



Google
Developers



Bring your App to the Big Screen

TV Design 101

Ossama Alami – Developer Relations

Michael Sundermeyer - UX Director, Google TV



What is Google TV?

Android, optimized for TV

Google Chrome

Google Services

Live TV Integration



The story so far

- Launched major update in October
 - Simplified UI
 - Improved search and browse
 - Improved YouTube experience
 - Android apps & Google Play store



New Google TV Devices

- **ARM** processor
- Available in USA and **Internationally**
- Check them out in the **Google TV Lounge**



Sony



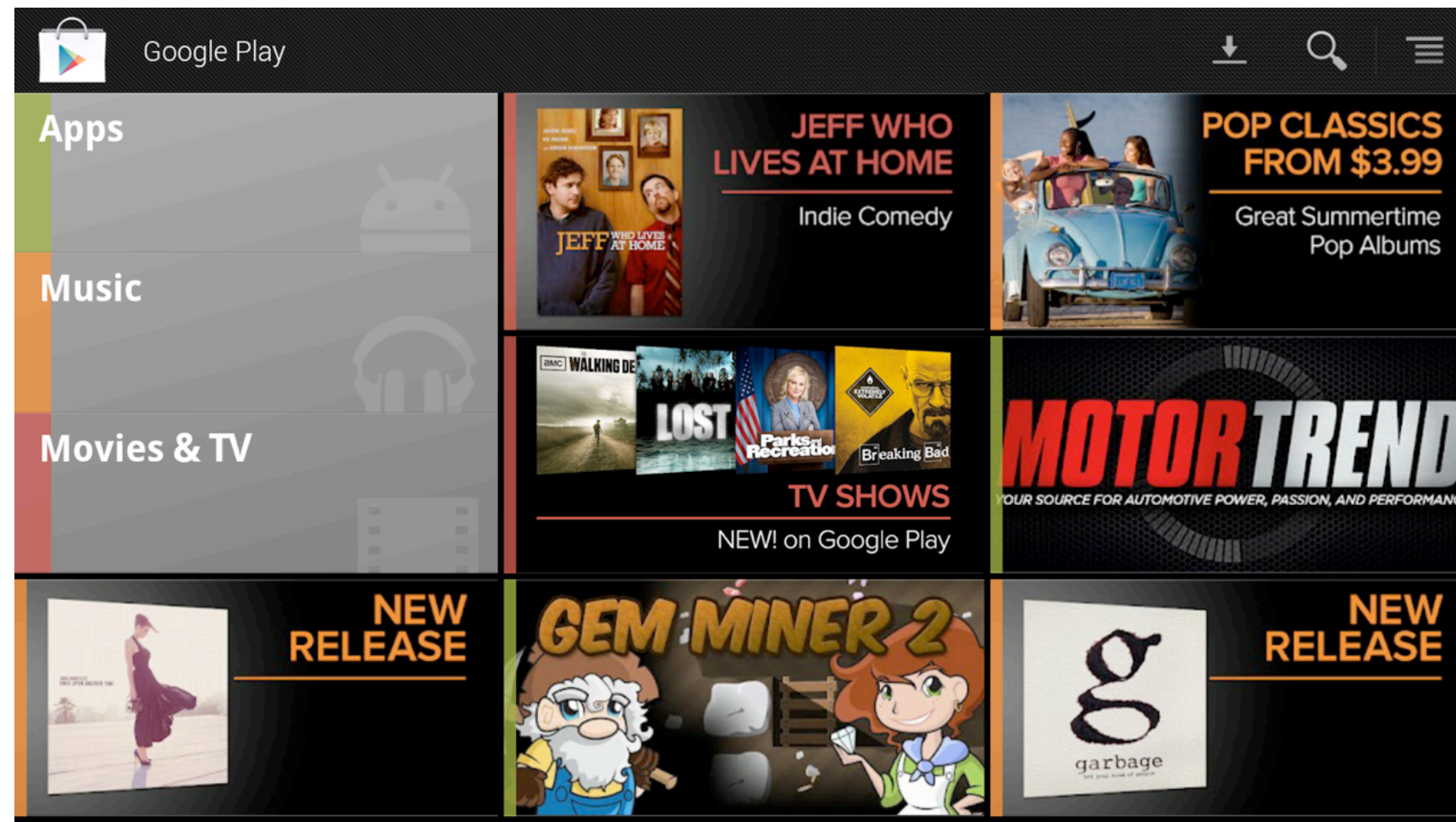
Vizio



LG

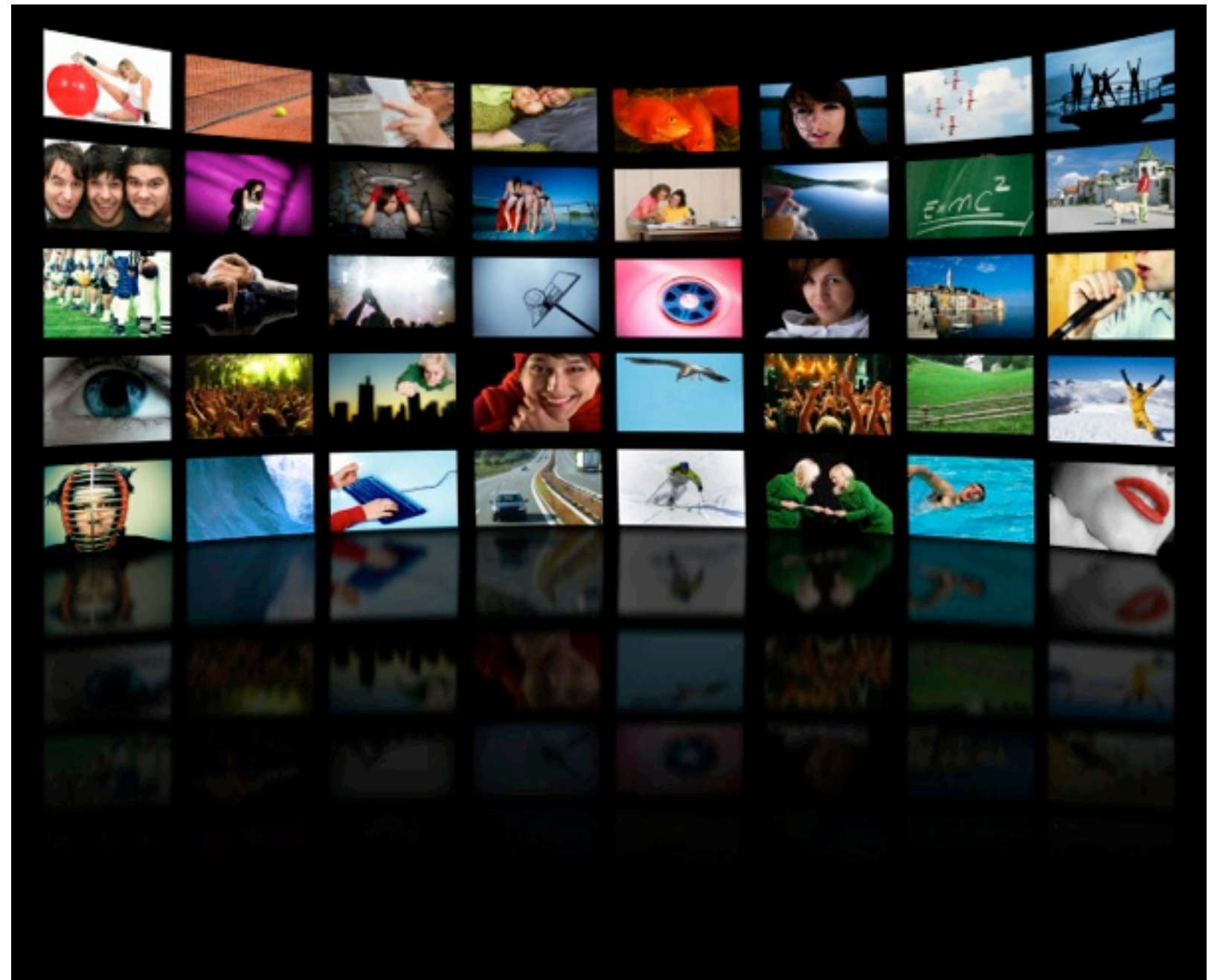
Updated Google Play Store

- New version of Google Play Store for Google TV
- Subscription billing support
- Ability to purchase music, movies and TV shows directly from Google Play



Content & Video Playback

- Get your Content on Google TV, 1:30pm, Room 6
 - Video & Audio Playback
 - Streaming Media
 - DRM



Multi Screen Applications

- Command and Control in the Living Room - Building Second Screen Apps for Google TV, 2:45pm, Room 1
 - Building Multi-Screen and Second Screen applications



The pitch - lots of viewers

*In the US, homes have an average of
2.5 people and 2.93 TV sets*

The Nielsen Company: Television Audience Report, 2010

*In the US, **292 million** people
watch on average **5 hours of
TV per day***

The Nielsen Company: Three Screen Report, 2010



The pitch - continued growth

*By 2015 over **500 million connected TVs** will have shipped and connected TVs will account for **47% of all flat panel TVs shipped.***

