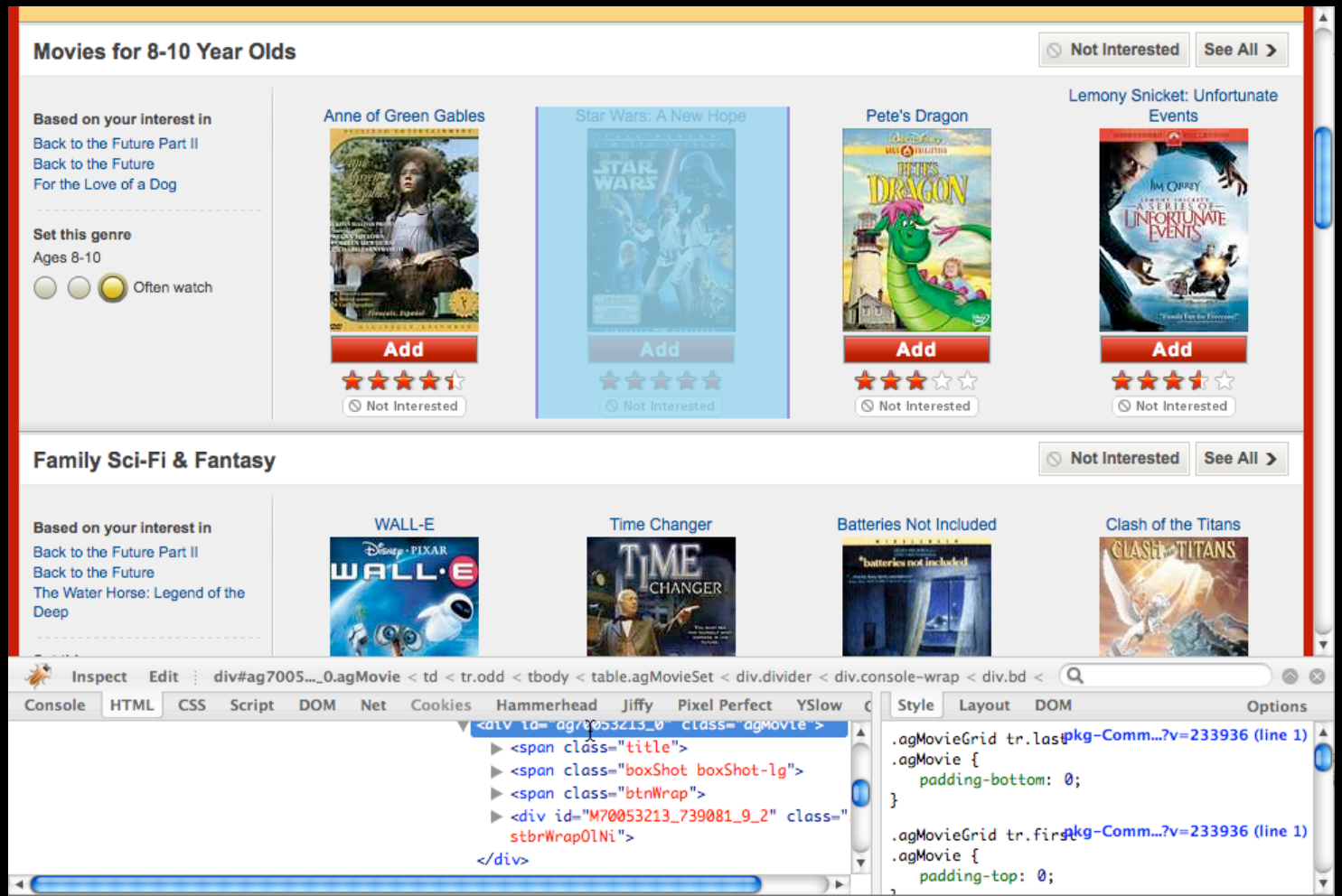
Know how stuff gets used

Often design teams don't know how their stuff ends up on the site

Your HTML/CSS gets cut up into JSP/ASP/PHP?

Your photoshop comps get sliced/diced & html-ized?

One simple analysis tool is Firebug:



Know what is challenging

technology

Vertical alignment

vertical-align does not work on block elements; however display:inline-block is best

Rounded corners + drop shadow

63 ways for rounded corners; 15 ways for drop shadow. Combined very tricky.

Pixel parity across all browsers

Stop worrying about pixel parity for IE6. Design for modern browsers and have graceful fallback for older browsers. See *Transcending CSS*, Molly H.

Equalizing height across columns

Faux approach works the best (background images fake out column height). But not known by all developers.

Pixel perfect widths

Due to IE6 bugs sometimes need a few extra pixels to avoid layout issues with floats (double margin bug); usually fixed with display:inline

Know what is challenging

technology

Specifying minimum or maximum width

Not understood by IE6

Taming IE6

At least 12 bugs concerning floats & layout. These can be sinkholes in time. Transcending CSS.

Hard to layout against the flow

In the current world, remember that this is a document model not a GUI layout engine

Height is harder to control

Content should normally drive the height

Not possible to render your Photoshop fonts

Use browser-available fonts; SIFR and other solutions are buggy; specify alternates.

For the skill level of your engineers

Most problems can be solved. Seasoned engineers will have a bag of tricks.

Tips

Know what your technology can and can't do

At least at the high level. Think of it as your toolkit.

Not all designs cost the same

Everything has a cost. The cost may be in performance, development time, and/or maintenance time. We need to balance what you want against those costs each and every time. (zakas)

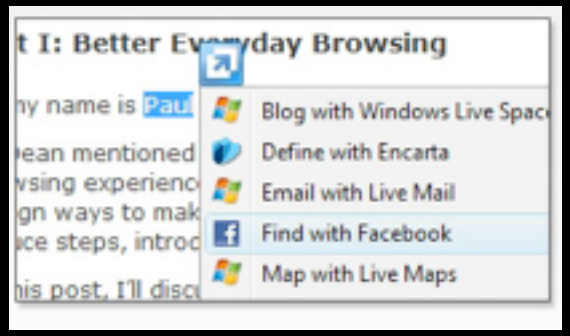
Know what your engineers can and can't do

Not all developers are created equally.

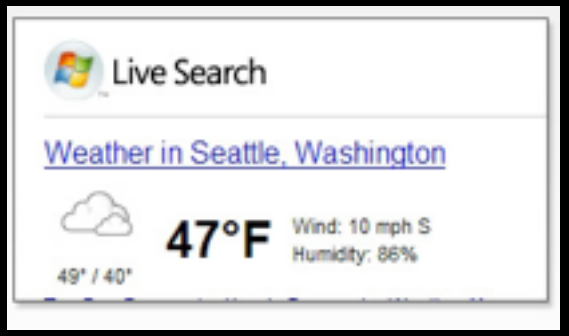
IE8

technology

Extensions



IE8 Accelerators



IE8 Web Slices

IE8 Visual Search

Fully CSS Level 2.1-compliant

New pseudo classes

CSS based table layouts

Margin collapsing

hasLayout issues fixed!

But don't get too excited :-)

ARIA support

http://tinyurl.com/79c552

Safari/Webkit

technology

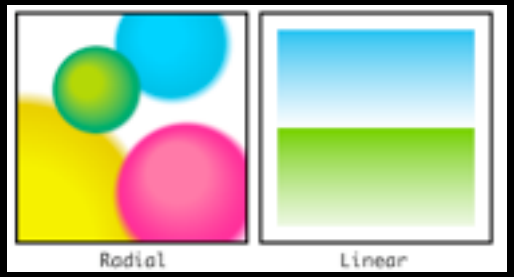
iPhone Support

Drag and Drop

Flick navigation

CSS Transforms

CSS Animation (keyframes)



