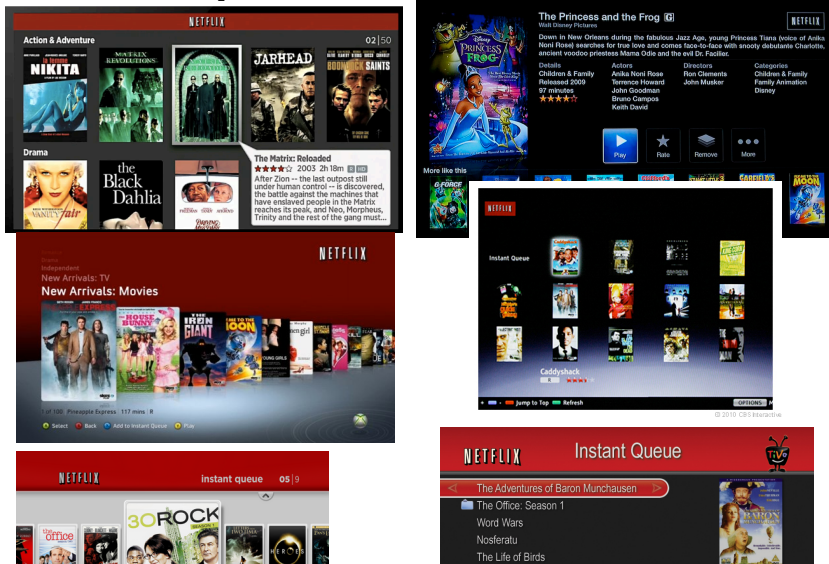
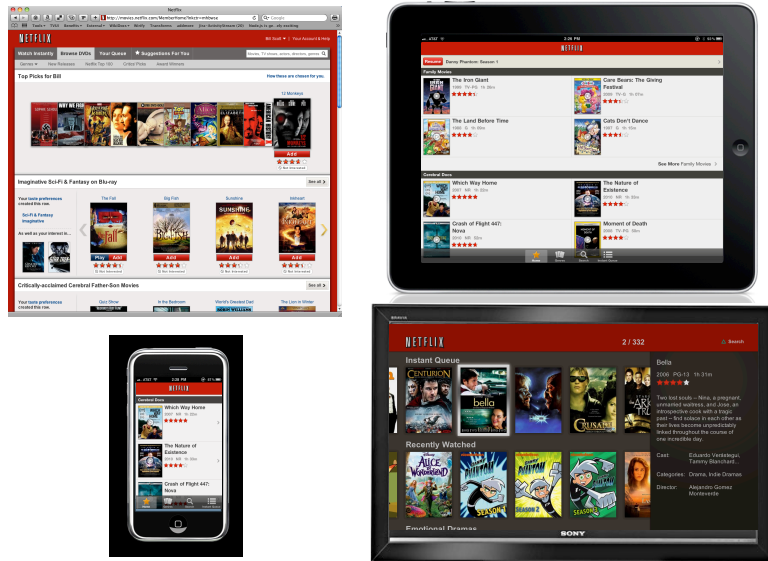




## Current Experience Chaos (400 SKUs)



## 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

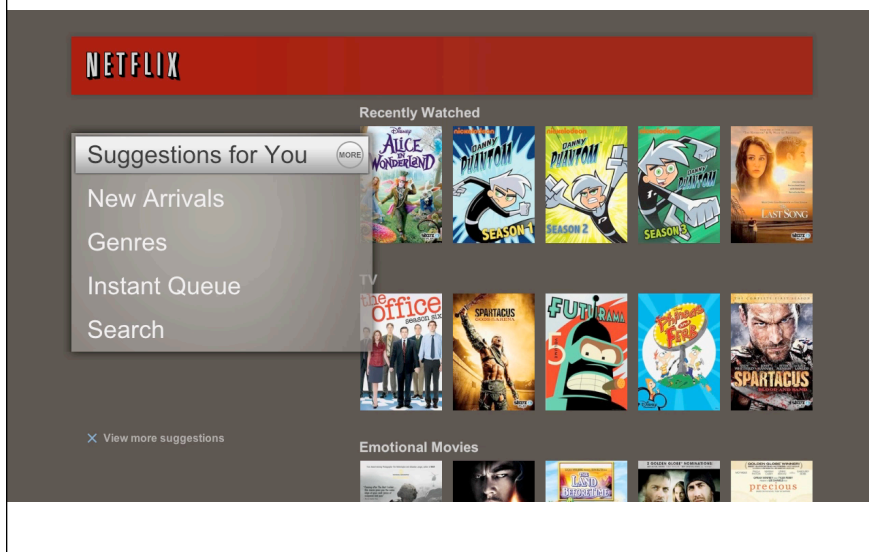
Love server-driven, testable, dynamic UIs

Like agile Web better than rigid CE firmware process

Value "Learn Fast/Fail Quickly"

