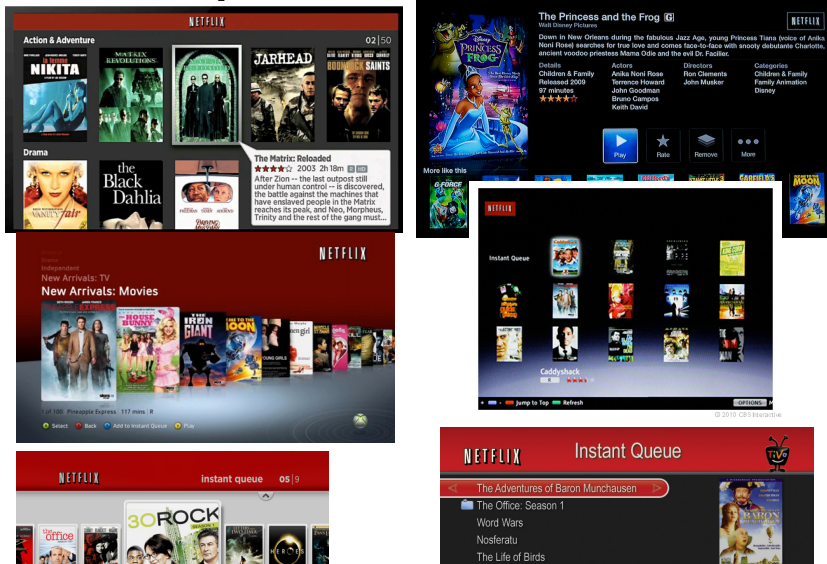
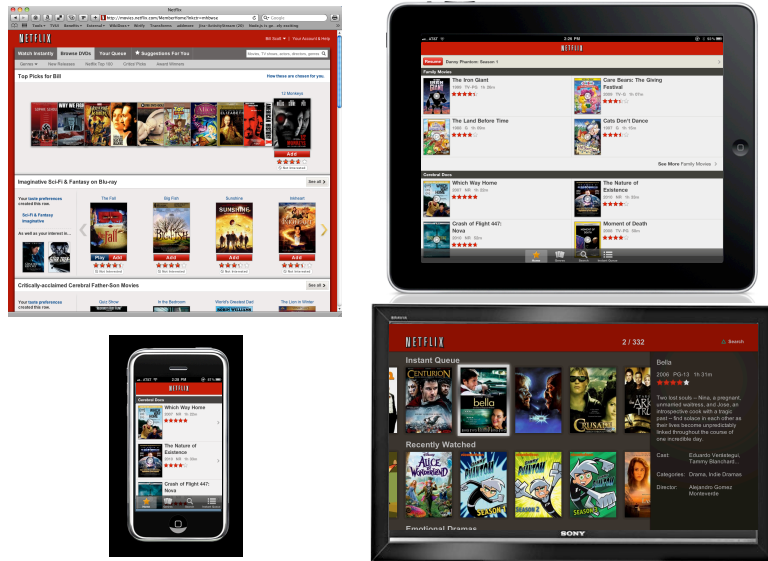




Current Experience Chaos (400 SKUs)



Netflix "Owned" Experience Across Devices



Netflix Across Devices (in-house products)

Web

Tablet

Mobile

TV

Netflix Across Devices (in-house products)

HTML5

HTML5

HTML5

HTML5

Common Platform Across Devices

Web Browser

iOS Webkit

iOS Webkit

**QT Webkit &
Skia Webkit**

Why own the experience?

Known for valuing UX -- can't do it if you don't own it

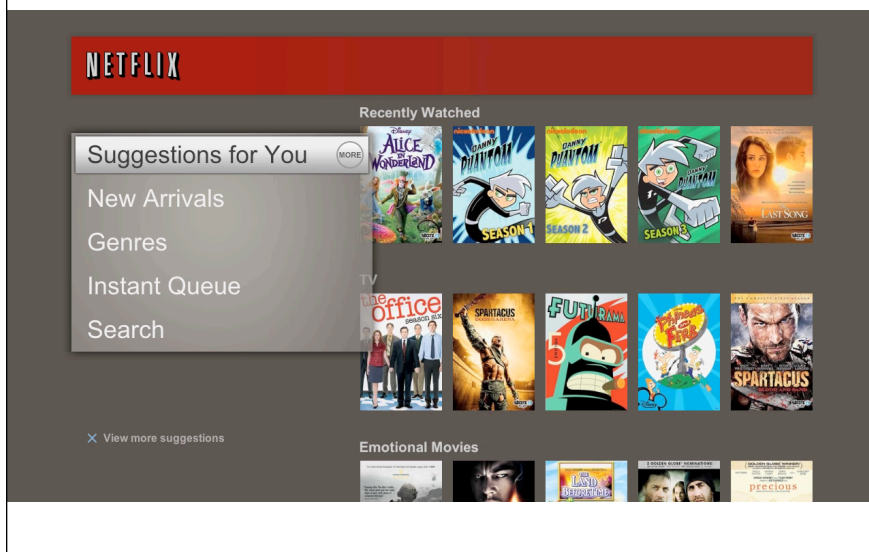
Love server-driven, testable, dynamic UIs