DisplaySearch: Quarterly TV Design and Features Report, Q2 2011



The pitch - potential

- Connected TV usage is increasing
- Users are becoming accustomed to accessing the content they want on many different devices
- Reach and delight users when they're looking to be entertained
- Google TV is an open apps platform for developers to tap into this growth



Build Apps: Google TV Users



Develop for TV



Build a Android app
Distribute on Google Play



Develop for TV



Build a Web app
Accessible through Google Chrome



Design for TV



TV is Evolving: Big Smart Interactive



Applications



Interaction



Design



Big Screen



Layout



Make it Great

Big Screen

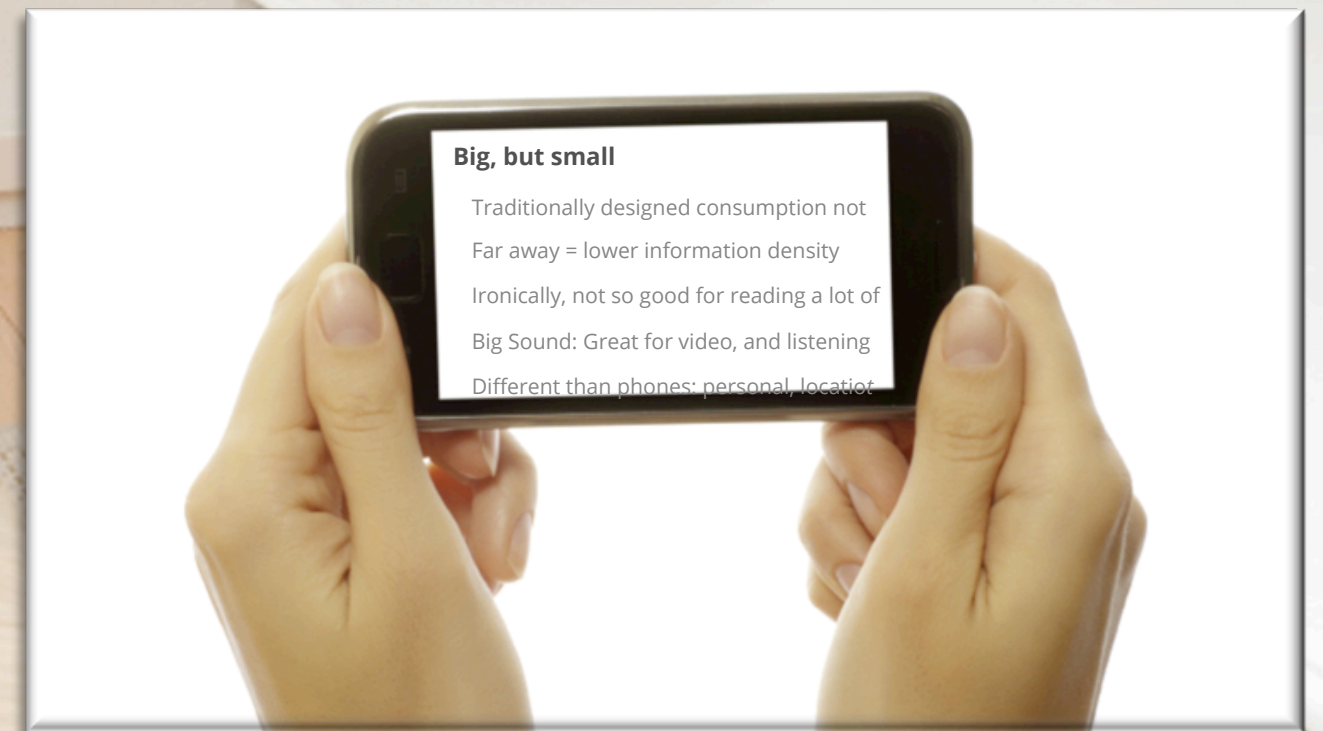
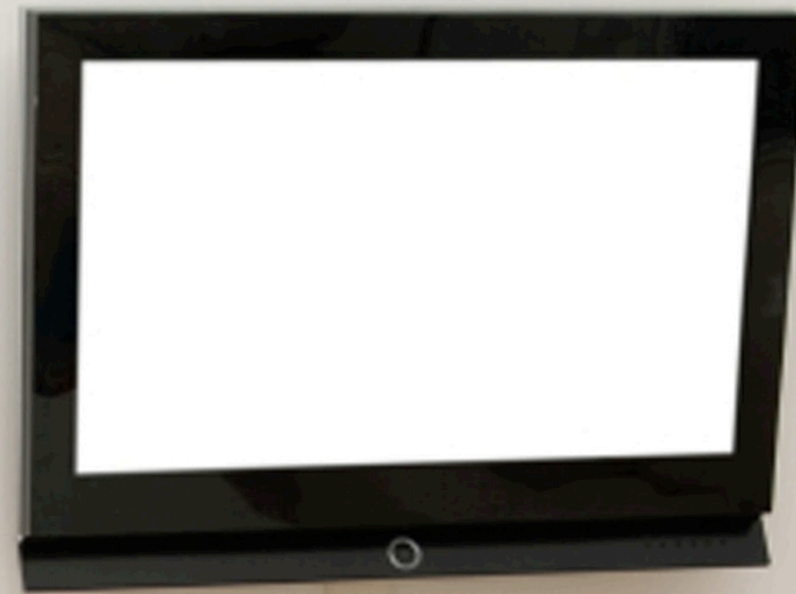


Big



...but small

- < TEXT
- < Information density
- < Interaction
- Not just a big Tablet => more like a PHONE



Social

SHARED EXPERIENCE

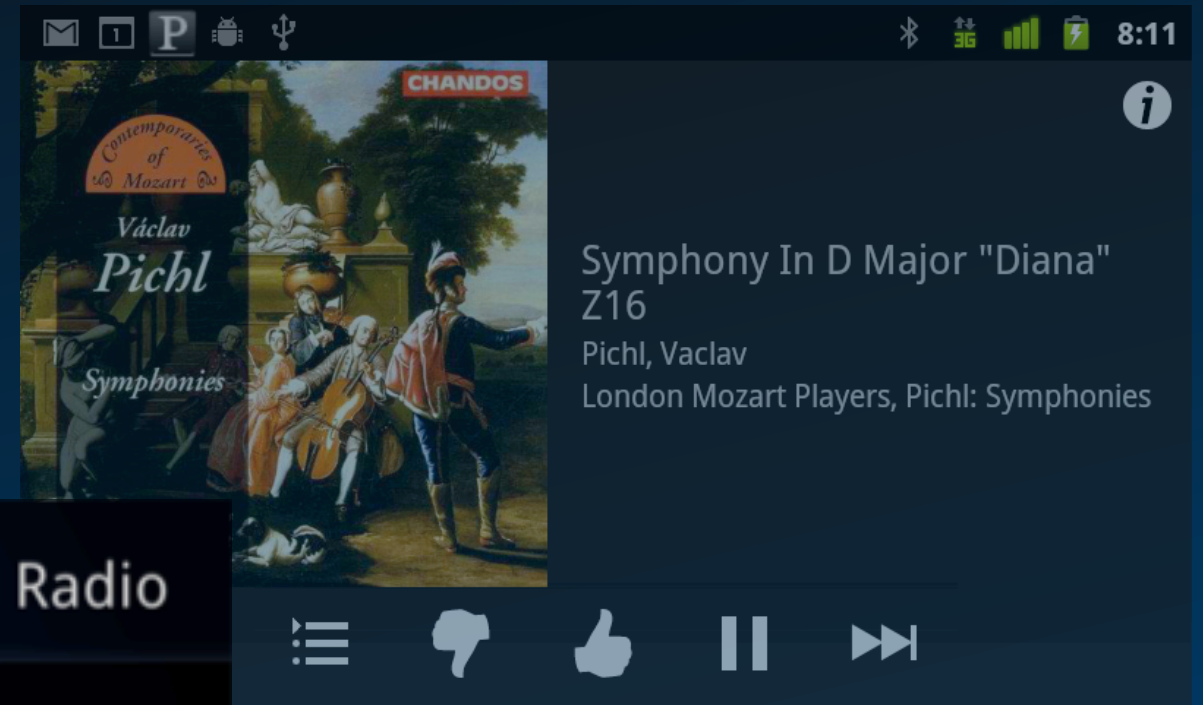
- Entertainment > Work
- Games, learning, exploring, music, shared experiences
- Privacy considerations
- Consider multi-user