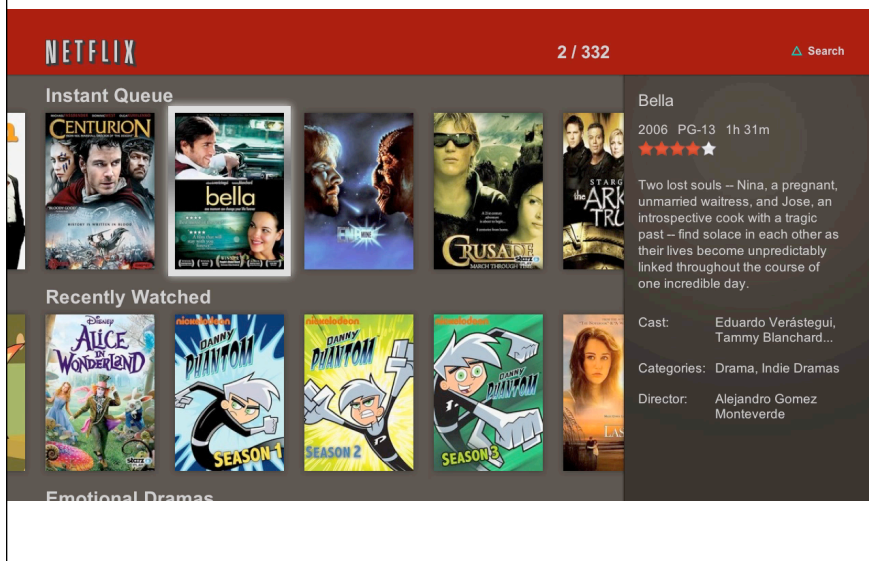
The reality is any other path is chaos

## 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**

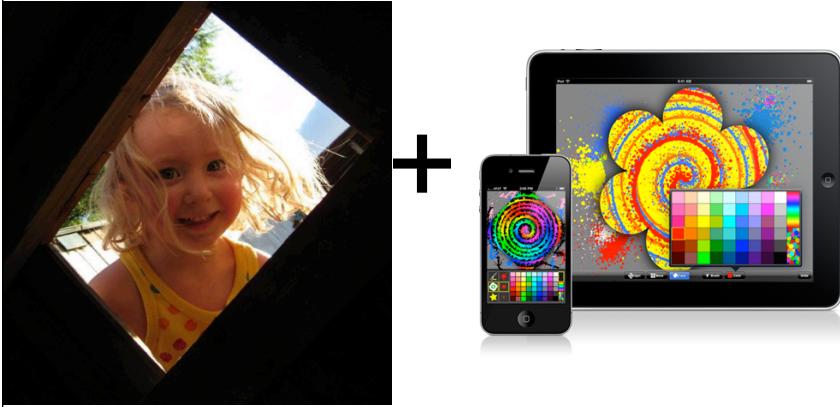
# Three Principles

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



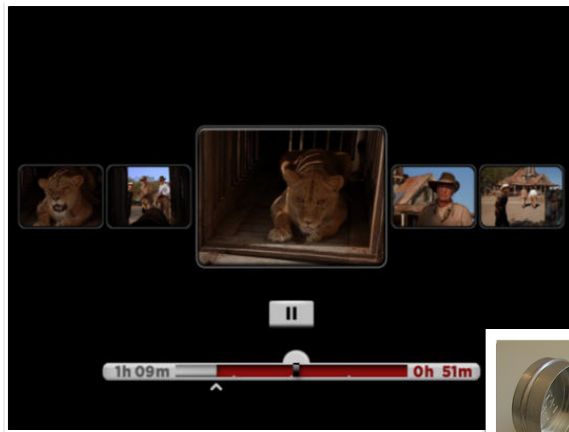
## Design for Physicality

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

- Apple HIG

# Use Metaphors to Embody Physicality

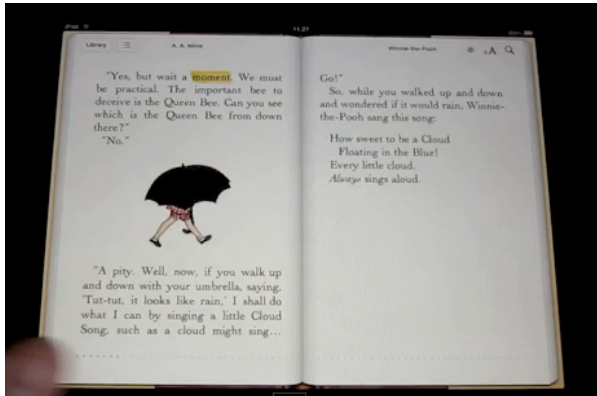