More CSS Goodness

Masks

Reflections

Canvas Drawing

Gradients

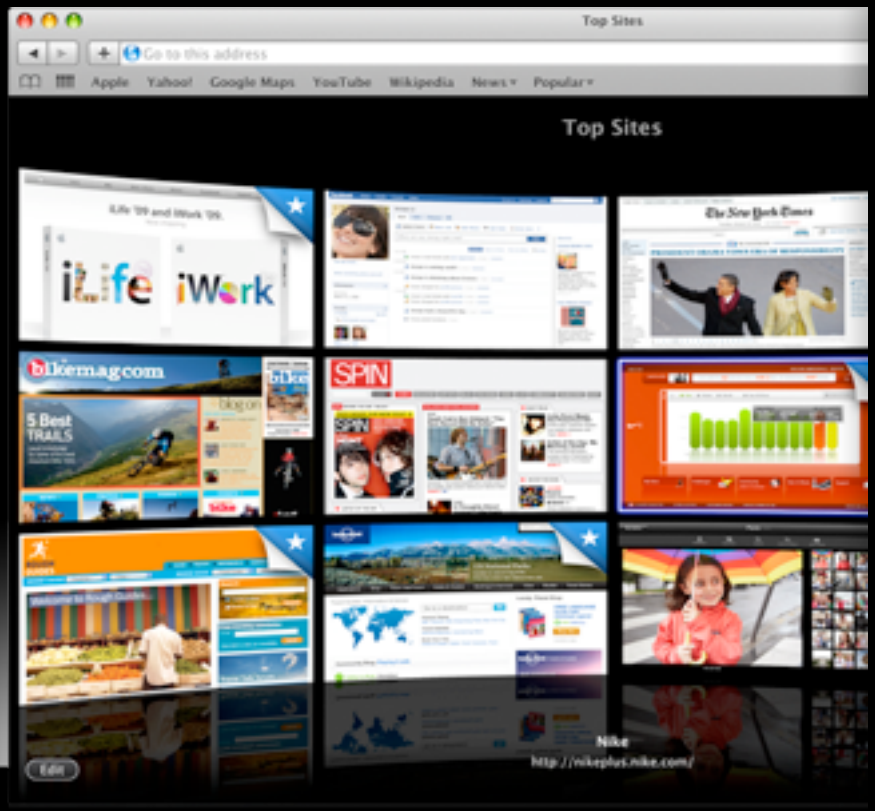
Marquee

Coming (Webkit v.528;Safari 3.2 v.525)

Full pass of Acid3 (Current Safari does not)

SquirrelFish Extreme

Safari 4



technology

ARIA Support

Enhanced Keyboard Navigation

Full-Page Zoom (font scaling)

HTML Canvas

CSS Animation

Downloadable Fonts (CSS 3 Web Fonts)

CSS Canvas

CSS Effects

HTML 5 Audio & Video support

HTML 5 Offline support

SVG 1.1 Support

Web Clip

Turn any web page into a Dashboard widget on your Mac

Resizable Text Fields

Multi-Touch

Chrome

technology

Google Chrome

Mac/Linux versions expected by first half of 2009. Very minimal market share. May grow, but not dominant

Application Shortcuts

Create Application Shortcut (think TV interfaces)

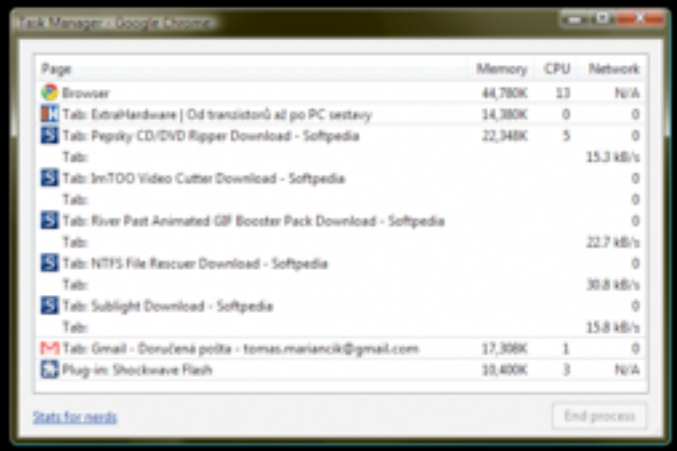
Think Web OS

Each tab independent process

Comes with a Task Manager

Platform for web applications

Couple with Google Gears for offline application



Firefox ~~3.1.x~~ 3.5

technology

Location aware browsing

Open audio and video support

Local data storage

Faster page rendering

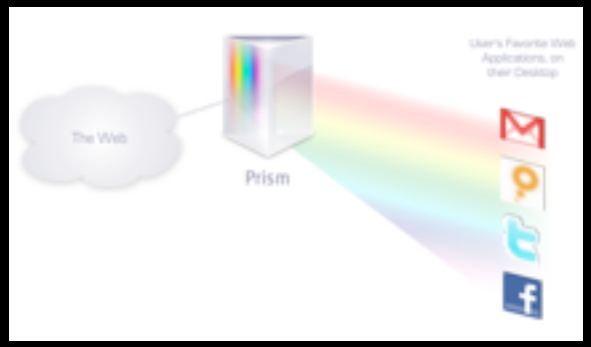
Full CSS 3 Selector support

HTML 5 drag and drop API allows support for dragging and dropping items within and between web sites

Downloadable fonts support

Firefox 4

technology



Prism

Lets users split web applications out of the browser and run them directly on the desktop (application shortcuts)

Goal: Distraction Free Browsing (see also Mac OSX Fluid)

Weave

Browser metadata is pushed into the cloud
Automatic backup and restore
Personalization made portable
Collaborative bookmarking

Geocode

Automatically tracks your location

Through GPS, Wi-Fi or manual entry type options and then serves you with any information you want to know

Yahoo! Browser Plus

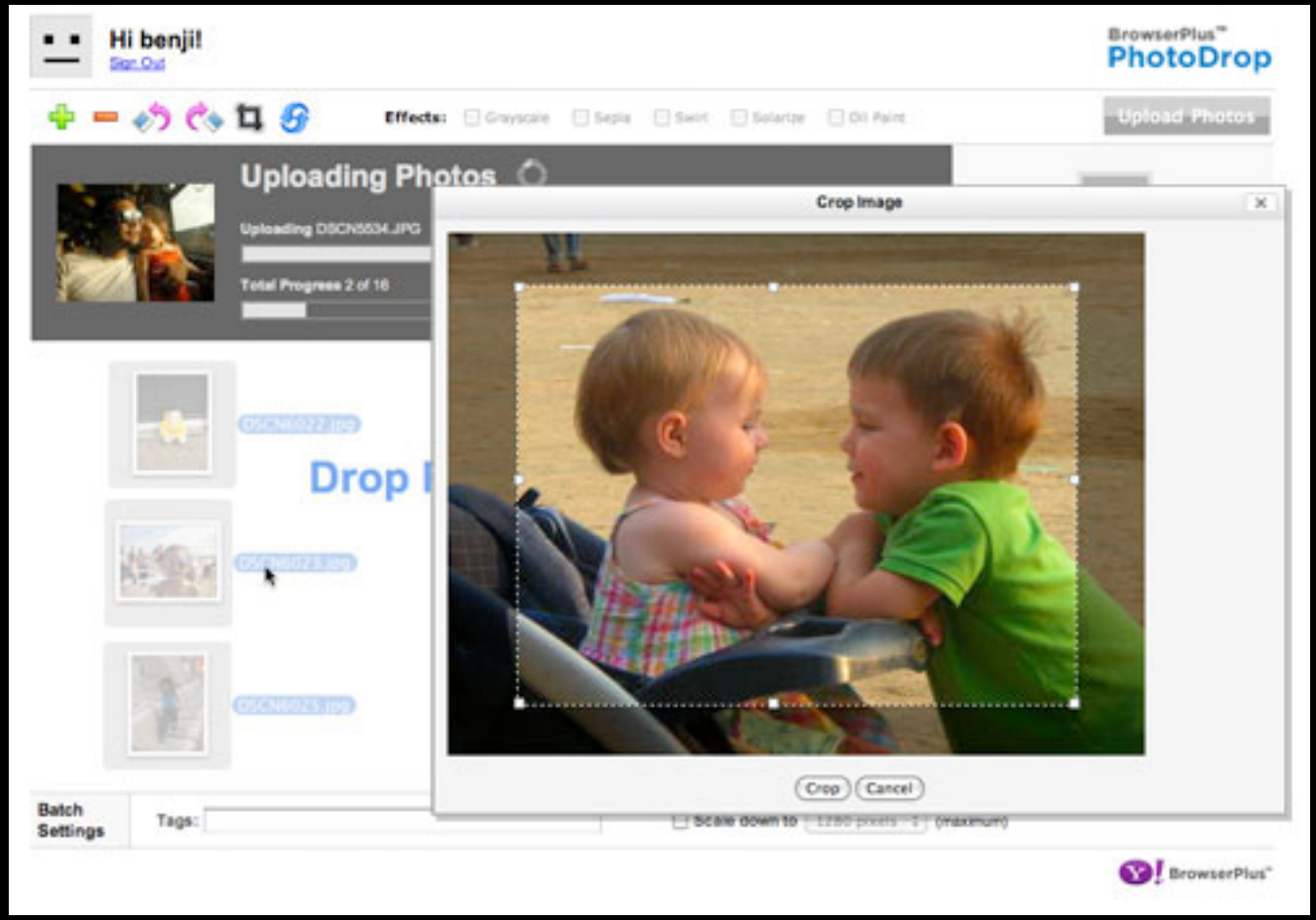
technology

Allows developers to create rich web applications with desktop capabilities

Photo Uploader (Native Drag & Drop)