Applications

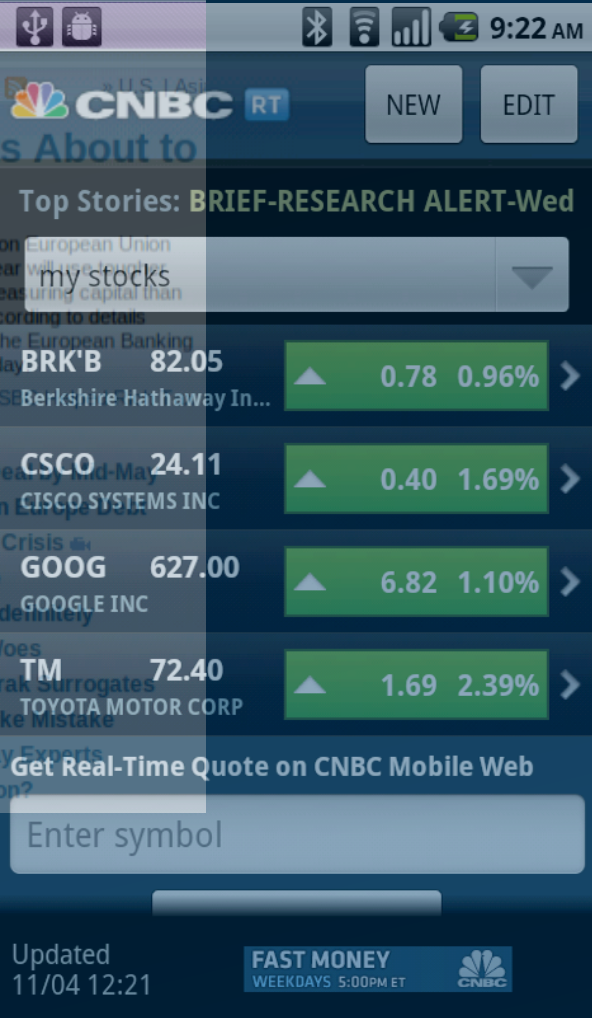
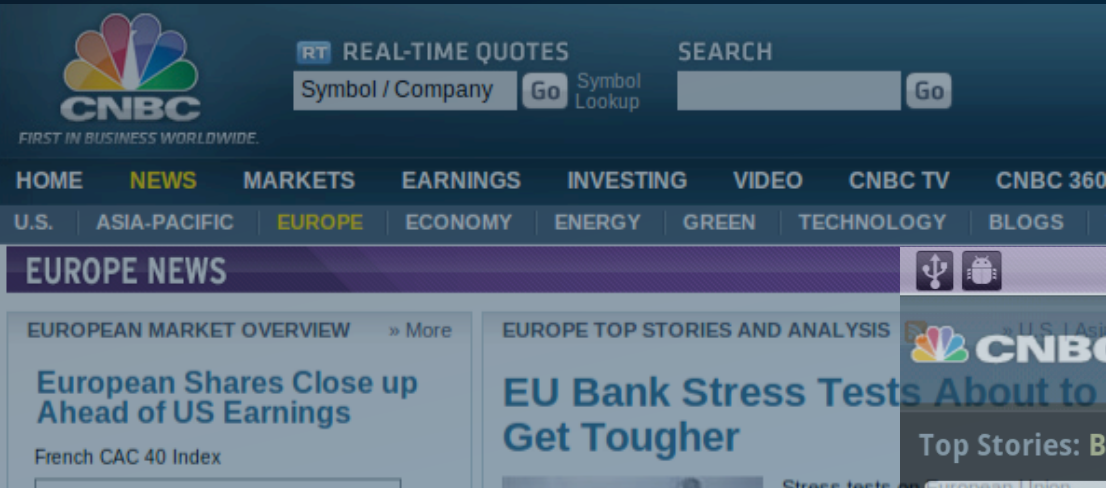


Pandora

Similar design for TV and mobile



Strengths of each device



Flixster

Simplified for TV

Movie Title	Rating
Rock of Ages	31%
That's My Boy	-
Madagascar 3: Europe's Most Wanted	77%
Prometheus	74%
Snow White and the Huntsman	48%
Men in Black III	69%
Marvel's The Avengers	93%
The Best Exotic Marigold Hotel	77%

After Stevens (Jake Gyllenhaal) wakes up in the body of an unknown man, he remembers a Chicago commuter train. In an assignment unlike any he's ever experienced called the "Source Code," a program that enables him to cross minutes of his life. With a second, much larger target threatening to kill the incident over and over again, gathering clues each time, until he can find and prevent the next attack. Filled with mind-boggling twists and heart-pounding action-thriller directed by Duncan Jones (Moon) also starring Michelle Monaghan (Up in the Air, The Departed), and Jeffrey Wright (Quantum of Solace), Source Code is a Science Fiction & Fantasy



Interaction



D-Pad



D-Pad Tips

- “Lean back”
- No-look navigation
- Highlight and Select



Cursor

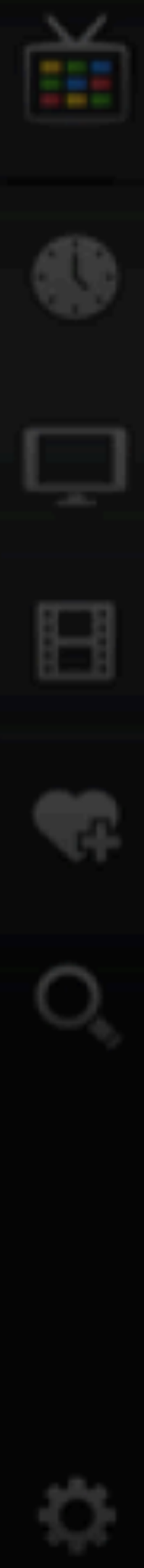


CursorTips

- Cursor != Touch
- Accelerate nav
- Low-twitch
- BIG hit targets



Navigation



A horizontal row of five content tiles. The first tile on the left has a green location pin icon with the letter 'A' on top. A blue line starts from this pin, moves horizontally to the right across the top of the first three tiles, then turns vertically down to the top of the third tile in the row below. The tiles contain text and a play button icon.

DRAMA

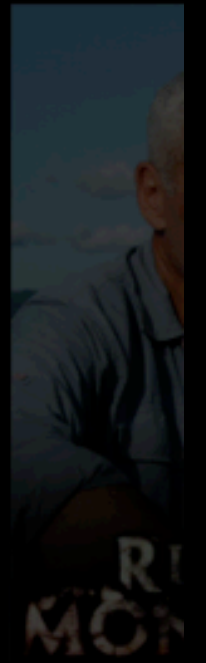
A horizontal row of five content tiles under the 'DRAMA' section. A blue line continues from the top of the third tile in the row above, moves vertically down to the top of the third tile in this row, then moves horizontally to the right across the top of the last three tiles. The final tile on the right has a green location pin icon with the letter 'B' on top. The tiles contain text and a play button icon.

NEWS

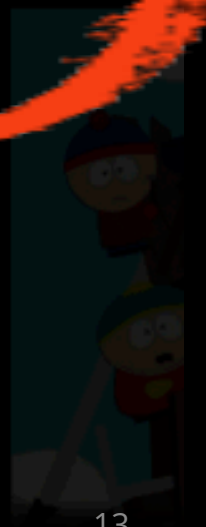
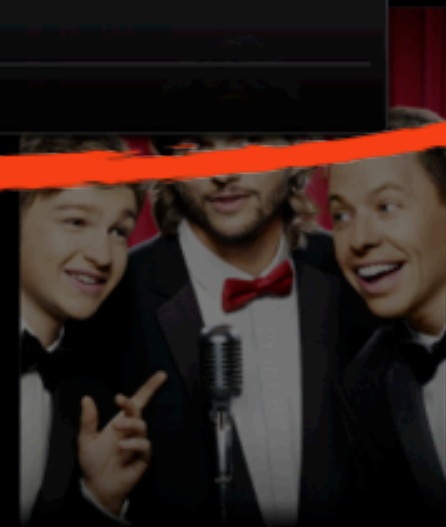
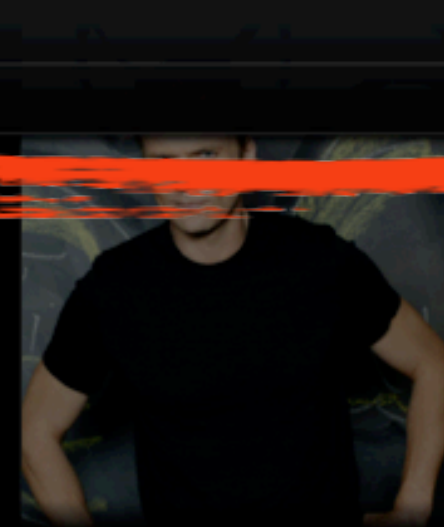
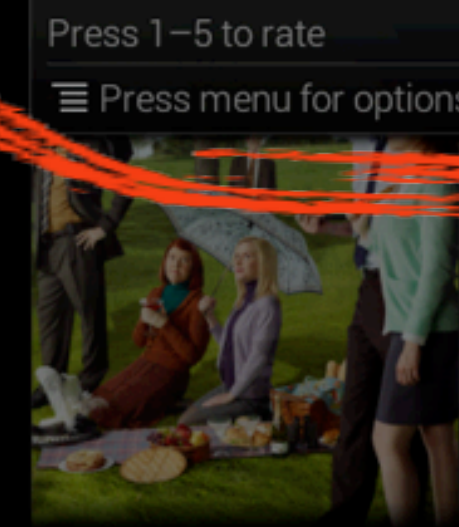
Selection and Focus