## Physicality as Metaphor



Film Strip



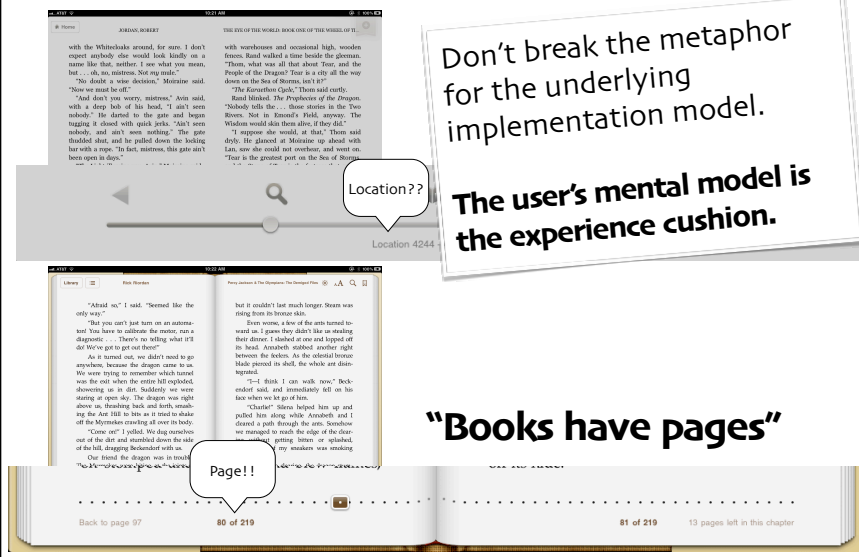
# Physicality as Metaphor



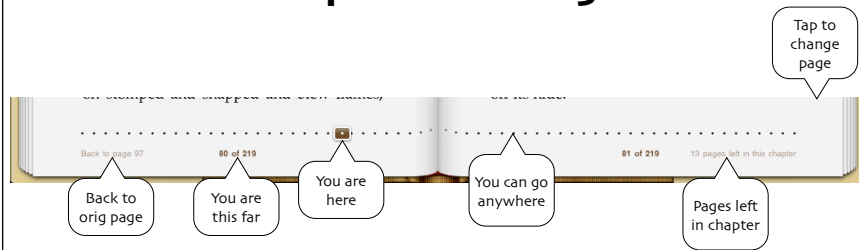
“Books have pages”

“Pages turn”

# Anti-Pattern: Broken Metaphor

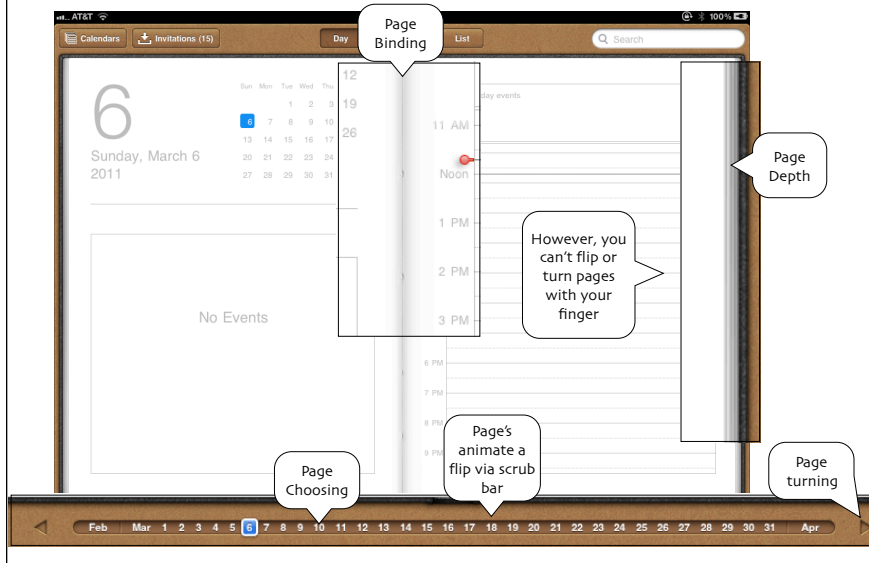


## Break the Metaphor with Magic

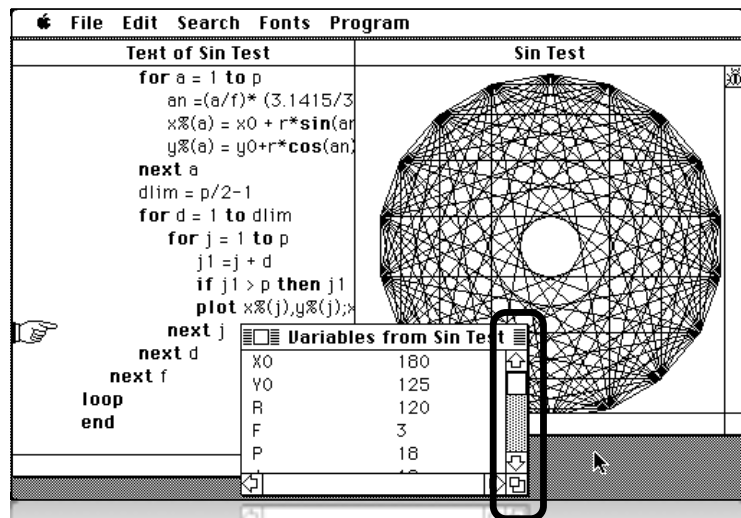


Strict physicality is hard work.  
Use magic to simplify the real world.