Like agile Web better than rigid CE firmware process

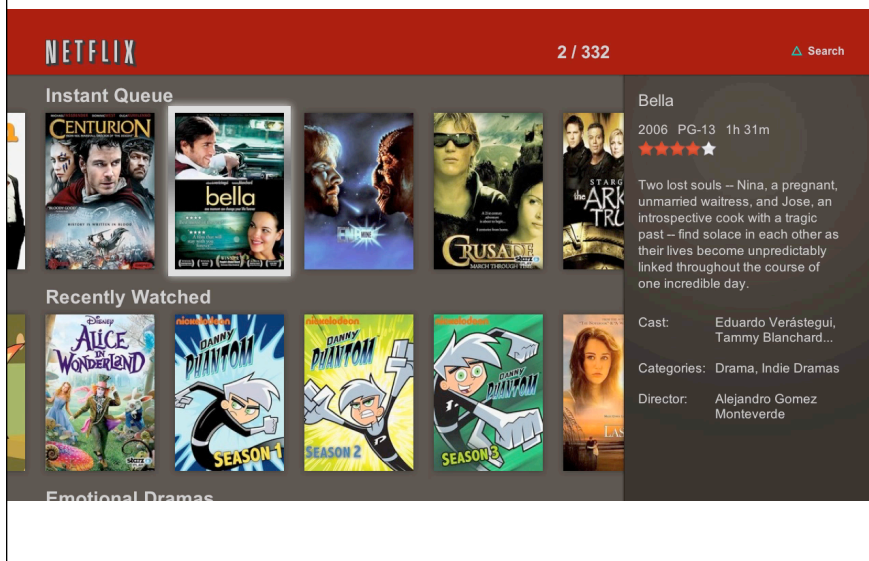
Value "Learn Fast/Fail Quickly"

The reality is any other path is chaos

Initial HTML5 Experience: PS3 - "Special"



Alternate HTML5 Experience: PS3 - "Plus"



Designing Across Platforms

Chose a portability layer (html5, css3, JS)

However, don't use progressive enhancement since want the freedom to experiment with different UX on different platforms

Design for user posture, input capabilities, navigation styles and display capabilities

Embrace the constraints (design for mobile first!)

Designing for Mice & Men



Web

Input
Indirect.
Pointer/keyboard

Navigation
Controls & windows

Posture
Stationary
Working

Display
Hi-Rez
Large,
Near



TV
10' UI

Input
Indirect.
LRUD/OSK

Navigation
Panes

Posture
Lean Back
Relaxing

Display
Hi-Rez
Large
Far-away



Mobile

Input
Direct.
Gesture/OSK

Navigation
Panes

Posture
On-the-go
In Hand

Display
Hi-Rez
Small
Near



Tablet

Input
Direct.
Gesture/OSK

Navigation
Panes & Slideouts

Posture
On-the-go
Lean back
Shared

Display
Hi-Rez
Medium,
Near



So what's common?

design principles

fundamental, universal ideas
that underpin good design
across different input methods,
display capabilities and user
posture

but the application of principles
varies across

- **input**
- **posture**
- **navigation**
- **display**

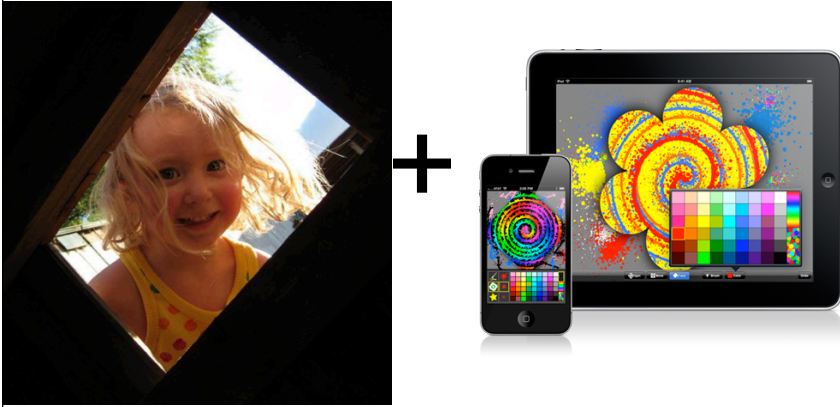
Three Principles

common design principles for
multiple platform design

A hand holding two walnuts against a red background with mathematical formulas. The formulas include $E = mc^2$, $E = \frac{mc^2}{\sqrt{1 - \frac{v^2}{c^2}}}$, and $\frac{2GM}{r} = \frac{h^2}{2m\lambda^2}$.

#1 Get Physical

The Illusion of Physicality



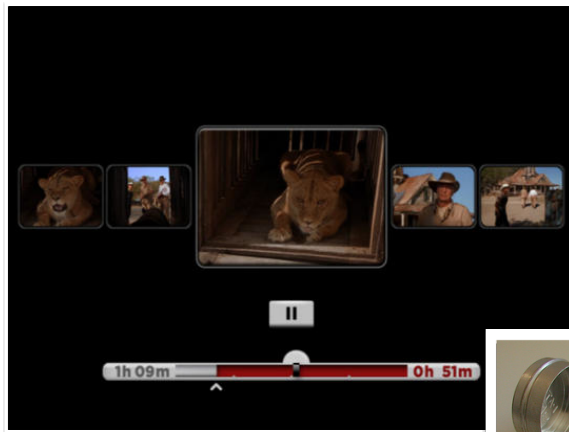
Design for Physicality

Whenever possible, add a realistic,
physical dimension to your application.