Trending This Week



Comedy



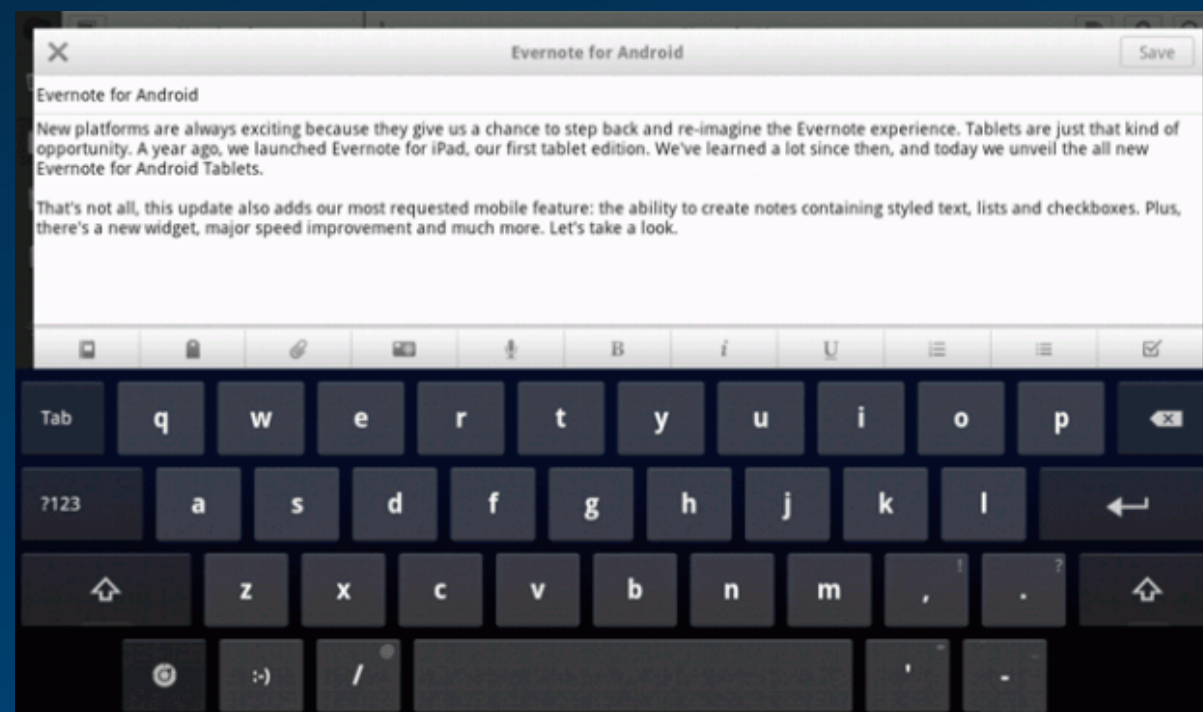
How to Be a Gentleman (2011-Present)
Andrew Carlson (David Hornsby) has so immersed himself in his weekly etiquette column that he seems to have lost touch with modern society...
Press 1-5 to rate
Press menu for options

Keyboards



Keyboard Tips

- QWERTY this gen
- Optional next gen
- Support OSK



Multi-screen Experiences



Design



MY LIBRARY

- Songs
- Artists
- Albums
- Genres

AUTO PLAYLISTS

- Thumbs up
- Recently added
- Free songs

INSTANT MIXES

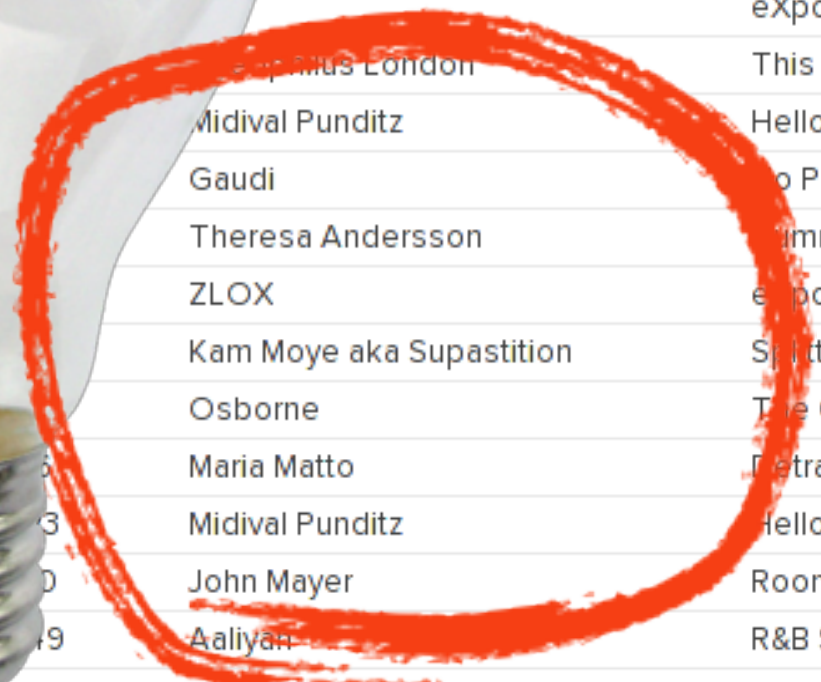
- Day of the Weird Beginning (2010 Clean Mix)
- Rally Rasser Good Mix
- Rosa (Rodney Hunter Version)

PLAYLISTS

- June 6, 2011

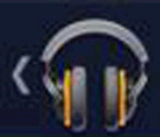
ROSA (RODNEY HUNTER VERSION) MIX

NAME	ARTIST	ALBUM	PLAYS	RATING
Don And Sherrin (Original Mix)	Matthew Dear	Don And Sherrin		
What Happened To TV?	The Greyboy Allstars	What Happened To Television?	1	
Rally Rasser Good	Matthew Dear	Ghostly By Night		
Last Words (Radio Edit)	Real Tuesday Weld	Last Words (Radio Edit)		
Back to Baiai		No Prisoners		
Anything I'm Not		Lenka		
Accusations	Juan Maclean	The Future Will		
Day of the Weird Beginning (2010 Clean Mix)		eXpo		
TNT	Populus London	This Charming		
Atomizer	Midival Punditz	Hello Hello		
Serious Ting	Gaudi	No Prisoners		
Birds Fly Away	Theresa Andersson	Hummingbird,		
Song of Night	ZLOX	eXpo		
Splitting Image (feat. Neenah)	Kam Moye aka Supastition	Splitting Image		
Outta Sight (Luke Vibert Remix)	Osborne	The Ghostly Re		
Mira La Luna	Maria Matto	Detras Del Am		
Drifting	Midival Punditz	Hello Hello		
Your Body Is A Wonderland	John Mayer	Room For Squares	0	
At Your Best You Are Love	Aaliyah	R&B Slow Grooves	0	
I Wish I Wasn't	Heather Headley	Dance Vault Mixes- I Wish I Wasn't	0	
Little Secrets	Passion Pit	Manners	0	
Deception	Blackalicious	Nia	0	
Moth's Wings	Passion Pit	Manners	0	



Design Tips

- Fonts >= 16 pt
- Info density
- No white bgs
- #F1F1F1 not WHITE
- Avoid orange/red
- Images > Text