## To Flick or not to Flick



# Use Directness to Simulate Physicality

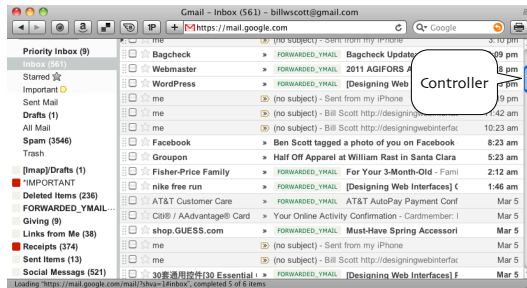


in 1984, this was physicality - the scrollbar

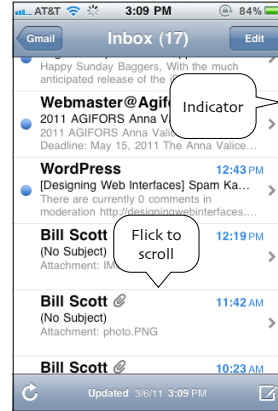


# Scrollbar Evolution

From Controller to Indicator  
Content is scrolled instead of scrollbar



Thumbwheel is an evolution as well



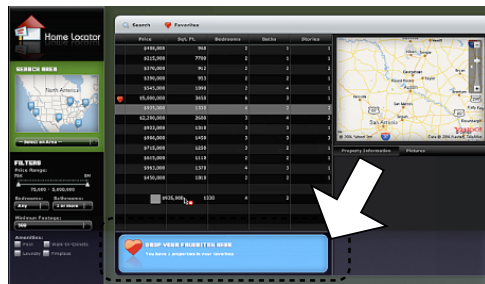
## It must feel real



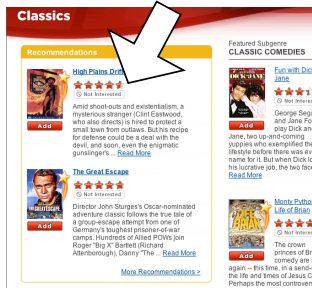
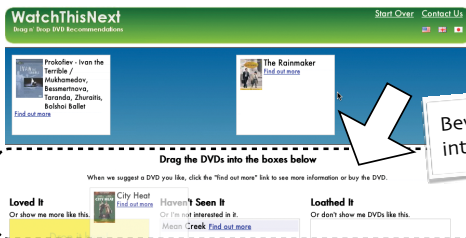
Make sure event  
handling is consistent

Remember fingers are  
fat. Real estate is limited

## Anti-Pattern: Mismatched Metaphor



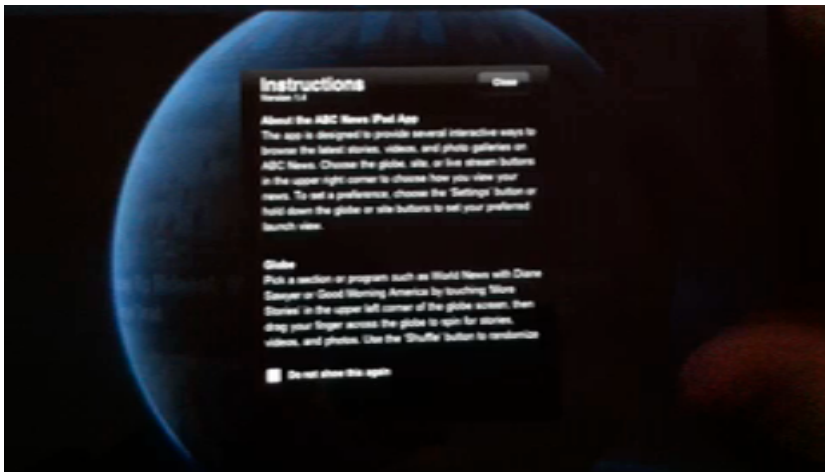
anti-pattern: artificial construct



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.

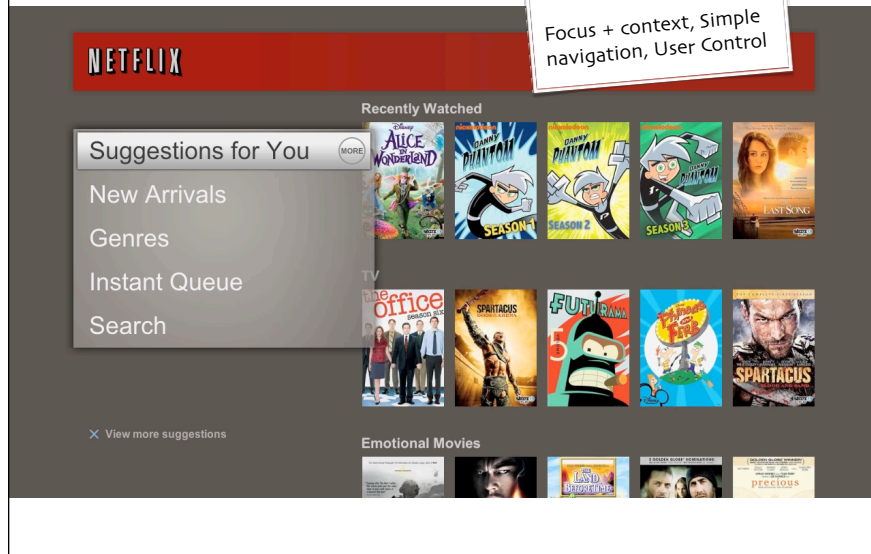
**Reduce Page  
Switching  
to Maintain Flow**