- Apple HIG

Use Metaphors to Embody Physicality

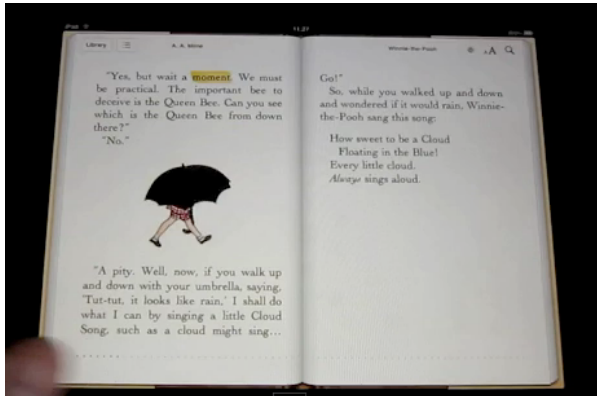
Physicality as Metaphor



Film Strip



Physicality as Metaphor

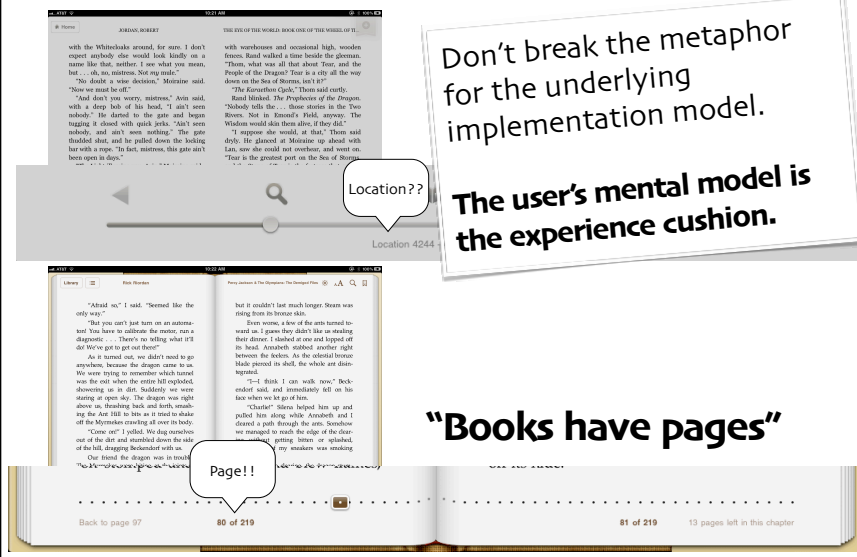


book

“Books have pages”

“Pages turn”

Anti-Pattern: Broken Metaphor

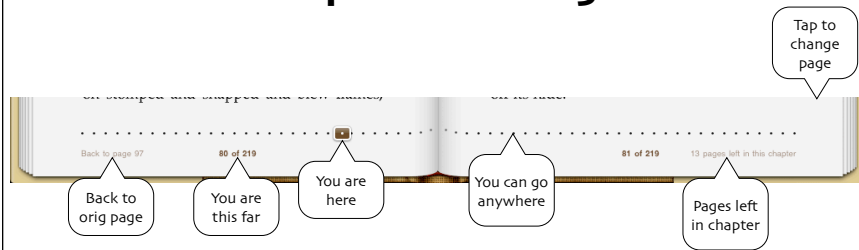


Don't break the metaphor for the underlying implementation model.

The user's mental model is the experience cushion.

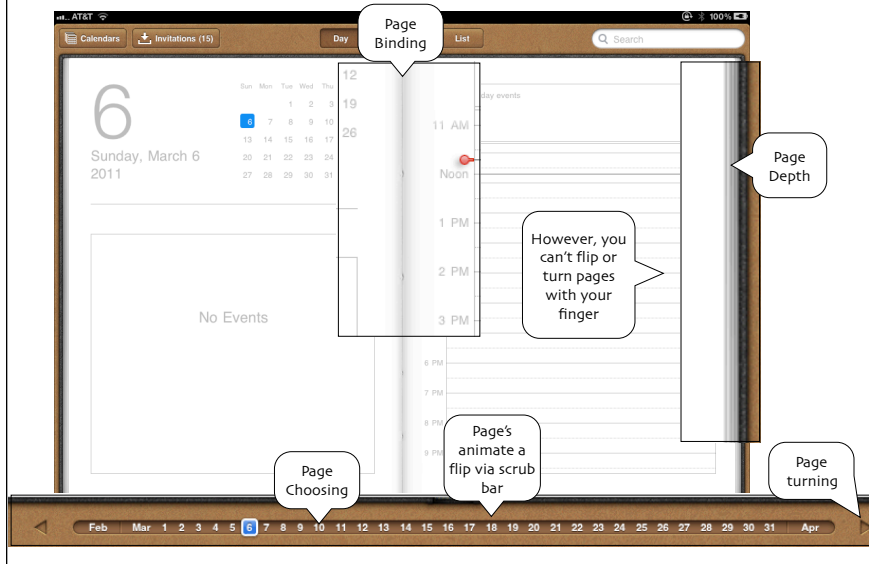
“Books have pages”

Break the Metaphor with Magic

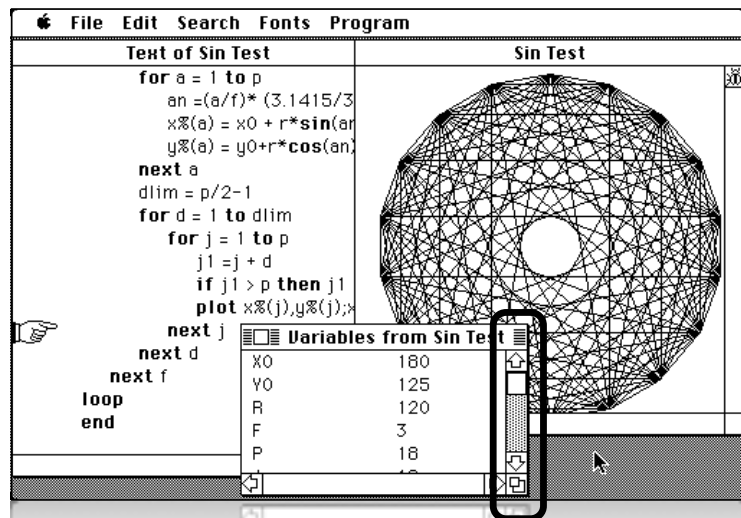


Strict physicality is hard work.
Use magic to simplify the real world.