Access Motion Sensor

Plugin Architecture



Firefox Mobile (Fennec)

technology

Humanized prototyping ideas

Aza Raskin & Scott Robbin

Very intelligent use of real estate

PageSlide pattern

Zoomable User Interface (ZUI)

Design Principles

Touch

Large targets are good

Visual Momentum and Physics are compelling

Typing is difficult

Content is king

http://vimeo.com/1152218

http://www.azarask.in/blog/post/firefox-mobile-concept-video/

http://www.techcrunch.com/2009/03/18/fennec-firefox-mobile-shows-off-its-beta/

Google Android

technology

Apps without borders

Apps can access core mobile device functionality via API

Apps can easily embed the web

Easily embed HTML, Javascript & stylesheets

Apps are created equal

Any app can be extended or replaced

Apps can run in parallel

Multi-tasking environment

HTML 5

technology

Features

The Canvas tag for immediate mode 2D drawing

Timed media playback

Offline storage

Editing

Drag-and-drop

Messaging/networking

Back button and history management for Ajax/DHTML applications

New markup

Eliminated markup

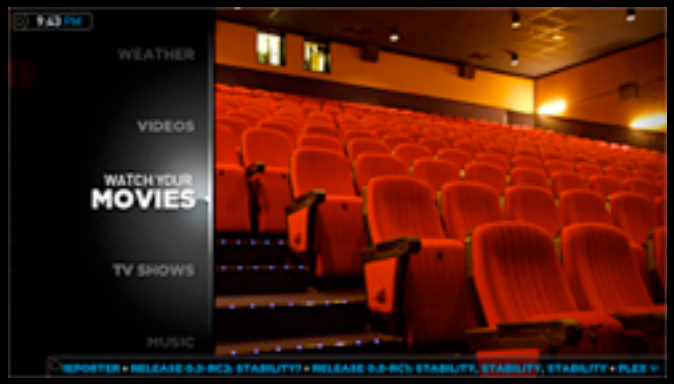
Compatibility

See http://wiki.whatwg.org/wiki/Implementations_in_Web_browsers

When Can I Use...?

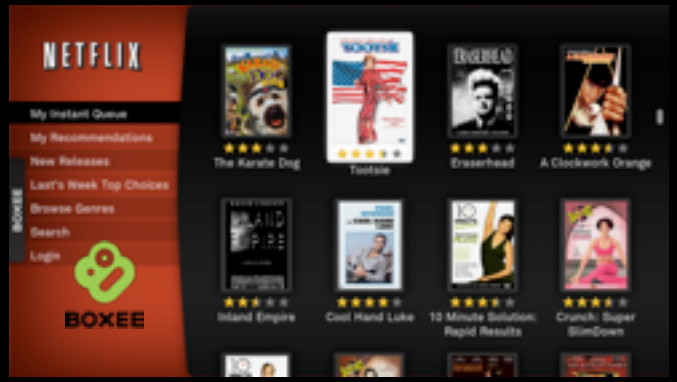
http://a.deveria.com/caniuse/

TV



Plex

TV Interface (Open Source)



Boxee

TV Interface

Yahoo! TV Widgets

Compact Internet applications that deliver the Web to the TV

technology

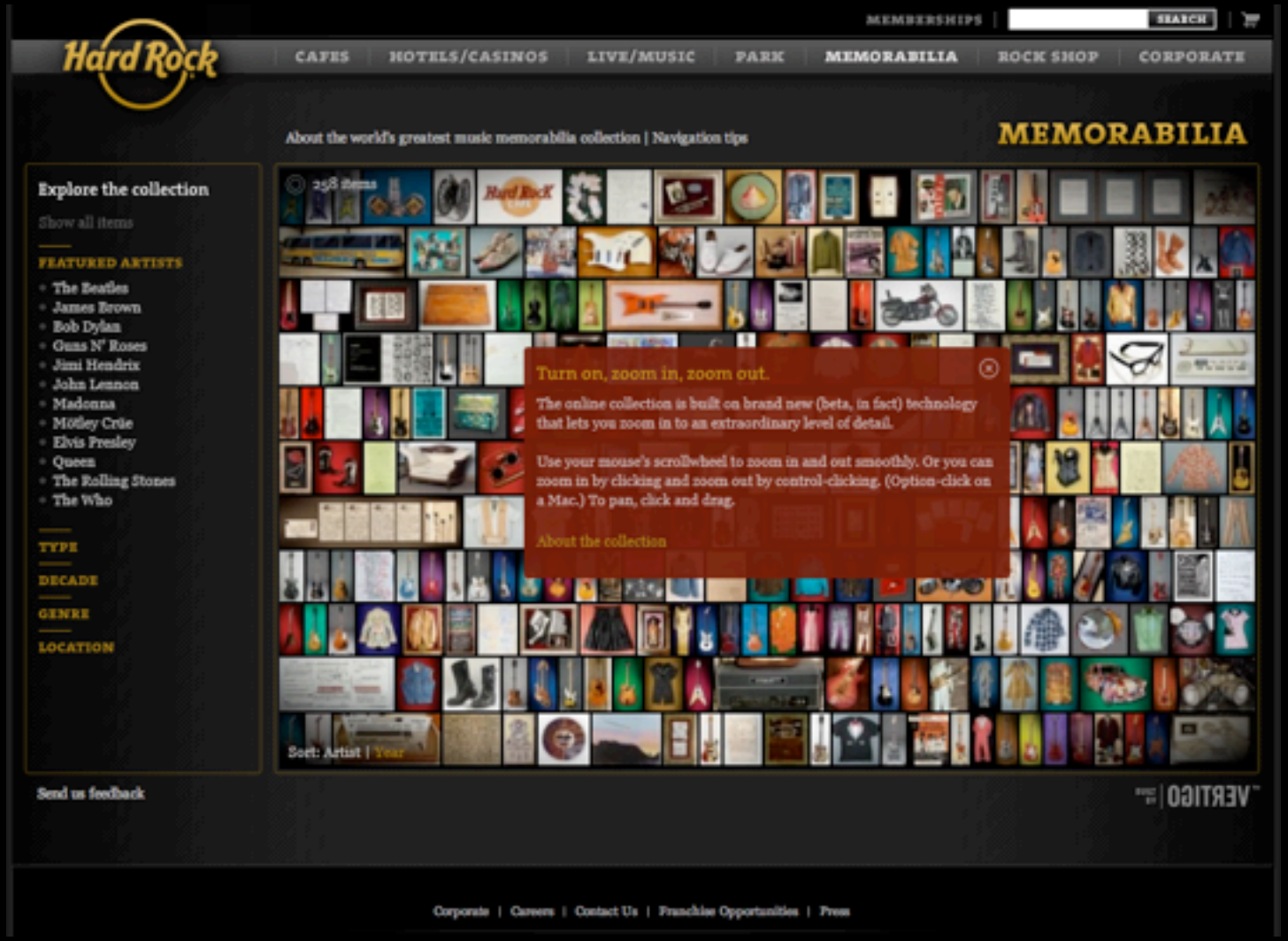
Silverlight

technology

Rich set of controls

Rich media support

Zoomable User Interface (ZUI)



Other Technologies

technology

Flash 10

3D effects, custom filters & effects, advanced text layout, enhanced drawing, sound

Flex 3

Rich, expressive UI with large set of controls

Simple development environment

Nice for prototyping

Adobe Air

Applications run without a web browser (though built with web technologies)

Merges DHTML & Flash world

There are still times to say “No”

technology

Designer fonts (Gotham!)

But this might change with typekit/font-face!

Text in graphics

Specific heights

Hire developers that normally say “yes” and “get it”

3. components & grids are key

developers think in terms of reuse; designers often in terms of new work.

you must also design for reuse.

Design for reuse

components

The temptation for most designers is variety for variety sake

Often designers get bored with their design before it gets fully realized on the site

They bristle at the thought of “reusable design”

Embrace Components

components

Design for each component & reuse throughout the site

Inventory site & create a vocabulary for the common components

Do a holistic design for the components as a suite

Easy to map to engineering

Components become tags, widgets, plugins, etc.

Results in cleaner CSS.