## "Special" Experience

Principles followed:

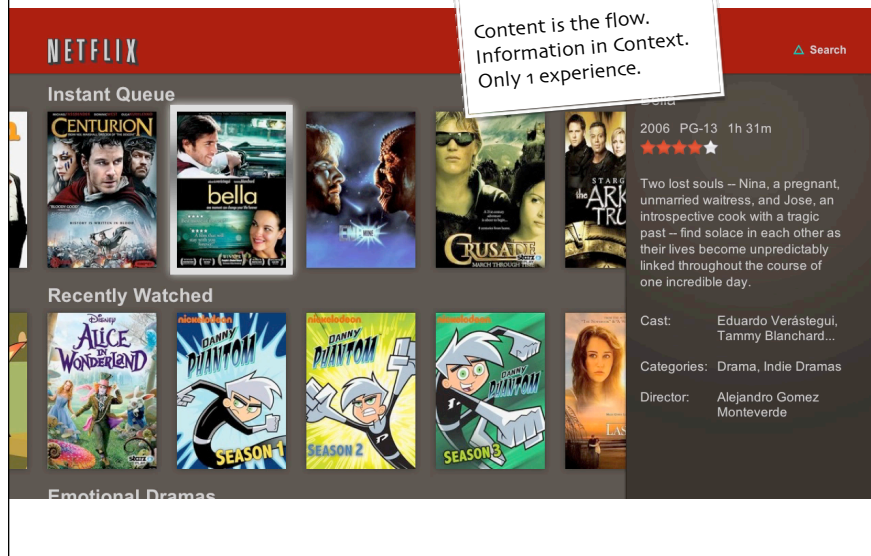
Focus + context, Simple navigation, User Control



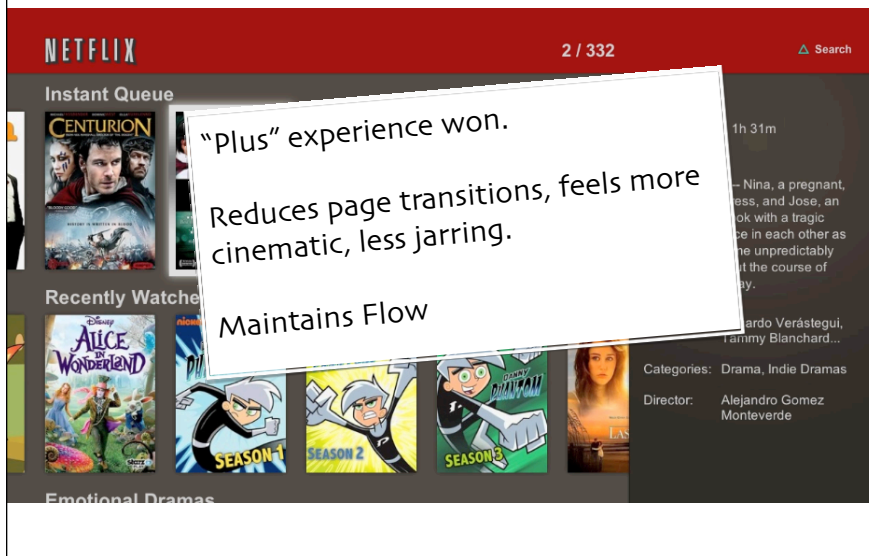
## "Plus" Experience

Principles followed:

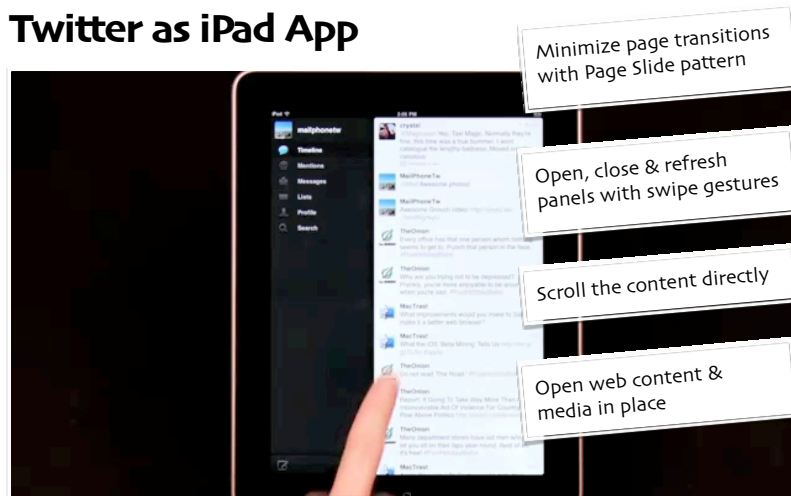
Content is the flow.  
Information in Context.  
Only 1 experience.