To Flick or not to Flick



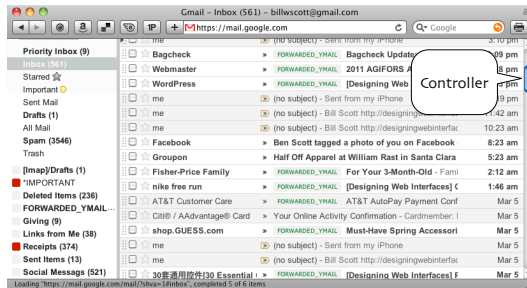
Use Directness to Simulate Physicality



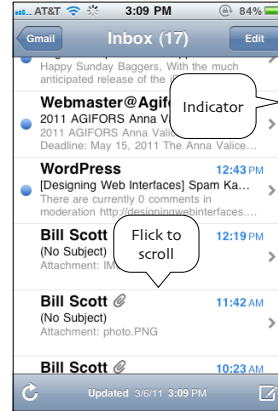
in 1984, this was physicality - the scrollbar

Scrollbar Evolution

From Controller to Indicator
Content is scrolled instead of scrollbar



Thumbwheel is an evolution as well



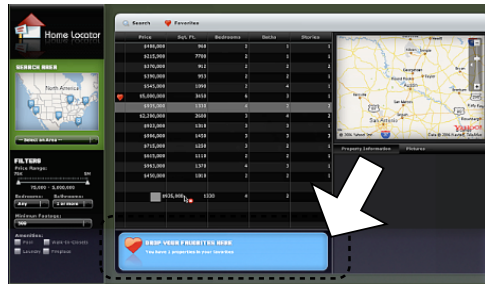
It must feel real



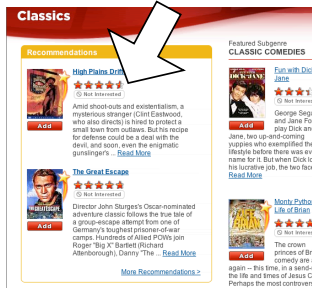
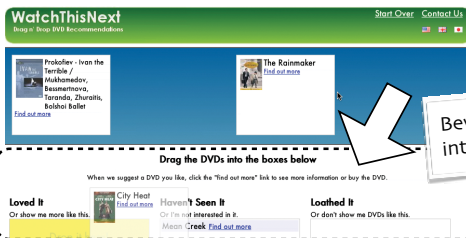
Make sure event
handling is consistent

Remember fingers are
fat. Real estate is limited

Anti-Pattern: Mismatched Metaphor



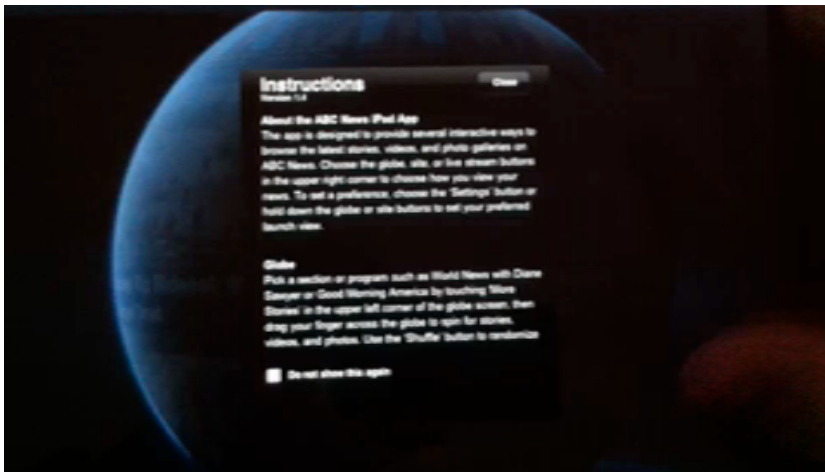
anti-pattern: artificial construct



netflix. rate an object. KISS.

Beware of constructing artificial visual interfaces to support drag and drop

Anti-Pattern: Mismatched Metaphor



(Metaphors Gone Wild)

How Fat is Your Input?

	Targeting Size
Web (Pointer)	16 pixels (but accurate as 1 pixel)
Mobile/Tablet (Finger)	44 pixels*
Remote (LRUD)	44 pixels
Remote (Pointer)	44 pixels

* Josh Clark's recommendation - Tapworthy

Physicality Across Platforms

	Input
Web	Pointer Indirect Fine-grained (pixel)
Tablet	Finger Direct Course-grained (finger)
Mobile	Finger Direct Course-grained (finger)
TV	Remote Control Indirect Course-grained (1 object at a time)



#2 Maintain Flow



Exploratorium Exhibit

Spot the differences



Now try again...

Change blindness



Change Blindness

The brain cannot see a change happening to an element that it has not yet stored - Wikipedia

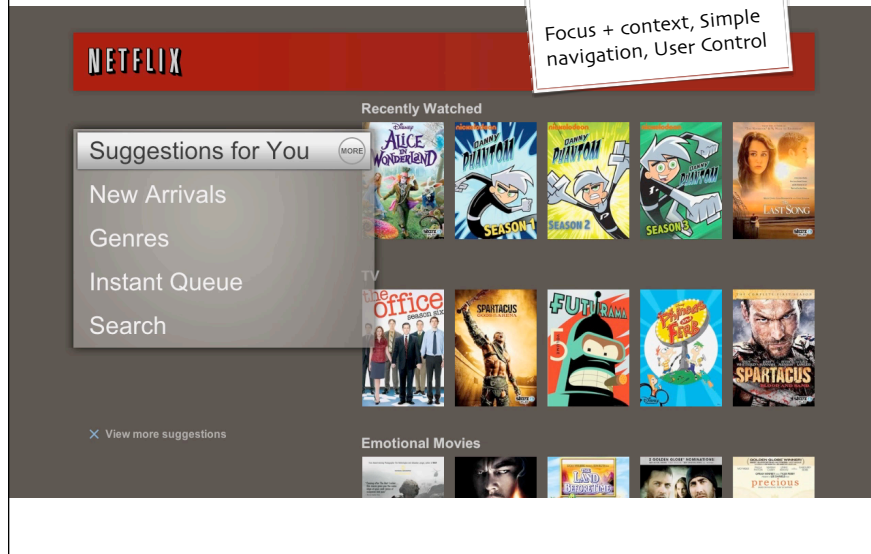
In other words, it doesn't expect the world to be discontinuous.