Instead of CSS appearing hodge-podge across the site, it gets reused for components

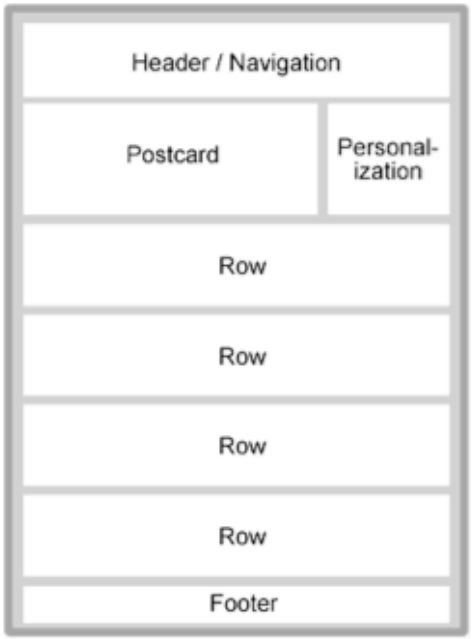
See *Object-Oriented CSS* presentation on Slideshare by Nicole Sullivan

Netflix Site Elements/Components

components

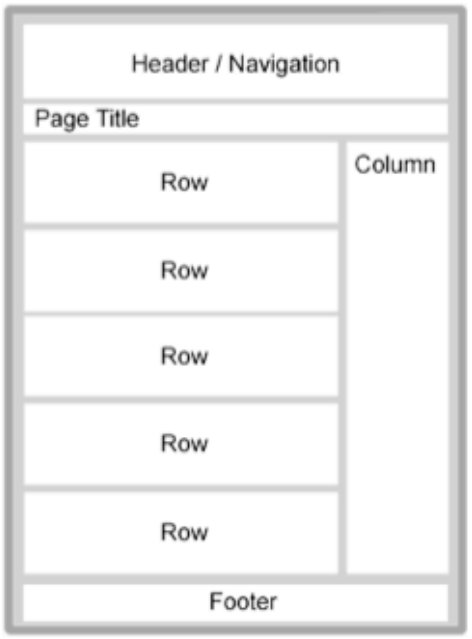
Page Templates: Row

1 Row



Examples

- DVD Homepage
- Watch Instantly Homepage
- DVD Sale Homepage
- Movies You· '· ll Love Homepage



Examples

- Genre

Examples

- New Releases (DVD)
- Award Winners
- Critics Picks
- New Arrivals (WI)
- New Arrivals (DVD Sale)

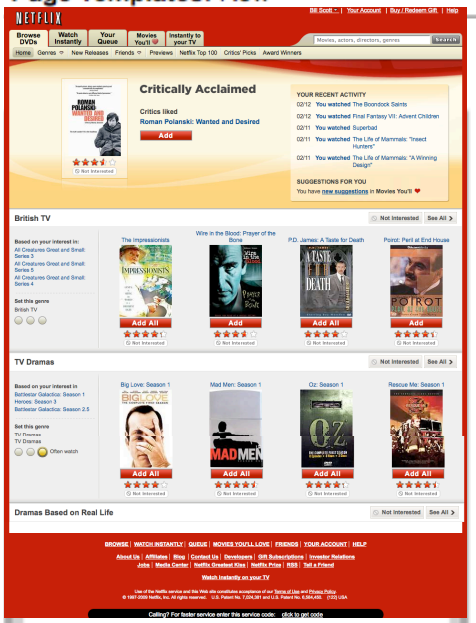
Page Elements

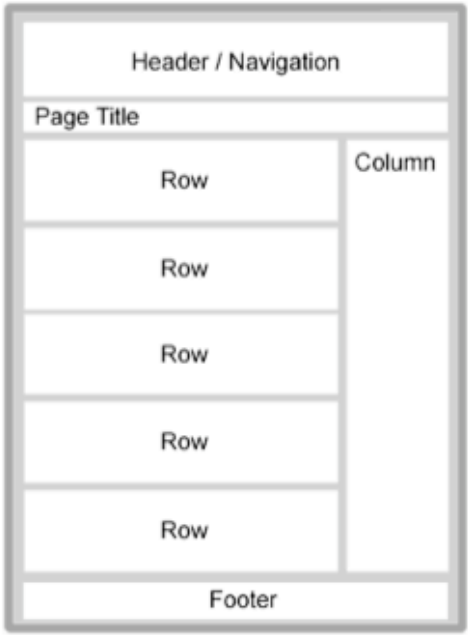
1. Header	13. List View Table
2. Footer	14. List Item
3. Page Title	15. Movie lockup
4. Page Column	16. BOB
5. Page Controls	17. Row Card
6. Postcard	18. Starbar
7. Recent Activity	19. Preview Play
8. Content Row	20. Enter text field
9. Slider Row	21. UMA (Unified
10. Postcard Row	messaging are
11. Search Results Row	22. Drop down
12. Gallery View Table	

Netflix Site Elements/Components

components

Page Templates: Row





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16. BOB
17. Row Card
18. Starbar
19. Preview Play
20. Enter text field
21. UMA (Unified messaging are
22. Drop down

Embrace Grids

components

It's the right way to design anyway

See *The Principles of Beautiful Web Design by Jason Beaird*

Grids map to templates

There are at least 12 CSS frameworks each supporting the concept of templates/grids
http://speckyboy.com/2008/03/28/top-12-css-frameworks-and-how-to-understand-them/

Establish templates and standards that are engineering approved

Include engineering early & often to get these reusable assets "blessed". They can make it happen. (@ Netflix - Simplified Visual Framework)

Reference grids & components in your designs

Can be quickly referenced in order to facilitate faster design cycles.

Easy to match photoshop, illustrator templates with a CSS grid system

Blueprint CSS Framework

components

A simple sample page

This sample page demonstrates a tiny fraction of what you get with Blueprint.

Here's a box
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This box is aligned with the sidebar
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This is a nested column
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A *Simple* Sidebar

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Incremental leading

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You may pick and choose amongst these and many more features, so be bold.

Blueprint CSS Framework

components

A simple sample page

This sample page demonstrates a tiny fraction of what you get with Blueprint.

Here's a box
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A *Simple* Sidebar

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You may pick and choose amongst these and many more features, so be bold.

Blueprint CSS Framework

components

A simple sample page

This sample page demonstrates a tiny fraction of what you get with Blueprint.

Here's a box
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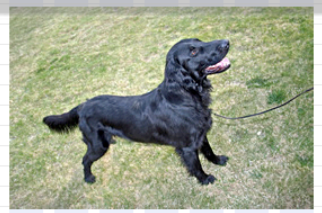

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Blueprint CSS Framework

components

A simple sample page

This sample page demonstrates a tiny fraction of what you get with Blueprint.

Here's a box
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This box is aligned with the sidebar
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Inspect Edit | div.span-7 < div.container < body < html

Console HTML CSS Script DOM Net Cookies Hammerhead Jiffy Pixel Perfect YSlow Op

```
<hr/>
<h2 class="alt">This sample page demonstrates a tiny fraction of what you get with Blueprint.</h2>
<hr/>
<div class="span-7 colborder">
  <h6>Here's a box</h6>
  <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip.</p>
</div>
<div class="span-8 colborder">
```

Style Layout DOM Options

```
div.colborder {                          screen.css (line 176)
  border-right: 1px solid #EEEEEE;
  margin-right: 25px;
  padding-right: 24px;
}

.column, div.span-1,                     screen.css (line 79)
div.span-2, div.span-3,
div.span-4, div.span-5,
div.span-6, div.span-7,
div.span-8, div.span-9,
```

Blueprint

v.0.7.1

Blueprint CSS version 0.7.1 (http://code.google.com/p/blueprintcss/)
Copyright © 2007-2008 Olav Bjorkoy (http://bjorkoy.com)
Cheat sheet v.1.1 by Gareth J M Saunders, based on Help Sheet v.0.3 by Alejandro Vasquez

html
reset.css
grid.css
typography.css
forms.css
ie.css

components

SPAN CLASSES

Use these classes to set the width of a column.

span-1	span-13
span-2	span-14
span-3	span-15
span-4	span-16
span-5	span-17
span-6	span-18
span-7	span-19
span-8	span-20
span-9	span-21
span-10	span-22
span-11	span-23
span-12	span-24

APPEND CLASSES

Add these to a column to append empty columns.

append-1	append-13
append-2	append-14
append-3	append-15
append-4	append-16
append-5	append-17
append-6	append-18
append-7	append-19
append-8	append-20
append-9	append-21
append-10	append-22
append-11	append-23
append-12	

PREPEND CLASSES

Add these to a column to prepend empty columns.

prepend-1	prepend-13
prepend-2	prepend-14
prepend-3	prepend-15
prepend-4	prepend-16
prepend-5	prepend-17
prepend-6	prepend-18
prepend-7	prepend-19
prepend-8	prepend-20
prepend-9	prepend-21
prepend-10	prepend-22
prepend-11	prepend-23
prepend-12	

PUSH/PULL CLASSES

Use these classes on an element to **push** it into the next column, or **pull** it into the previous column.

push-0	
push-1	pull-1
push-2	pull-2
push-3	pull-3
push-4	pull-4

STYLESHEET LINK

Download the latest version from http://code.google.com/p/blueprintcss/ and add these lines into the <head> of your page. Check that your href path is correct.

```
<link rel="stylesheet" href="blueprint/screen.css" type="text/css"
   media="screen, projection">
<link rel="stylesheet" href="blueprint/print.css" type="text/css"
   media="print">
<!--[if IE]>
<link rel="stylesheet" href="blueprint/ie.css" type="text/css"
   media="screen, projection">
<![endif]-->
```

USAGE

```
<body>
   <div class="container">
      <div class="span-15">
         <p>Column 1</p>
      </div>
      <div class="span-6 last">
         <p>Column 2</p>
      </div>
   </div>
</body>
```

div.span-x now implies a column. Remember to use "last" for the last column of the row to avoid it jumping to the next row. Columns can be nested inside one another.