Now playing

Easier on the Eyes

- SONG
+ **Can't You Tell**
- ARTIST
→ **Vetiver**
- ALBUM
→ **Errant Charm**



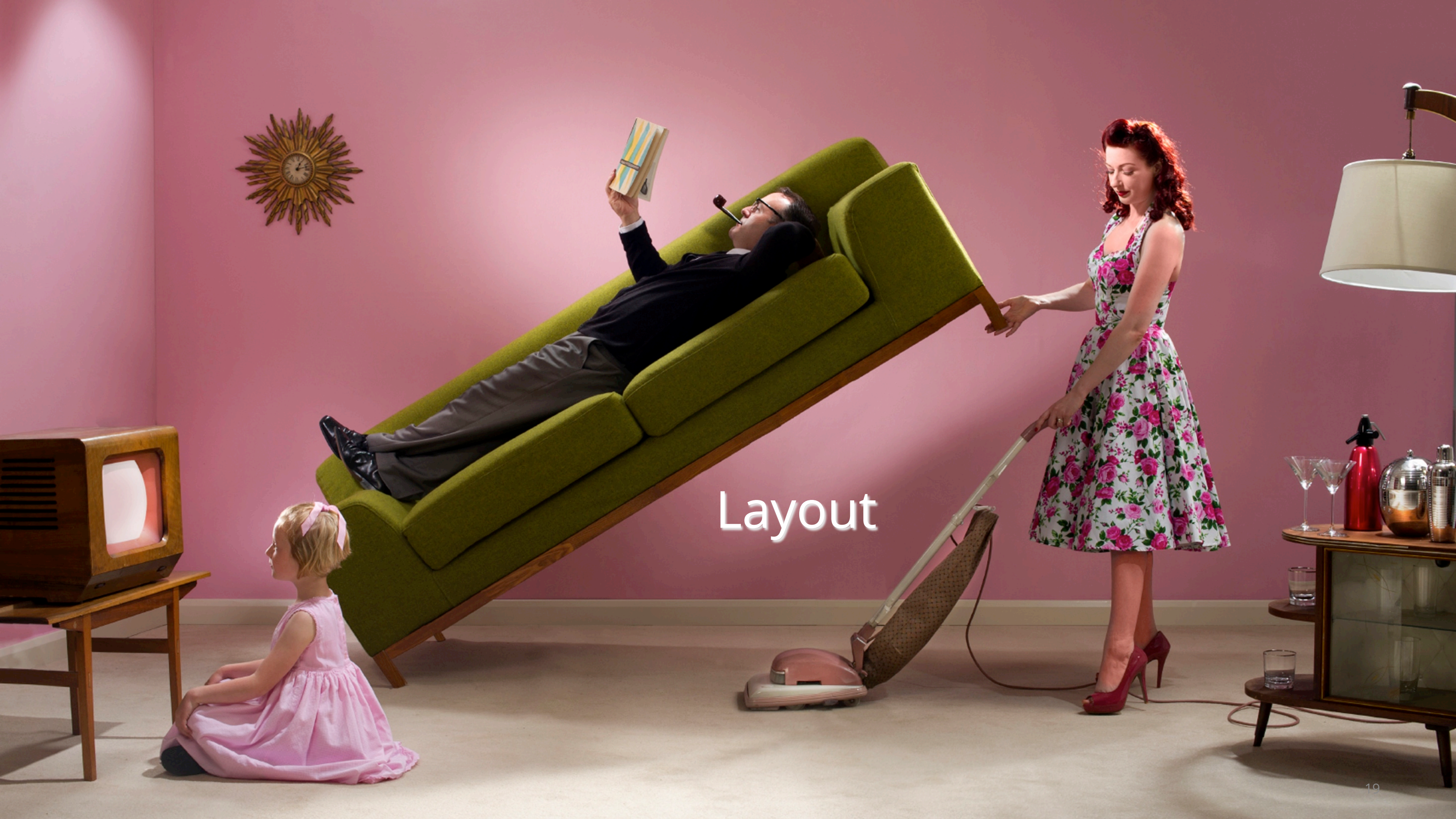
Design Tips

- Dark gradient BG
- BIG icons, fonts
- Image-centric
- Less chrome, lines
- Content breathes

1:26

4:25





Layout

So, let's take a simple UI...



Hawaii 2008



Stratford, ON



Appalacia 2008



Savannah, Georgia



Kuala Lumpur, Ma...



Koya, Japan



Australia



Himeji, Japan



Kyoto, Japan



New York City



Yoshino, Japan



Toronto, Canada



Himeji, Japan



Kyoto, Japan



Singapore



And put it on an old-fashioned TV...



Tube TV's weren't perfectly rectangular...



Overscan



Hawaii 2008



Stratford, ON



Malacca



Savannah, Georgia



Kuala Lumpur, Malaysia



Koya, Japan



Australia



Himeji, Japan



Kyoto, Japan



New York City



Kyoto, Japan



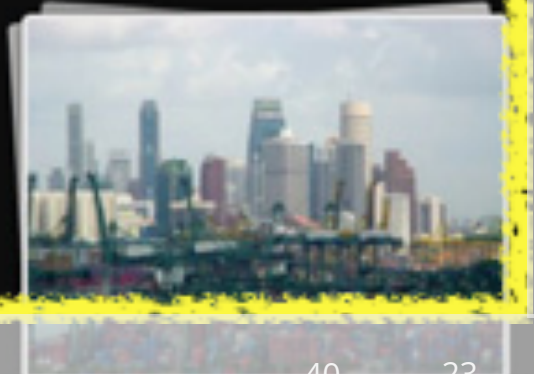
Toronto, Canada



Himeji, Japan



Kyoto, Japan



Singapore

Top-left justify, use flexible layouts



Hawaii 2008



Stratford, ON



Appalacia 2008



Savannah, Georgia



Kuala Lumpur, Ma...



Koya, Japan



Australia



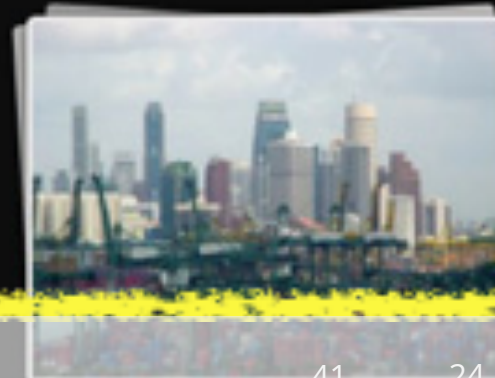
Himeji, Japan



Kyoto, Japan



New York City



To 1080p or NOT to 1080p?

	LDPI (Low Density) ~120 DPI	MDPI (Medium) ~160 DPI	HDPI (High Density) ~240 DPI	XHDPI (Extra High) ~320 DPI
Small Screen	QVGA (240x320)			
Normal Screen	WQVGA400 (240x400) WQVGA432 (240x432)	HVGA (320x480) HTC-G1	WVGA800 (480x800) WVGA854 (480x854)	
Large Screen		WVGA800* (480x800) WVGA854* (480x854)	TV 720p (1280x720) 213 DPI (TVDPI)	TV 1080p (1920x1080) 320 DPI
Extra Large Screen		WXGA (1280x800) Xoom Tablet		



Layouts – Basic Zone Pattern

1

global

2

contextual

3

content

The Godfather-in-Law

2h 55m

Crime Drama | 1972

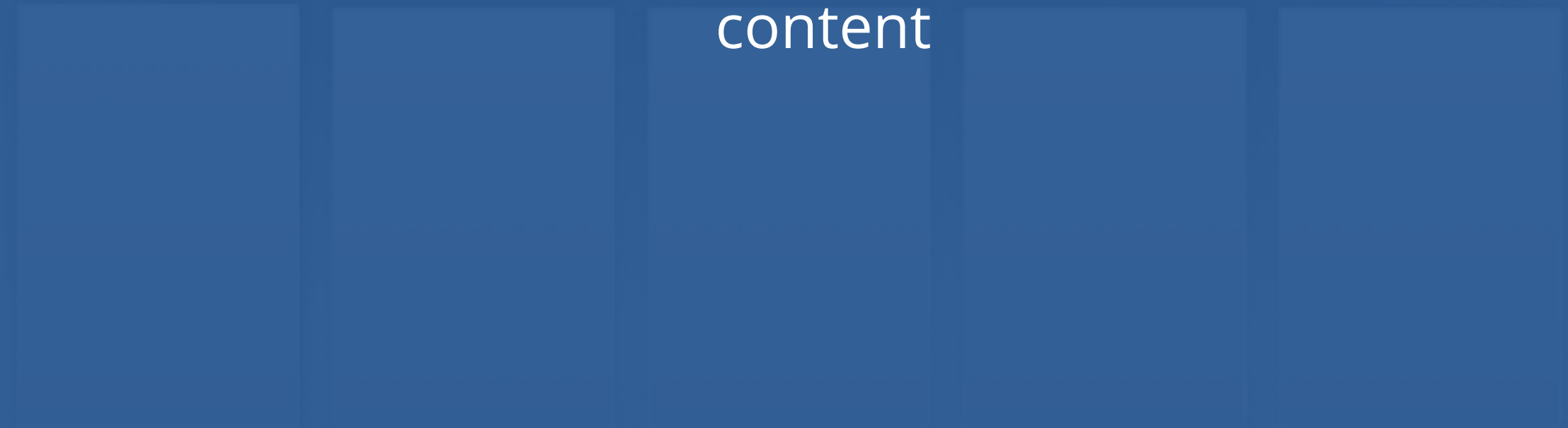
Director: I. M. Director

Starring: J. Actor, C.O. Star

Quisque tellus dui, pharetra vitae consequat in, hendrerit at odio. Vestibulum id vehicula enim. Integer et mi ante, et accumsan sem. Nulla viverra ipsum in purus dictum luctus. Cras id nisl vel justo bibendum pretium id lacinia erat. In hendrerit tempor augue. Praesent egestas nisl a magna viverra rhoncus eget non felis. Praesent consequat tortor ut orci feugiat vitae fermentum quam