**Reduce Page
Switching
to Maintain Flow**

"Special" Experience

Principles followed:

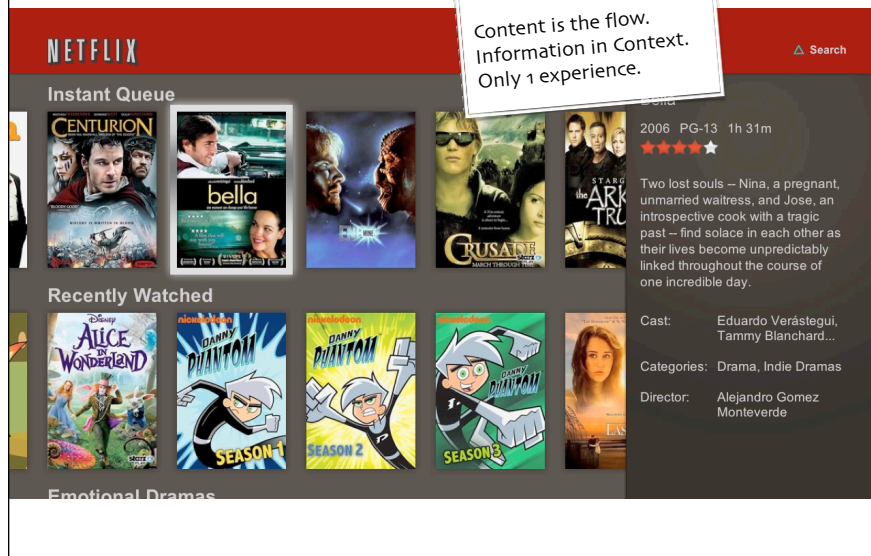
Focus + context, Simple navigation, User Control



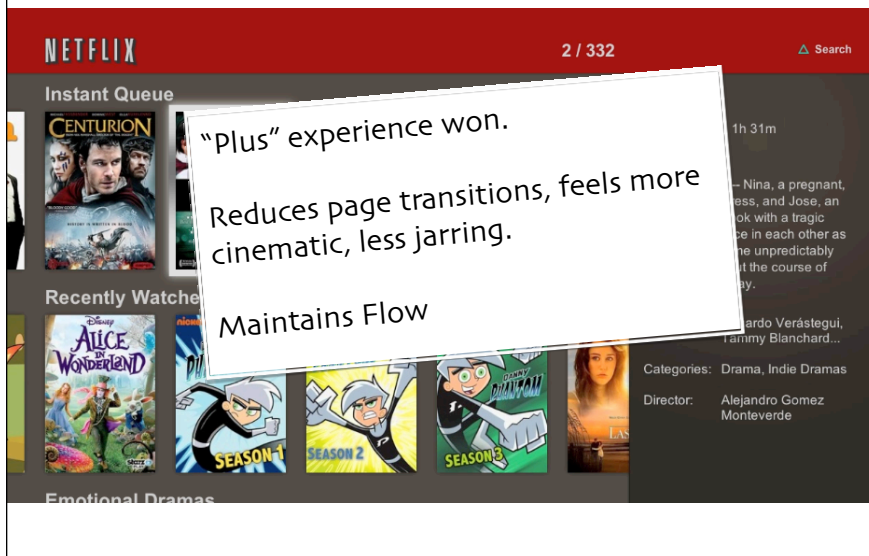
"Plus" Experience

Principles followed:

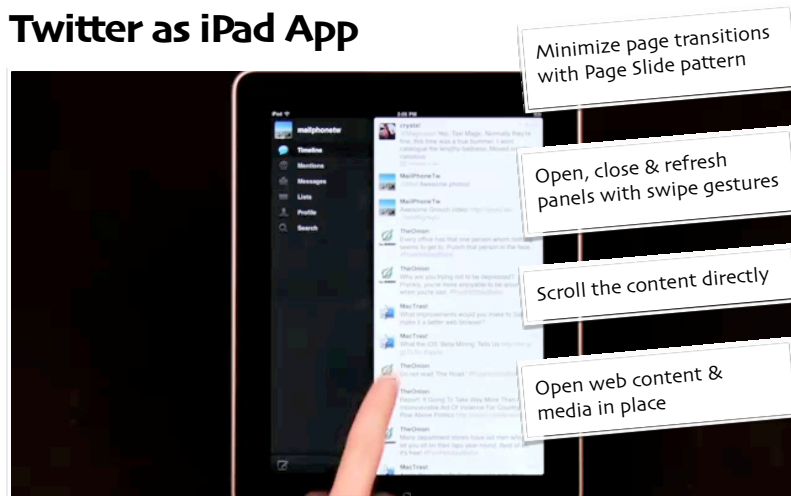
Content is the flow.
Information in Context.
Only 1 experience.



Which Won?