TYPOGRAPHY

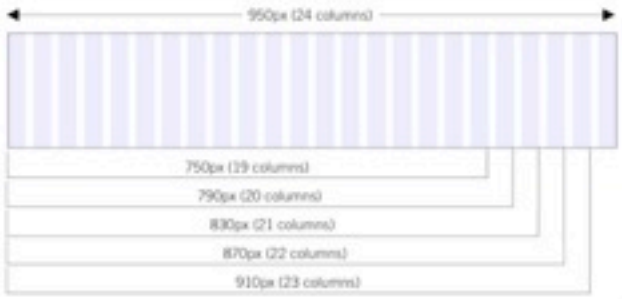
typographic.css sets up some sensible default typography. The font-size percentage is of 16px (0.75 * 16px = 12 px). Line-heights and vertical margins are automatically calculated from this in ems.

The base line-height is 18px (1.5ems). This means that every element, from line-heights to images have a height that is a multiple of 18 (or 1.5 if you use ems).

Color is #222 (dark grey); font-family is "Helvetica Neue", "Helvetica", "Arial", sans-serif. Also defines tables, lists and misc. classes.

GRID

If you need more or fewer columns use this formula to find the new total width:
total width = (columns * 40) - 10



GRID CLASSES

.container	A container should group all your columns; use on .
.showgrid	Use this on any div.span / container to see the grid.
.border	Shows a border on the right hand side of a column; use on .
.colborder	Shows a border with more whitespace, spans one column; use on .
.box	Creates a padded box inside a column. (padding: 1.5em; margin-bottom: 1.5em;).
hr.space	Use this to create a horizontal ruler across a column; can also simply use <hr />.
.clear	Regular clearing, apply to column that should drop below previous ones.
.clearfix	Clearing floats without extra markup.
div.last	The last column in a row needs this class; use on .
div.span-x	Use these classes to set the width of a column; x = 1-24; use on .
.append-x	Add these to a column to append empty columns; x = 1-23.
.prepend-x	Add these to a column to prepend empty columns; x = 1-23.
.push-x	Use these classes on an element to push it into the next column; x = 0-5.

RESET

Blueprint CSS resets all browsers' default tags to :
- margin, padding, border: 0
- font-size: 100%
- font-weight: normal
- other font values: inherit
- image borders: 0

Tables still need "cellspacing="0" in the mark-up though.

TYPOGRAPHY CLASSES

These classes are defined in the typography.css file. Other typographic tags as also redefined in this file.

.small	0.8em; line 1.875
.large	1.2em; line 2.5
.hide	display: none
.quiet	color 666 (grey)
.loud	color 000 (black)
.highlight	bg ff0 (yellow)
.added	bg 060 (green)
.removed	bg 900 (red)
.first	mL 0; pL 0
.last	mR 0; pR 0
.top	mT 0; pT 0
.bottom	mB 0; pB 0

FORMS

These are defined in the forms.css file.

.error	red framed box
.notice	yellow framed box
.success	green framed box
input.text	w 300px pad 5px
input.title	font-size 1.5em
textarea	w 390px h 250px
select	w 200px
label	bold
fieldset	padding 1.4em
legend	font-size 1.2em

IE FIXES

ie.css contains every hack for Internet Explorer.

IE All	Fix margin bugs
	Line height on sub/sup
IE 5	Centre layout
IE 6	Fix legend bug
IE 6 & 7	Fix numbers
	Fix <h1> margins

components

Blueprint Grid CSS Generator

Version: v.0.7.1 (2008-02-25)

INTRODUCTION:

This tool will help you generate more flexible versions of Blueprint's `grid.css` and `compressed.css` and `grid.png` files. Whether you prefer **8**, **10**,**16** or **24** columns in your design, this generator now enables you that flexibility with Blueprint.

Updated to version 0.7.1! Please Note! The default Blueprint CSS files are already generated for you to copy below.

USAGE:

1. Enter your desired **number of columns**.
2. Your **column width**.
3. Enter the width of your **margin**.
4. Enter the desired **page width**.
5. Click **'Generate CSS'** button and copy the results from the **Generated Code** section.

Generator Form:

Number of Columns:

24 [-] [+] [« Fit]

Column Width:

30 px [« Fit]

Margin Width:

10 px [« Fit]

Total Page Width:

Desired Page Width:

950 px

[Generate CSS] [Reset]

Generated Code:

Click in the text area below to copy all the CSS code and save your versions of **grid.css**, **compressed.css** and **grid.png**. Click tabs below to switch between files.

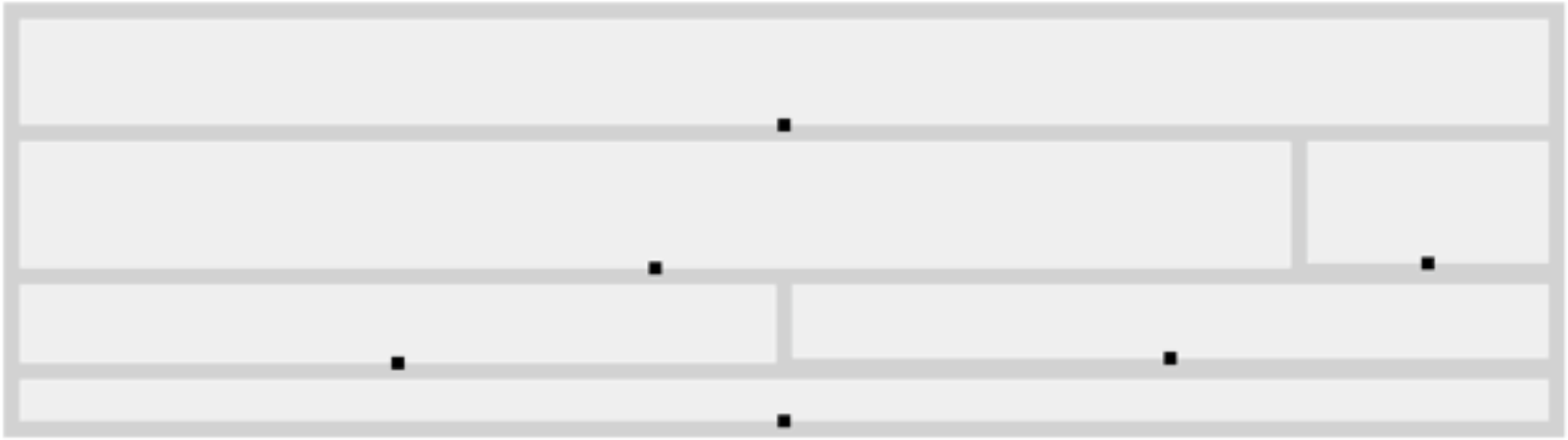
Grid.css | Compressed.css | Grid.png

```
/* -----------------------------------------------------------

   BLUEPRINT CSS
    * Filename:         grid.css
    * Version:          0.7.1 (2008-02-25) YYYY-MM-DD
    * Website:          http://code.google.com/p/blueprintcss/

   Generated by:
    * Blueprint CSS Grid Generator (2009-02-24) [http://kematzy.com
/blueprint-generator/]

   Based on work by:
    * Olav Bjorkoy       [bjorkoy.com]
    * Nathan Borror      [playgroundblues.com]
    * Jeff Croft         [jeffcroft.com]
    * Christian Metts    [mintchaos.com]
```

```
||)) ||   || || ||~||~|| ||))
||   ||__ ||_|| || || || ||))
```

This is **Plumb**, a tool for composing web layouts for use with the Blueprint CSS framework.