## Which Won?



## Twitter as iPad App





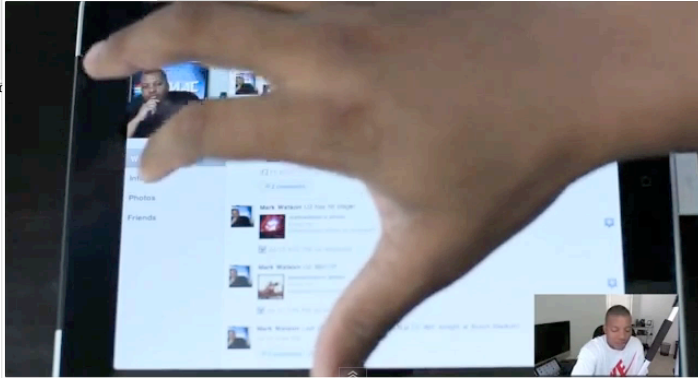
## Page Slide

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

Original Content

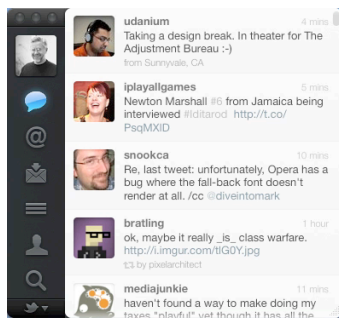
Page slides to reveal secondary pane

<http://srobbin.com>



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

## Twitter as Mac App

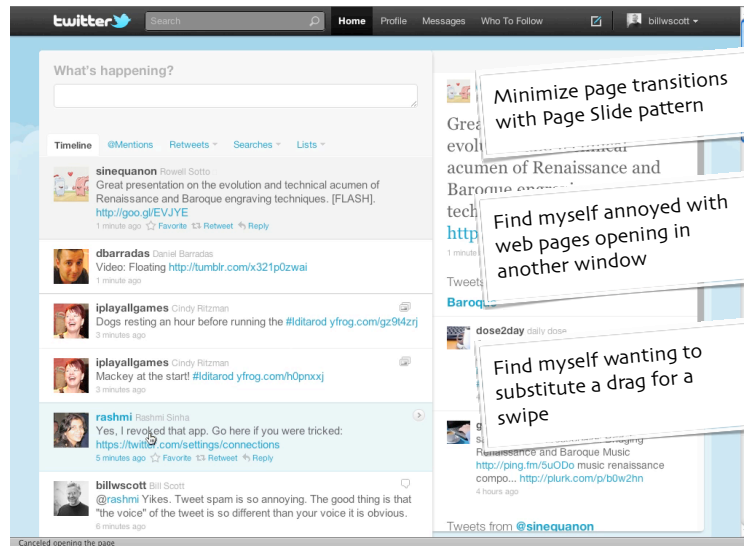


Navigate to other areas using smooth transitions (make flow visible)

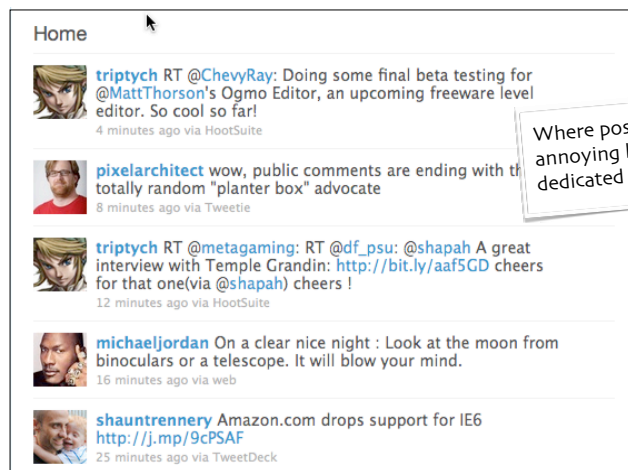
Anti-Pattern: breaking the flow with menus & popouts.

Rethink desktop apps to use real estate more creatively

# Twitter as Web App



## Vs Hover & Cover



Where possible replace annoying hover details with dedicated detail panes

# 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**



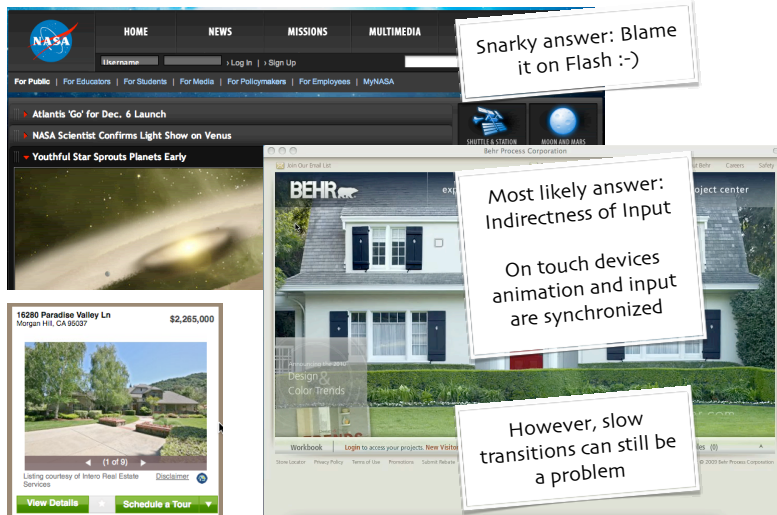
What can be done with less is  
done in vain with more.