Twitter as iPad App



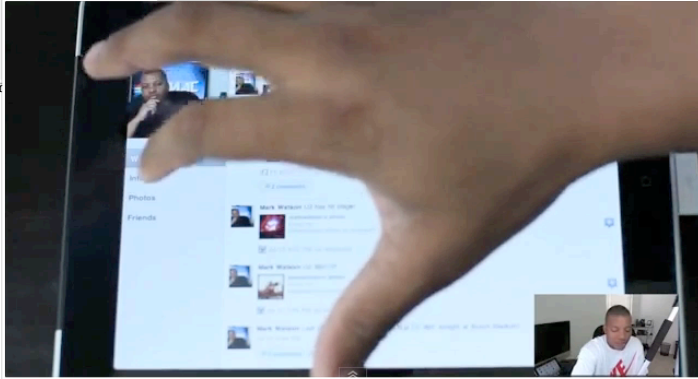
Page Slide

Page Slides extend the real estate and simplify "window management"

Original Content

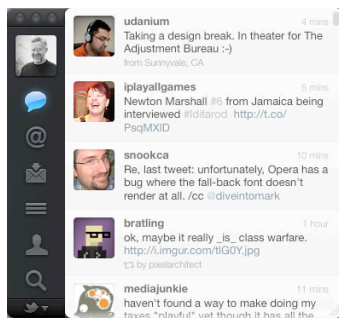
Page slides to reveal secondary pane

<http://srobbin.com>



<http://www.youtube.com/watch?v=WBv3fFg8t8g>

Twitter as Mac App

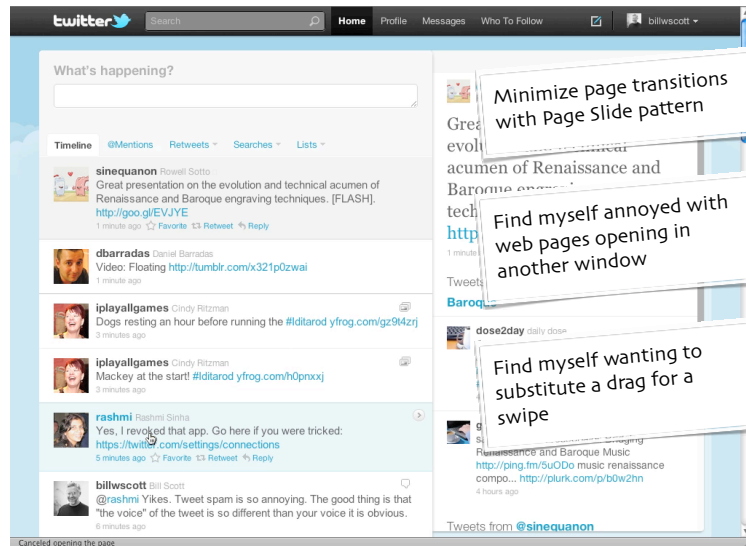


Navigate to other areas using smooth transitions (make flow visible)

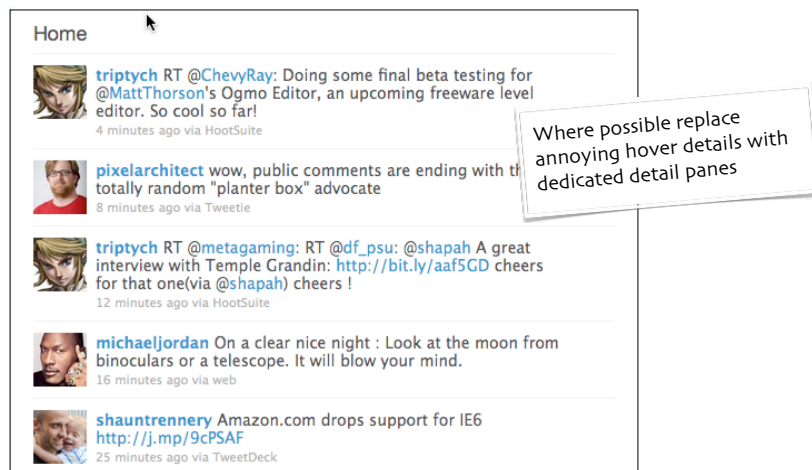
Anti-Pattern: breaking the flow with menus & popouts.

Rethink desktop apps to use real estate more creatively

Twitter as Web App



Vs Hover & Cover



Keep Navigation Simple to Maintain Flow

Mobile Navigation



Three types of iPhone
navigation: Flat, Tab, Tree

- Josh Clark (Tapworthy)



Gowalla: Tab + Flat

- Josh Clark (Tapworthy)

Source: Tapworthy by Josh Clark

Pulse & Flipboard iPad Apps



Maintaining Flow Across Platforms

	Navigation
Web	Page, Tab, Back Button
Mobile	Flat, Tab & Tree. 1 level back.
Tablet	Flat, Tab, Master/Detail. 1 level-back
TV	Flat, Tab, Tree, Master/Detail



#3 Be Responsive

**Use Transitions/
Animations
to Create
Responsiveness**



Animation Can...

Be really, really
annoying

TurboTax Deluxe

Personal Info Federal Taxes Federal Review State Taxes Print & File

Wages & Income Deductions & Credits Other Tax Situations

Federal Tax Due
\$10,533

CA Tax Due
\$4,973

Enter Your Interest Paid to Some Lender
Deductible interest paid in 2008 [See qualifications and limitations.](#)

(Box 1 on your 1098)

Federal Tax Due
\$10,533

CA Tax Due
\$4,973



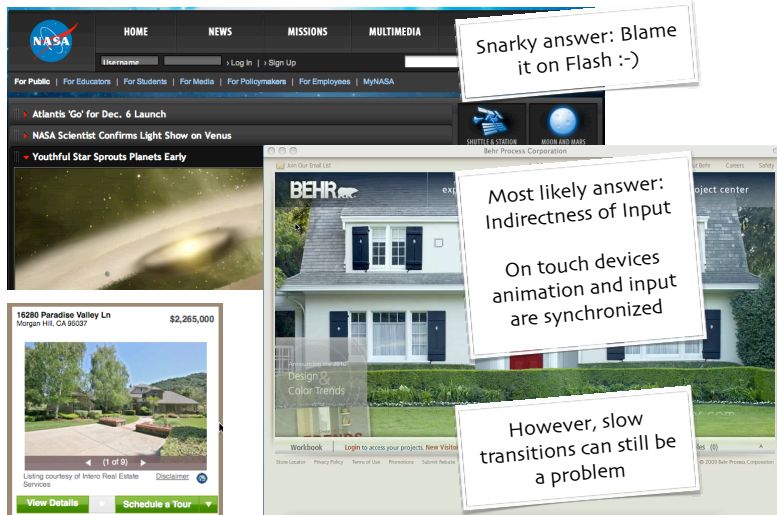
What can be done with less is
done in vain with more.