Recognize & test



Get HTML

```
<div class="span-24 last column">
  Lorem ipsum dolor
</div>
<div class="span-24 last">
  <div class="span-20 column">
    Lorem ipsum dolor
  </div>
```

Netflix Templates/Grids

components

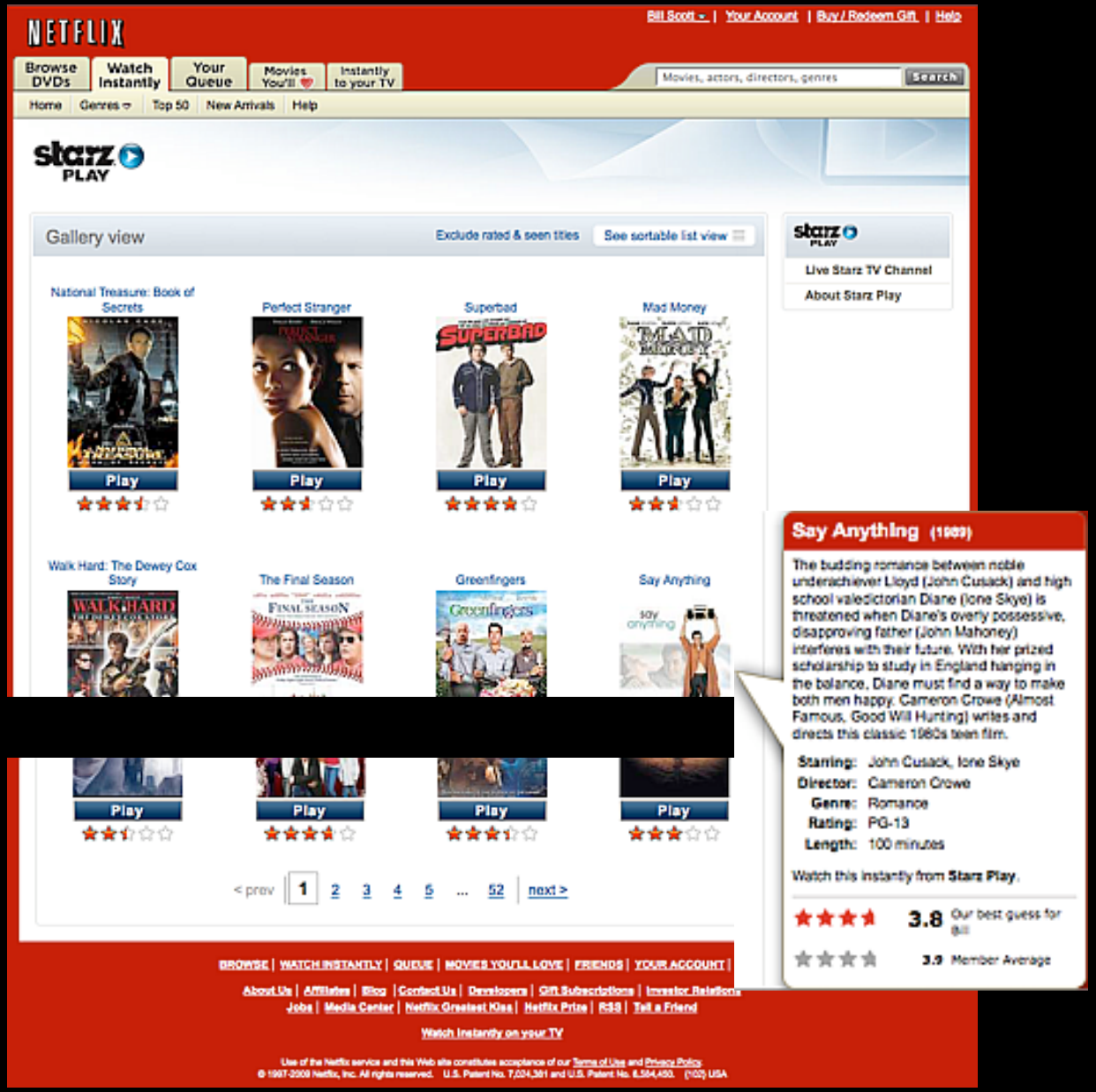
Page Templates: Overview

Templates	Examples
1. Row	· Homepage (DVD & Watch Instantly) · Hub (New Releases) · Hub with related siblings (Genre)
2. Gallery	· Within Group (Subgenre, Collections, Critics Picks) · Filtered by (Critics, Publication, Review Site, Cast)
3. List	· Sortable List (Top 25, Local Favorites, toggled view from Gallery) · List with featured & postcard area (Rate Genre, By Awards)
4. MDP	· MDP (DVD, Watch Instantly, Movies You'll Love, Buy)
5. RDP	· RDP
6. Queue	· Queue
7. Quacl	· Quacl / Quac · General popup layer, FAQ popup layer

Templates	Examples
8. Search Results	· Search Results
9. General Content	· Index Page (All Genres, All Studios, All Collections) · Movie Preview · Content Hub (Help, Your Account, Partner Pages) · Content page with related siblings (Help, Your Account, Pa · Form page (Your Account)
10. Movie Play	· Play Movie without navigation frame

Netflix Gallery Template

components



Netflix Gallery Template

components

Page Elements

1. Header	13. List View Table
2. Footer	14. List Item
3. Page Title	15. Movie lockup
4. Page Column	16. BOB
5. Page Controls	17. Row Card
6. Postcard	18. Starbar
7. Recent Activity	19. Preview Play
8. Content Row	20. Enter text field
9. Slider Row	21. UMA (Unified messaging area)
10. Postcard Row	22. Drop down
11. Search Results Row	
12. Gallery View Table	

4. partnership is imperative

it's tempting to design and toss over the wall.
but the real magic happens during collaboration.

Quotes

partnership

“Our designers start to design things with development in mind, and our developers build code with design in mind. It’s really beautiful. “

“I’ve dealt with a couple of programmers in my career that were just ‘no’ guys - all day every day, no , no , no , - and it’s a terrible experience. There is ALWAYS a way to make something work.”

“From a designer’s perspective: both sides should learn as much as they can about the other sides’ disciplines. It can do nothing but good, fostering a greater understanding for what goes into the tasks each other have.”

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2 keys

Communicate & Iterate

Communicate

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Vocabulary Mismatch

Example: Lockups

Mismatch: components, templates

Mappings: grids -> templates, site elements -> tags

Common Project: Simplified Visual Framework (SVF)

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Vocabulary Mismatch

Example: Lockups

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Common Project: Simplified Visual Framework (SVF)