- Occam

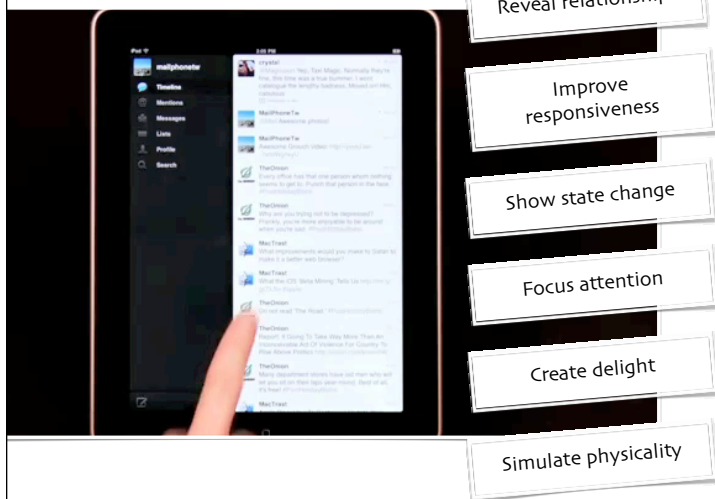
Make all visual distinctions as  
subtle as possible, but still clear  
and effective.

- Tufte "Smallest Effective Difference"

## Web Apps Seem Prone to This

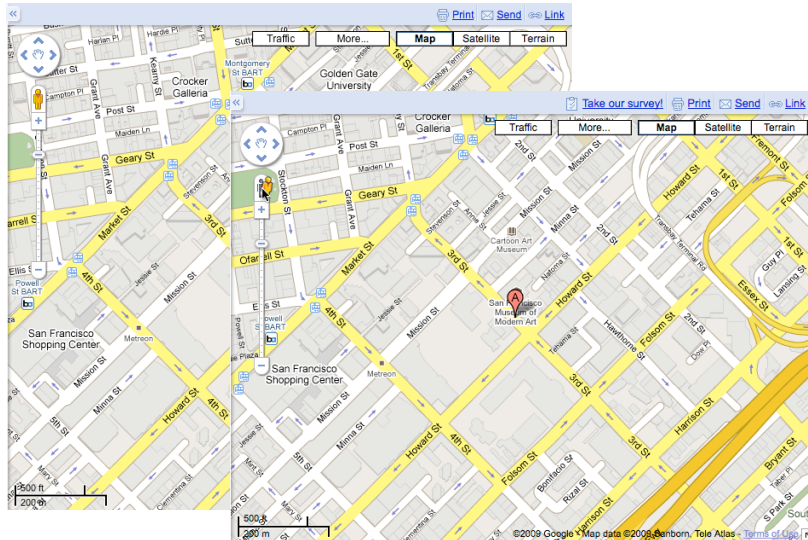


## Animation Can...



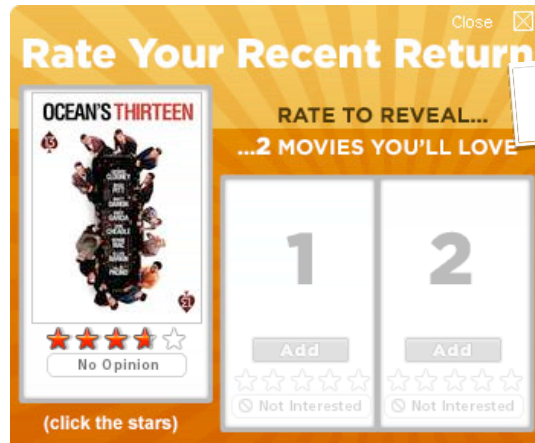
# Use Invitations to Create Responsiveness