Show More ▼

Related



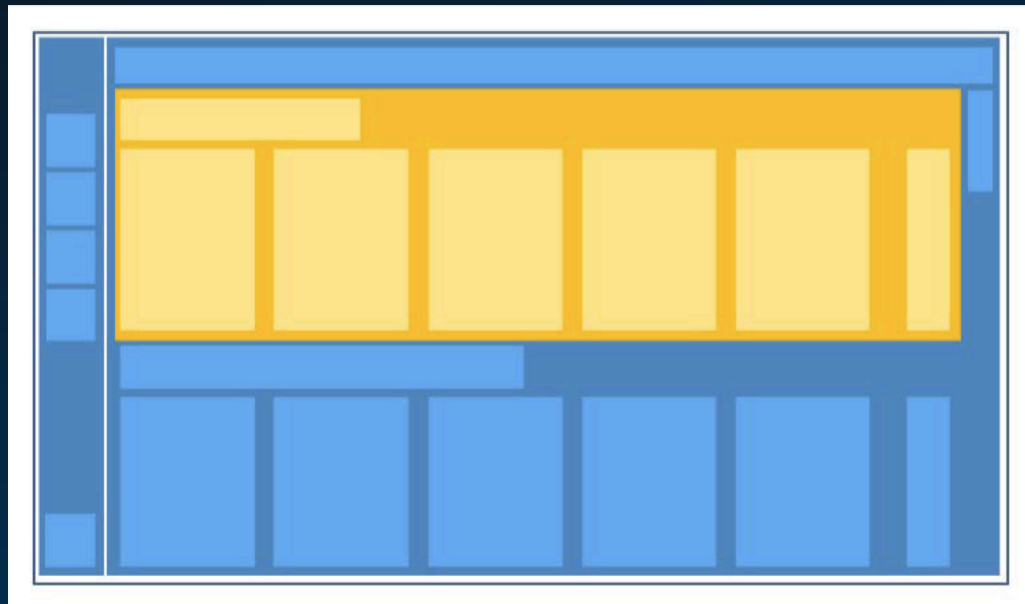
Search Google

IMDB

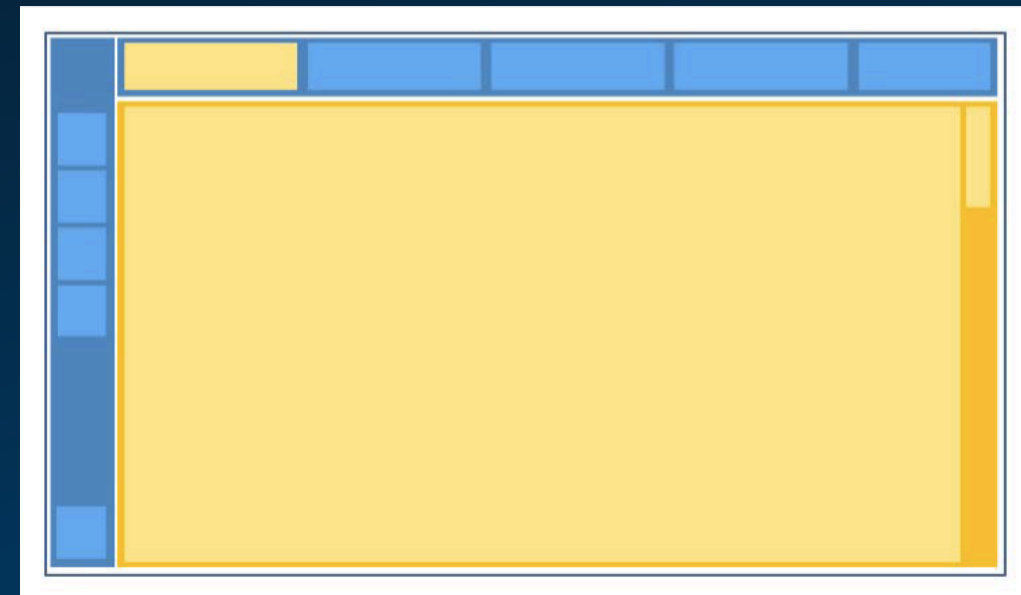
Wikipedia



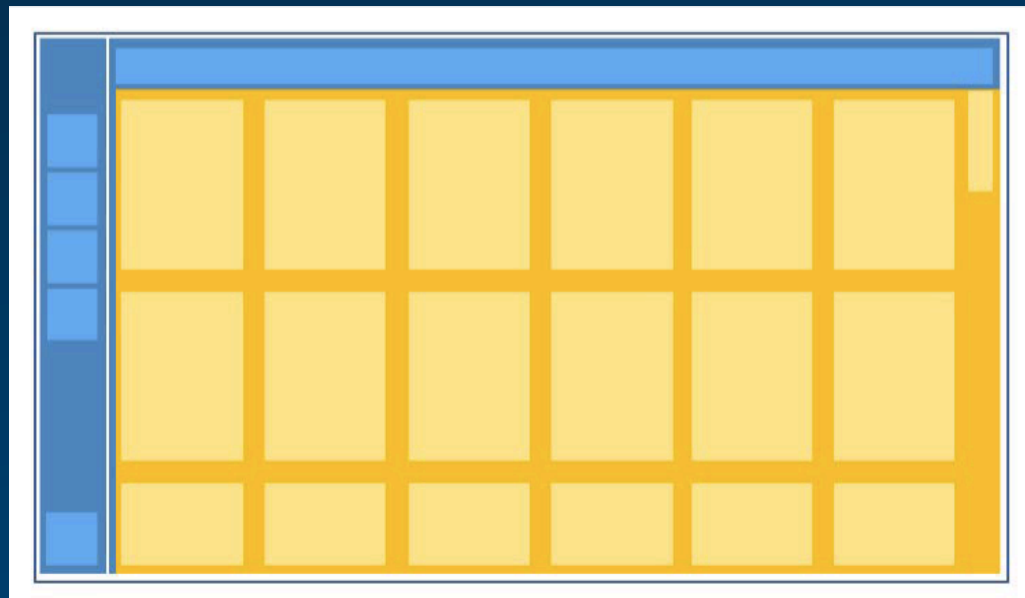
Layouts – Common TV Patterns



Shelves



Tabs



Grid



List



Beware: D-Pad Interaction Traps



Make it Great

If ONLY there were a recipe book
for GREAT EXPERIENCES...





MAKE
MORE
MAGIC



Turn the pages
for yummy
RECIPES AND UI TIPS
from the Geniuses at
EXPERIENCE-R-US!

[get recipes >](#)

1. Content is King

Technique: “Design the content, not the UI”



Curated by



more...

sundy

“ Compelling, but shed the fossil hybrid plant and you could do 0-60 in 3 with pure electro-badass muscle...”

community gallery

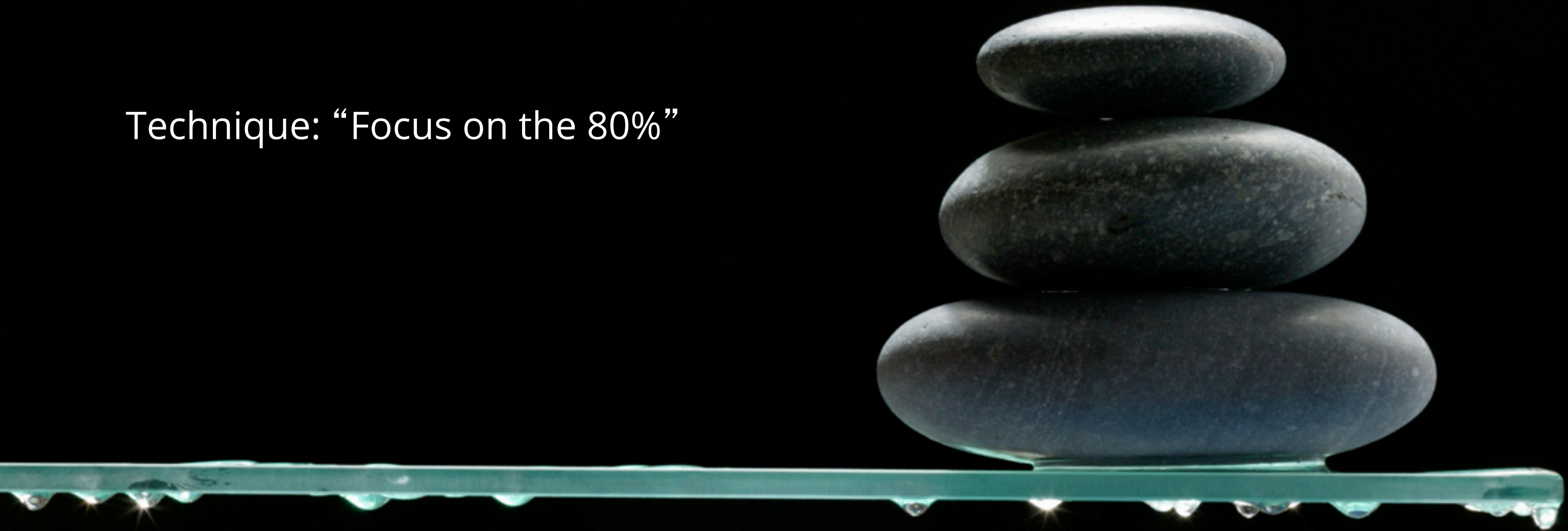
Fast Lane Daily - BMW Vision

0:42 / 2:52



2. Less is More

Technique: “Focus on the 80%”





ON TV

▶ Time: **On Now** Quality: **All**

BEFORE...