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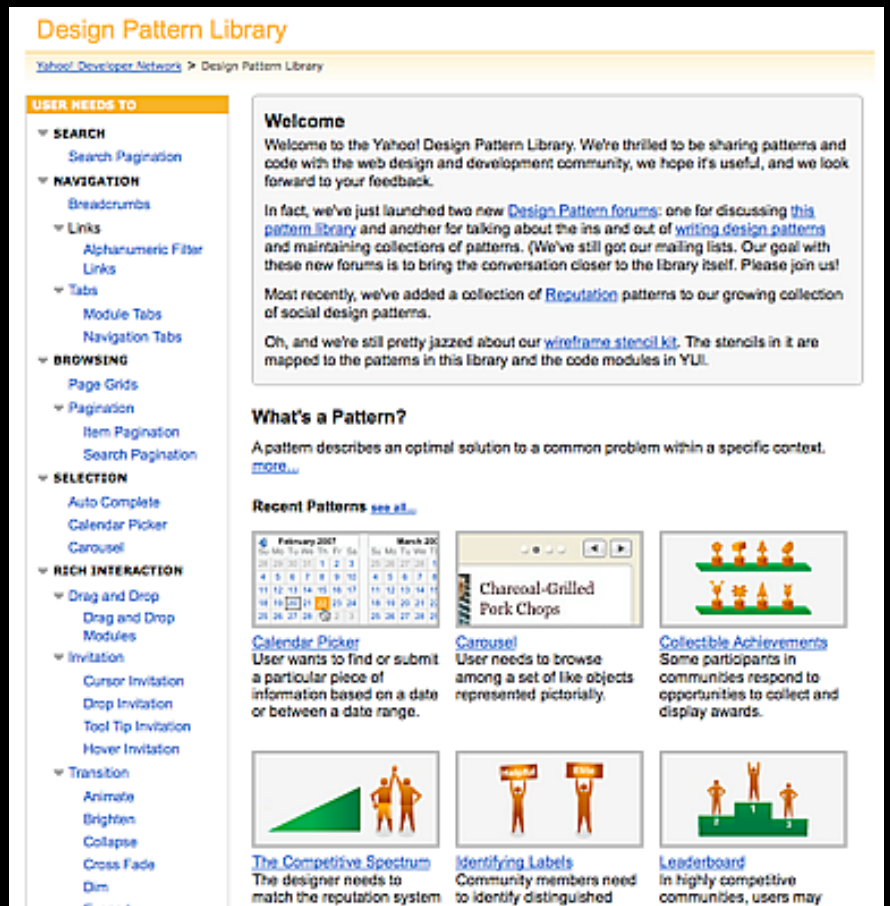
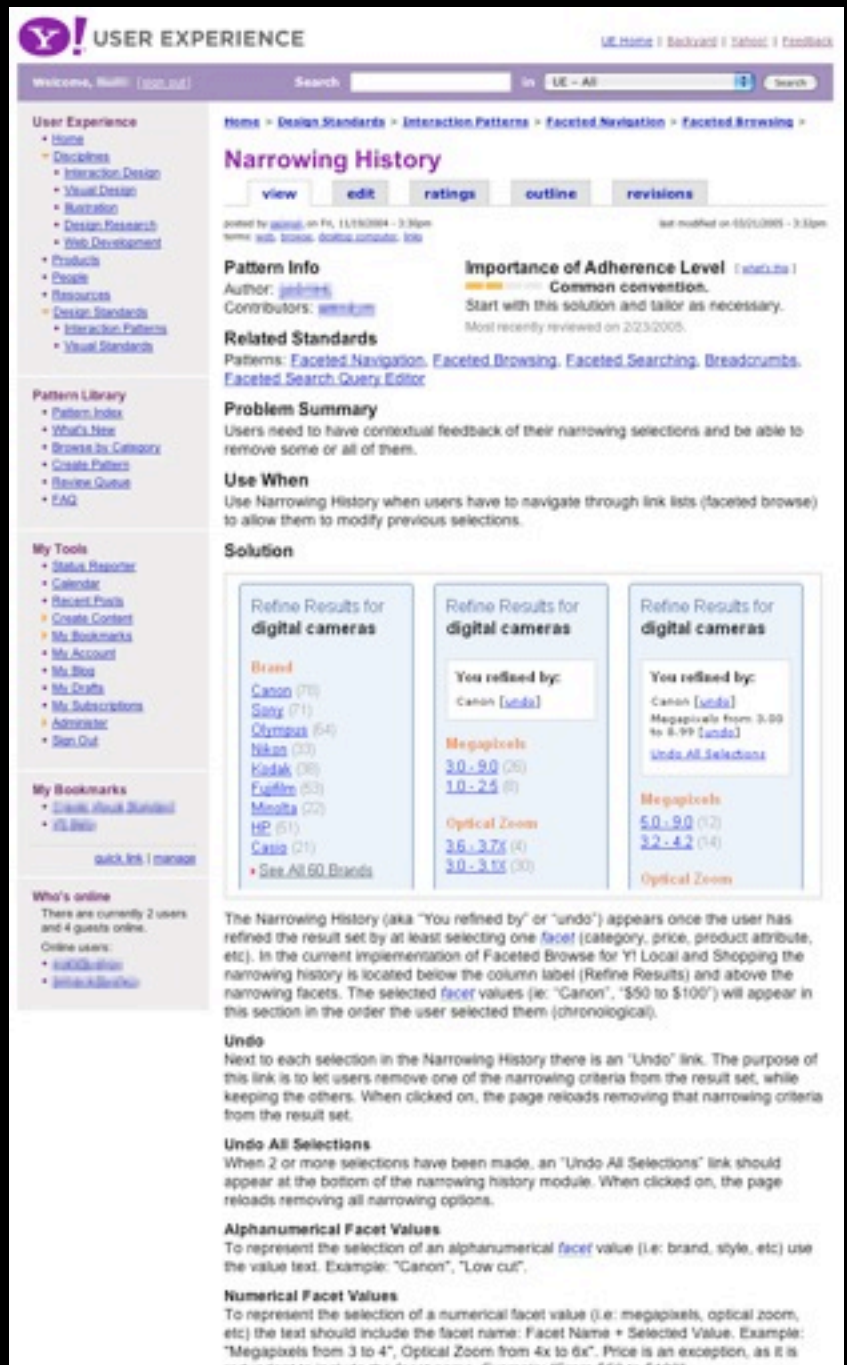
Pattern Library

Nice way to capture the templates, components, interactions that are common

Gets people speaking the same language

More useful in established organizations & where communication spans groups/borders





Communicate

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Learn how to talk to engineers

engineers adverse to unnecessary change; designers must educate “why”

designers feel engineers push back to the point of a “broken design”

which leads to rework... just what they didn’t want

Roundtables

Has worked well @ Netflix. Every Friday at 2pm.

Throw out ideas.

Discuss technical solutions to thorny problems.

Discuss vocabulary. Hear frustrations.

Communicate

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Practice transparency

many designers won't share till it is "perfect"

engineers get surprised

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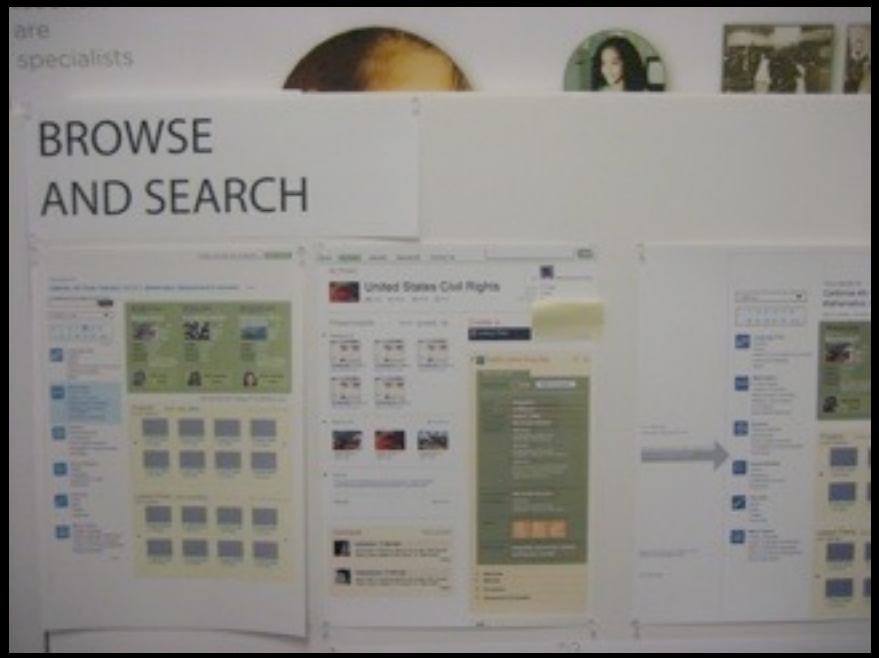
Get your design into the "wild"

Make it visible everywhere



Communicate

partnership

Practice transparency

many designers won't share till it is "perfect"