## Just in Time Invitations at Drag Moments



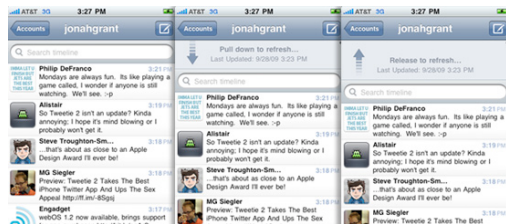


## Invitations at Reward Moments

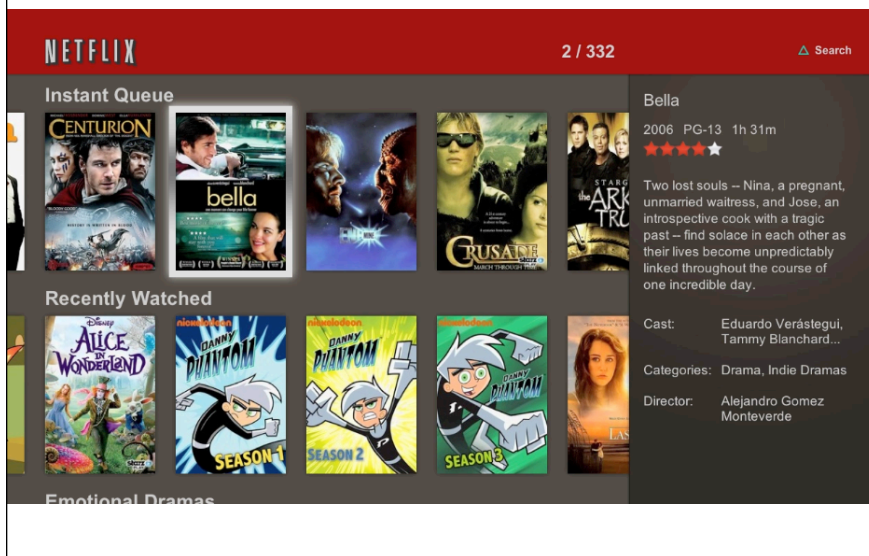


Major source of  
obtaining ratings

## Mobile Invitations at Touch-Hold Moments

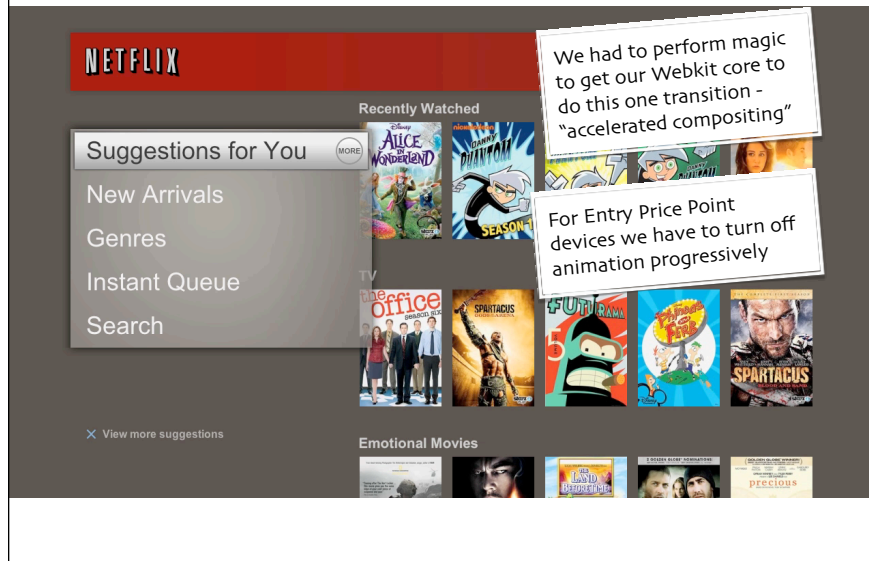


## Content as an Invitation



**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...

**NETFLIX**2 / 332Search

**Instant Queue**



**Recently Watched**



**Emotional Dramas**

**Bella**

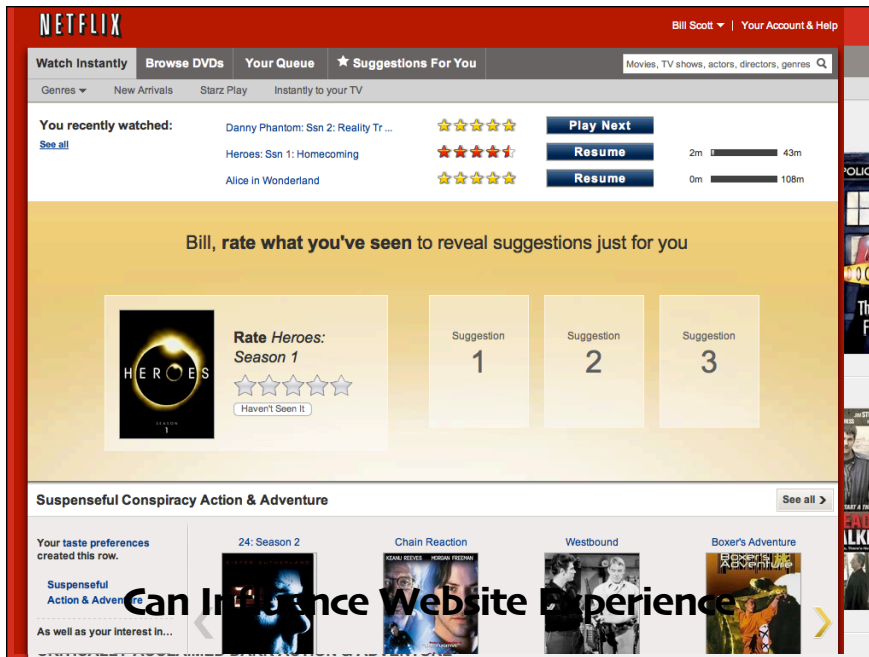
2006 PG-13 1h 31m  
★★★★★

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/aol](http://billwscott.com/share/presentations/2011/aol)

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

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<http://oreil.ly/dwivideo>

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<http://www.flickr.com/photos/lalegranegra/4722576618/>  
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<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>