7:44 PM



COMEDY



Family Guy
North by North Qua
16 mins left



Seinfeld
The Little Kicks
16 mins left



The Office
Broke
16 mins left



Curb Your Enth
The Safe House
16 mins left



Funny or Die Pre
16 mins left

DRAMA



CSI: Crime Scen
Slaves of Las Vegas



True Blood
I'm Alive and on Fire



Bones
The Witch in the Wa



Without a Trace
Closure



Adventure Time





the office

tosh.0



COUGAR TOWN



2:33 PM

STORA
TE

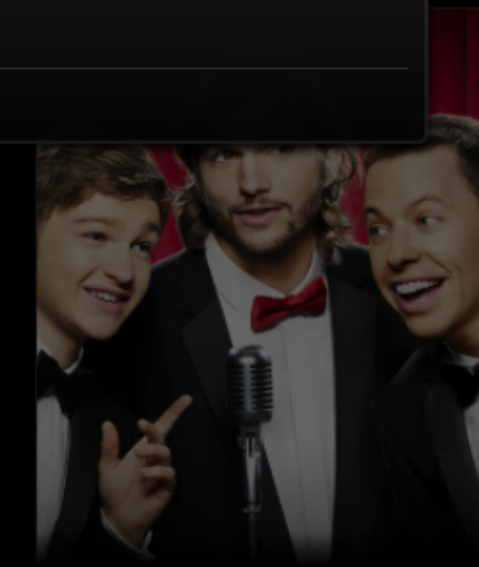
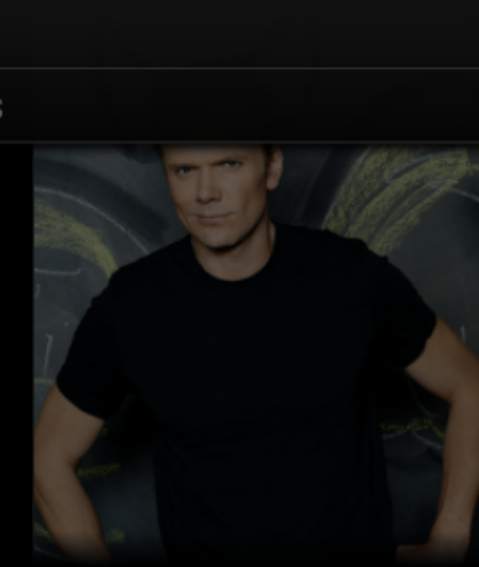
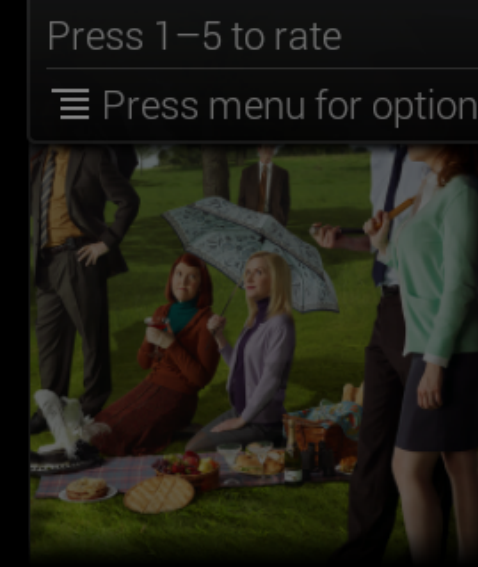
AFTER



Trending This Week



Comedy



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 Press 1-5 to rate
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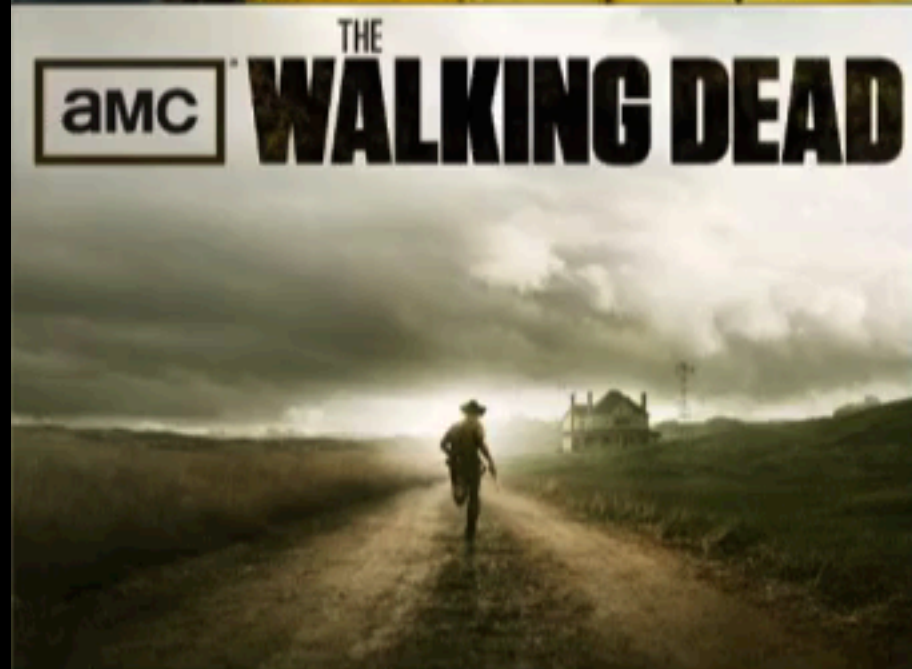


3. Movement has Meaning



Technique: “use physicality to create a mental model of where things ‘live’ and ‘go’
”



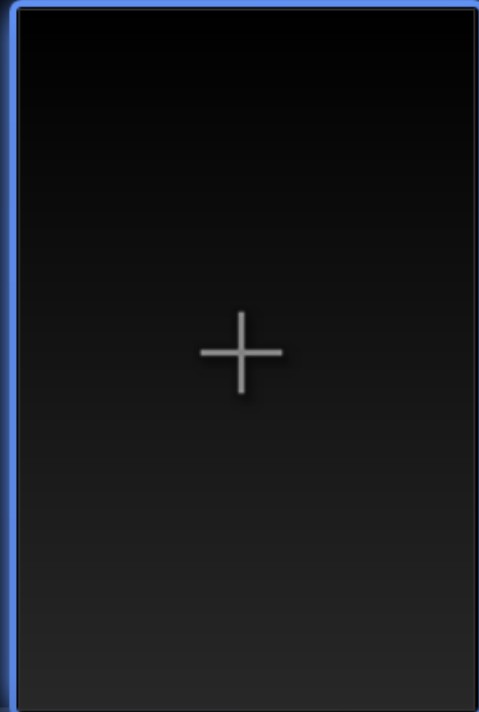
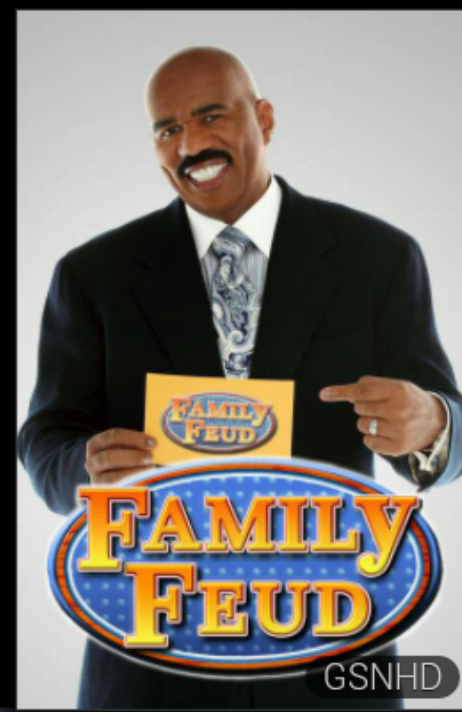
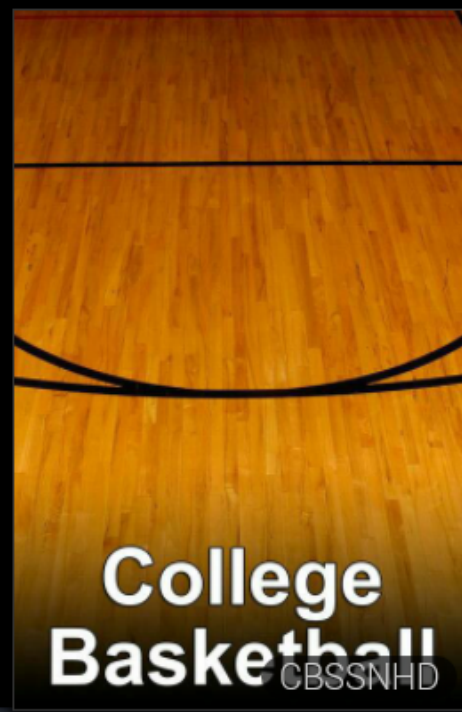


A vibrant concert scene with a crowd of people raising their hands in the air, illuminated by bright stage lights. The image is dominated by warm, golden-yellow light from the stage, creating a sense of energy and excitement. The crowd is silhouetted against the bright background, with many hands raised in various gestures, some pointing upwards. The stage lights are visible as a series of bright spots at the top of the frame, casting beams of light down onto the audience.