- Occam

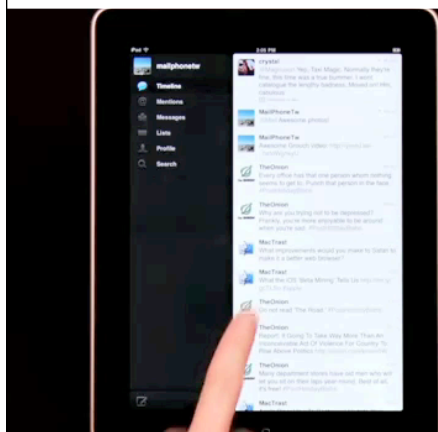
Make all visual distinctions as
subtle as possible, but still clear
and effective.

- Tufte "Smallest Effective Difference"

Web Apps Seem Prone to This



Animation Can...



Reveal relationships

Improve responsiveness

Show state change

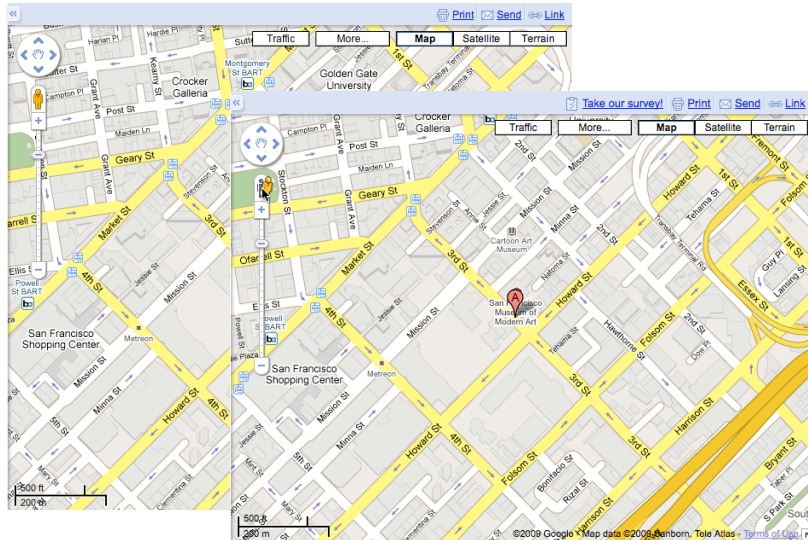
Focus attention

Create delight

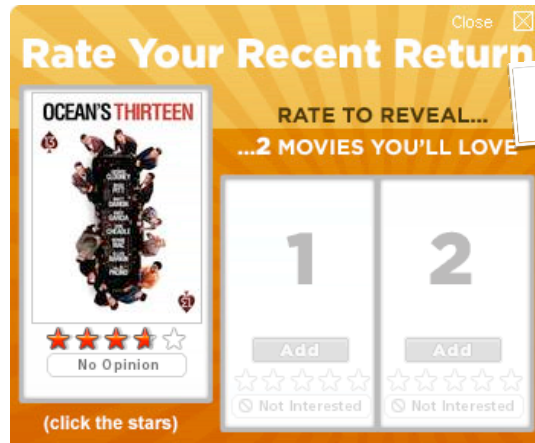
Simulate physicality

Use Invitations to Create Responsiveness

Just in Time Invitations at Drag Moments

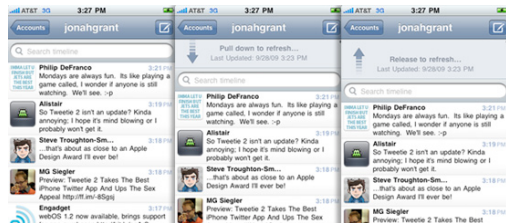


Invitations at Reward Moments

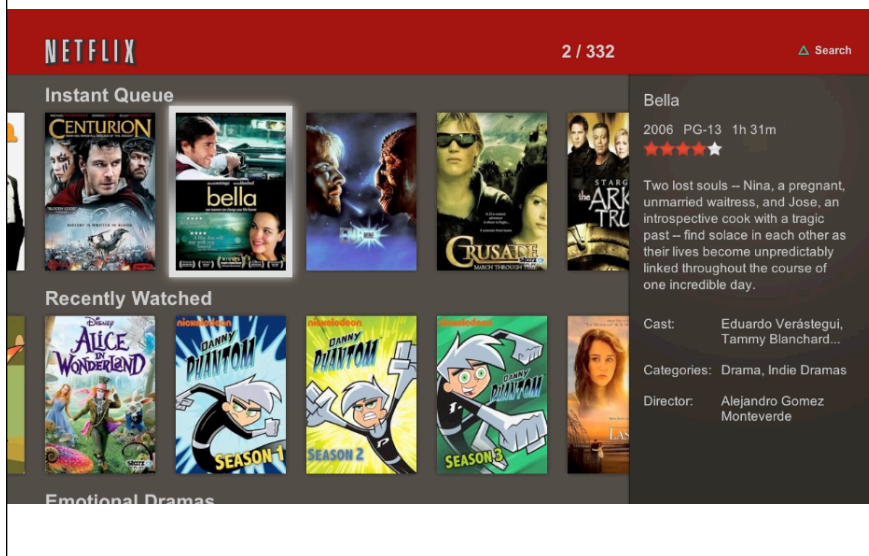


Major source of
obtaining ratings

Mobile Invitations at Touch-Hold Moments

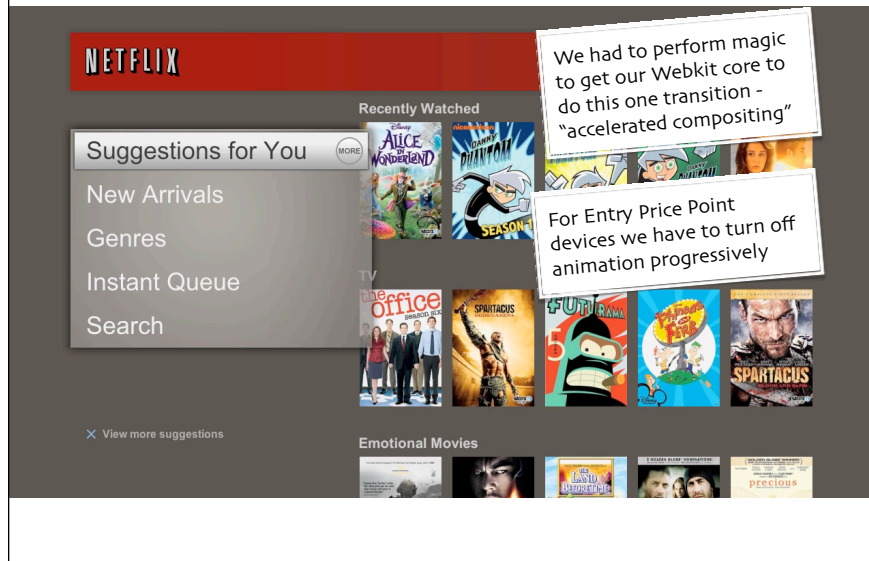


Content as an Invitation



**Be Snappy
to
Be Responsive**

Performance is Not Always a Given



Advances in HTML5

Scrollability, New iOS Physics Project from Facebook for iPhone Creator, Joe Hewitt

By Sarah Perez / May 20, 2011 6:58 AM / 6 Comments

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This post is part of our ReadWriteMobile channel, which is dedicated to helping its community understand the strategic business and technical implications of developing mobile applications. This channel is sponsored by Alcatel-Lucent. As you're exploring these resources, check out this helpful resource from our sponsors: [Cultivating a Developer Ecosystem: Understanding Their Needs](#)



Joe Hewitt, the creator of the Facebook iPhone app, Firebug, and former contributor to Mozilla's Firefox, [announced earlier this month](#) that he was leaving Facebook to go build "tools." What sorts of tools? Not just mobile tools, but "tools for writers, designers, programmers, whatever," he wrote on his personal [blog](#).