engineers get surprised

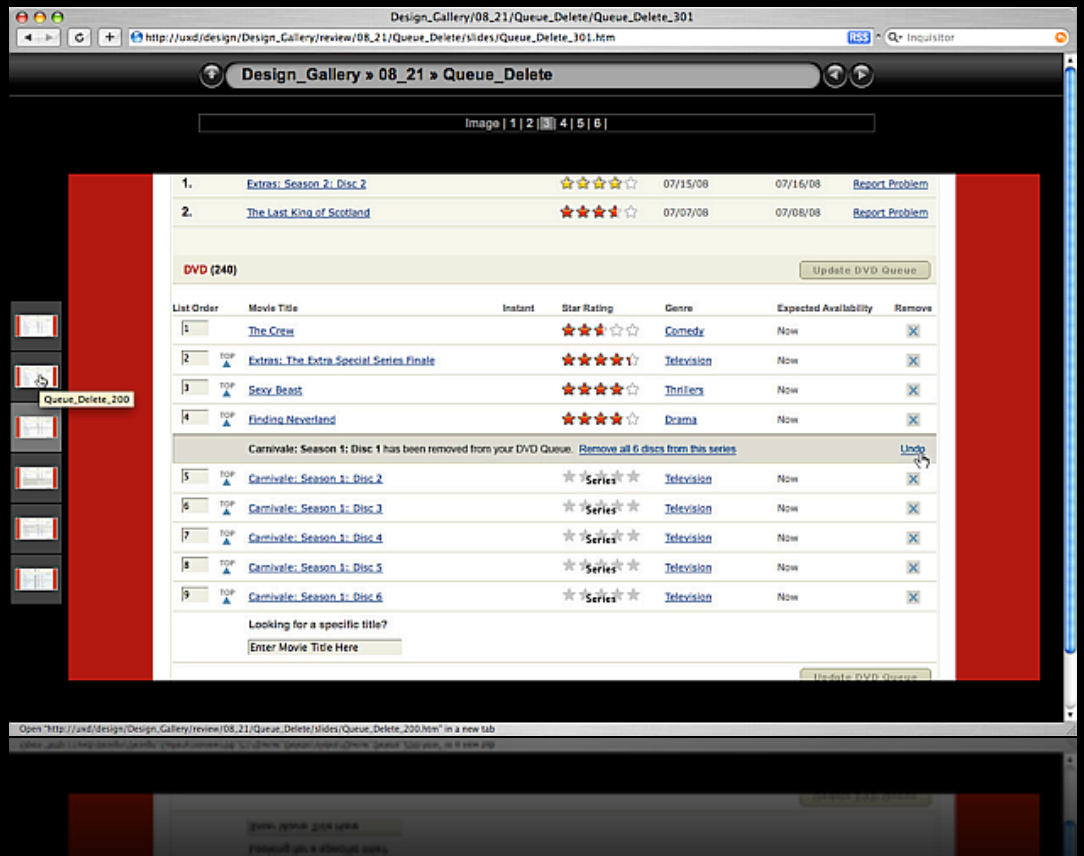
Get your design into the "wild"

Make it visible everywhere

Make it URL-accessible

Stop sharing files by email or embedding on the wiki. Use URLs. Front your file system with an http server.

Use a Design Gallery to make everything reviewed accessible before & after the meeting.



Iterate: Prototype

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Prototype. You know to do this but rarely is the time taken.

This is where a good interface engineer, sufficiently motivated, passionate about interface can step up and be integral to the solution.

When engineering engages in a design like this... the results are beautiful. Everyone is happier (especially the users).

Build multiple prototypes

For interactive rich experiences it takes lots of variations (permutations).

View prototyping as a means to an end... not the final product.

Iterate: Prototype

dynamic

Keynote & Powerpoint can create quick interactive mockups

Keynote: Smart builds, build ins, build outs and actions can simulate a real interface

netflix. rate & replace

Use a prototyping tool

Balsamiq, Azure, iRise, Flash, Flex, Interactive PDFs, Fireworks + PDF, Visio, OmniGraffle

Prototyping is much more accessible now than in the past

Perhaps use jQuery for quick stuff?

Coupled with firebug is a nice way to sprinkle in behavior to existing site

Button Prototypes

NOTE: Prototypes have only been vetted in Firefox 3. Hard refresh pages to make sure you have the latest version

Evaluate for Qual

- Side-by-Side Buttons
  - Member Home
  - Watch Instantly Home
- Play Boxshot Overlay
  - Side-by-Side Add Buttons
    - Member Home
    - Watch Instantly Home
  - Instant Options on Play Click
    - Member Home
    - Watch Instantly Home
    - TODO: On Click Instant Options Flyout
  - Queue Options on Add Click
    - Member Home
    - Watch Instantly Home
    - TODO: On Click Queue Options Flyout
- Eye Boxshot Overlay
  - Member Home
  - Watch Instantly Home
  - TODO: This should be the prototype that Adds to Instant Queue and offers big Play promo on Qual

Alternate Explorations of above

- Bottom Buttons
  - Alternate flyup text

Old Designs: Evaluate for Qual

- Left Buttons
  - Member Home
  - Watch Instantly Home
  - Starbar Not Interested Hidden
  - Show instant options on click
  - Hover in boxshot area of that button activates button hover
- Side-by-Side Buttons
  - Member Home
  - Watch Instantly Home
  - Starbar Not Interested Hidden
  - Disc-only movie button full-width
  - No flyup on disc-only full-width button
- Play Overlay
  - Instant Actions on Play Click
    - Member Home
    - Watch Instantly Home
  - Queue Actions on Add Click
    - Member Home
    - Watch Instantly Home
  - Split Add
    - Member Home
    - Watch Instantly Home

Additional Explorations of above

- Left Buttons
  - Remove Boxshot as MDP Link
  - Only Icon is Hover Target
  - Show Instant Options on Mouseover -- w/ adjustable delays
  - Light Overlay when Inactive
  - Light Overlay with Text when Inactive
- 3 Buttons: Watch Instantly, Instant Add, DVD Add
  - Short Text w/ Verbose Tooltips
    - Member Home
    - Watch Instantly Home
    - Starbar Not Interested Hidden
    - Tooltips could be offered until someone has used the button enough.
    - Text could vary by customer stats (i.e. activated device, day one experience, etc.)
  - Add to Playlist
  - Based on current site catalog, 3 buttons isn't common
- Bottom Buttons
  - Flyup on disc-only full-width button
- Play Overlay
  - Queue Actions on Add Click
    - Show All Icons

Initial Quick Explorations

- Lots of Quick Prototypes
- Expanding Movie Lookup 1
- Expanding Movie Lookup 2 (mini bob-teh)
- Interactive 9/09
- Interactive 9/09: Smaller Footprint
- Interactive 9/09: Smaller Still and Truncated Synopsis
- Interactive 9/09: Wide

100+ variations prototyped over 1 week

Winnowed down between PMs, Design & Eng.

Put before users the next week & again 2 weeks later

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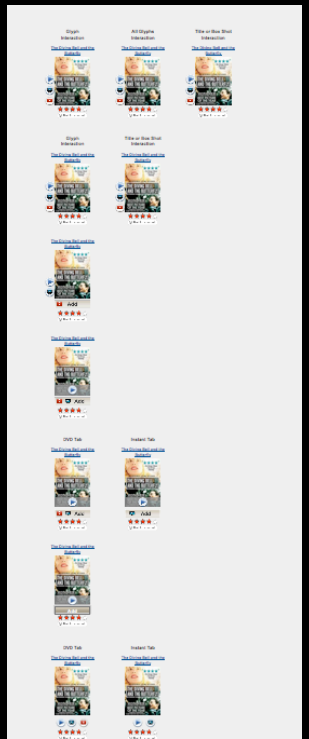

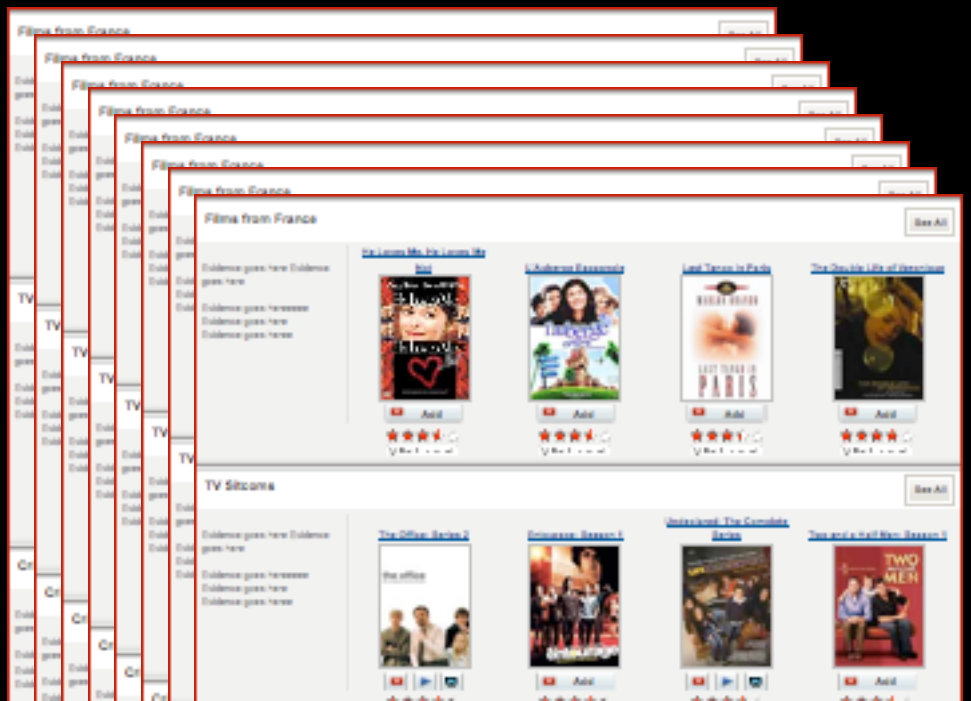

1. the site is dynamic
2. technology is critical
3. components are key
4. partnership is imperative

Questions?