Since then, many developers have been eagerly anticipating the tools Hewitt will create. Today, we get to see what one of those is: [Scrollability](#), a script that brings native scrolling to mobile Web applications.

What's Scrollability?

According to [the project's website](#), Scrollability is a single script, that's small, and with no external dependencies. You "drop it into your page, add a few CSS classes to scrollable elements, and scroll away," [the site explains](#).

Arnulfo Heriberto Hao

Elbert Murray Heartsill

Responsiveness Across platforms

	Input
Web	Pointer Indirect
Tablet/ Mobile	Fingers Direct
TV	Remote Indirect

TV Experiences...

NETFLIX2 / 332Search

Instant Queue



Recently Watched



Emotional Dramas

Bella

2006 PG-13 1h 31m

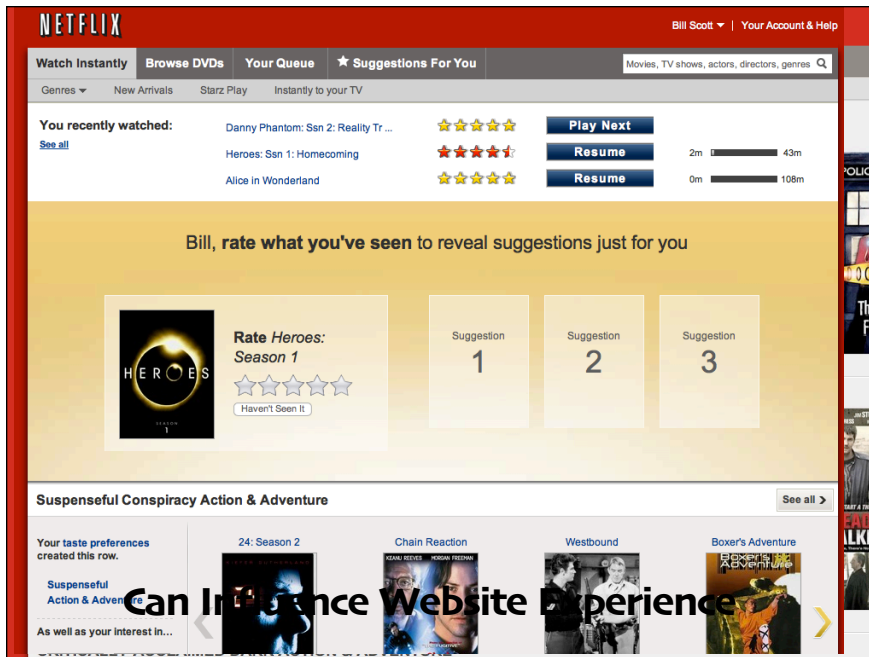
★★★★☆

Two lost souls – Nina, a pregnant, unmarried waitress, and Jose, an introspective cook with a tragic past – find solace in each other as their lives become unpredictably linked throughout the course of one incredible day.

Cast: Eduardo Verástegui, Tammy Blanchard...

Categories: Drama, Indie Dramas

Director: Alejandro Gomez Monteverde



Presentation
billwscott.com/share/presentations/2011/ui16

Blogs
<http://looksgoodworkswell.com>
<http://designingwebinterfaces.com>

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http://www.flickr.com/photos/tim_d/29529584/sizes/l/
<http://www.flickr.com/photos/miradesdunaficionat/4519236888/sizes/z/>
<http://www.flickr.com/photos/zetson/>
<http://www.flickr.com/photos/spencereholtaway/1411877351/in/photostream/>
<http://creativecommons.org/ns>