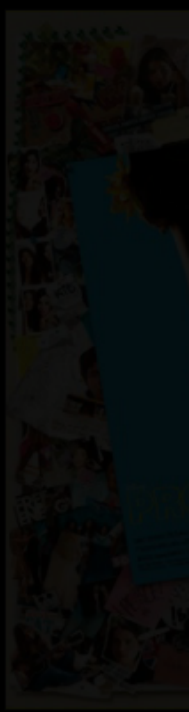
4. Make it Personal

Technique: “The 10th experience should be better than the first”

Favorite Channels



Movies on TV



5. Surprise and delight



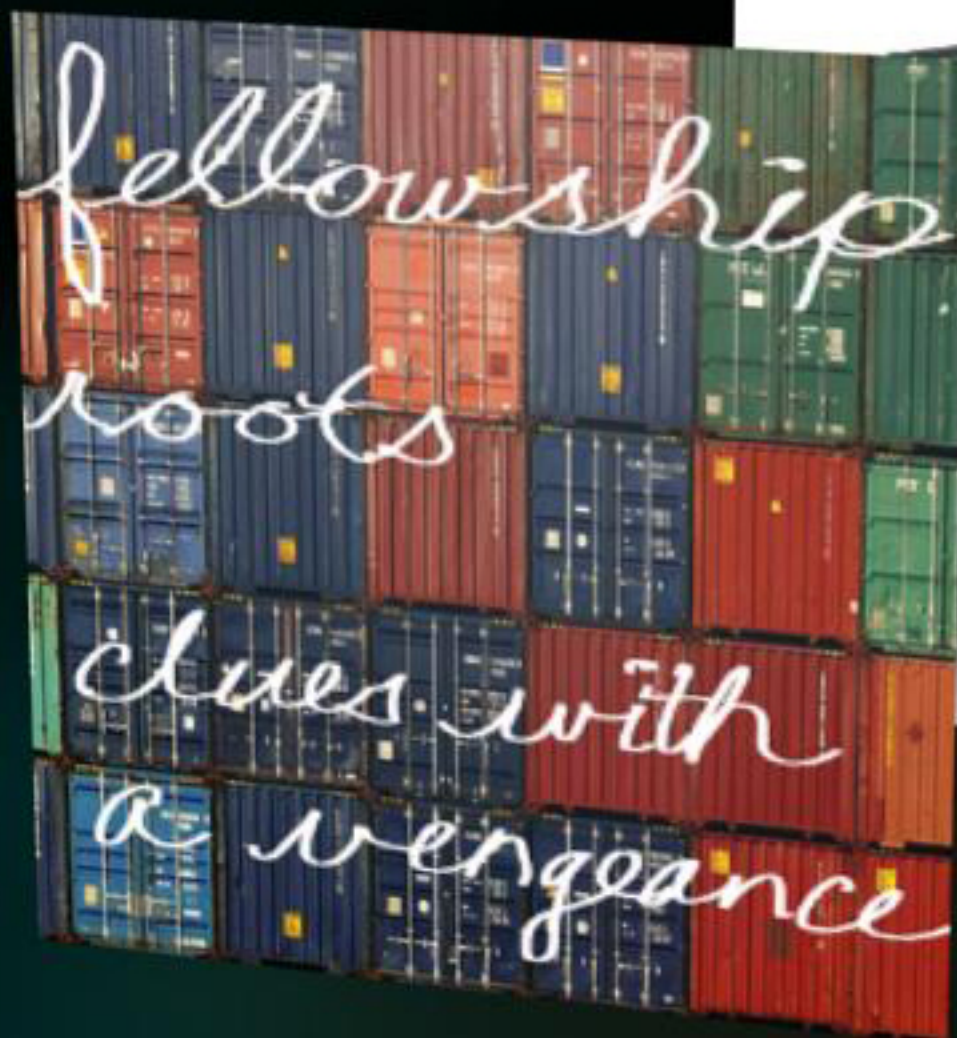
Technique: “Jewel in the Warehouse”



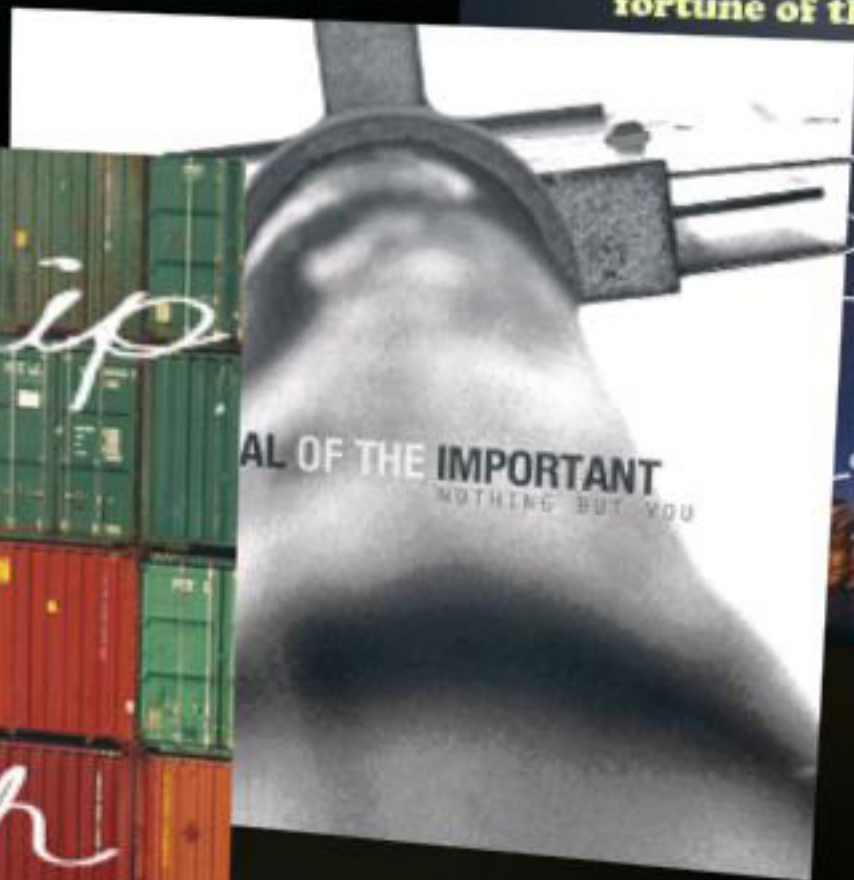
Boxed Tricks
Hologram Of The Anti Zomble



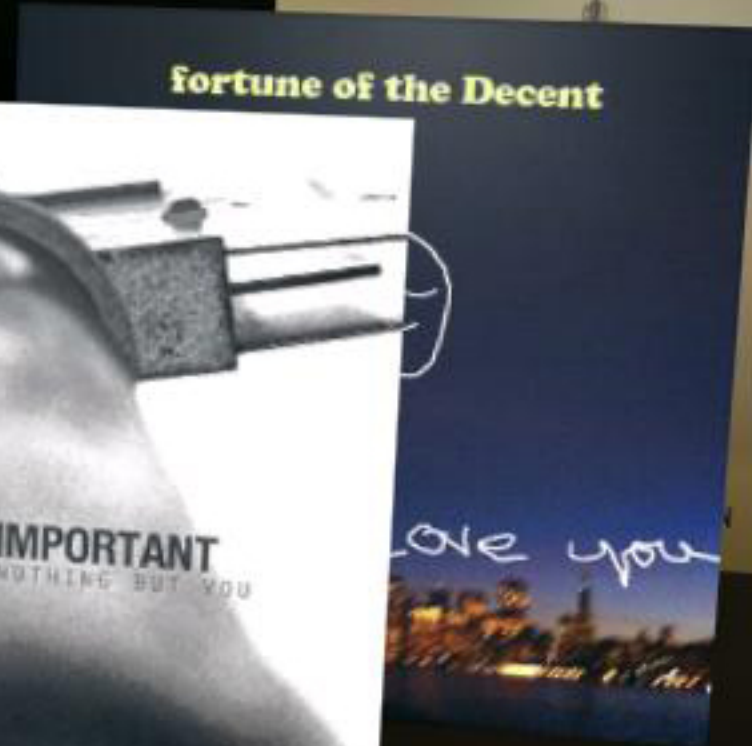
Clues With A Vengeance
Fellowship Roots



Nothing But You
Loyal Of The Important




Feelings Love You
Fortune Of The Decent



fortune of the Decent





6. Create an Experience, not a UI
Technique: “Look through the Windshield”





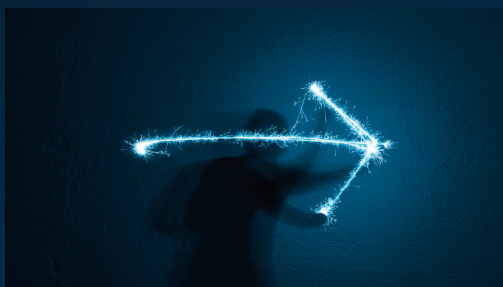
Summary - Make it Great



1. Content is King
“design the content, not the ui ”



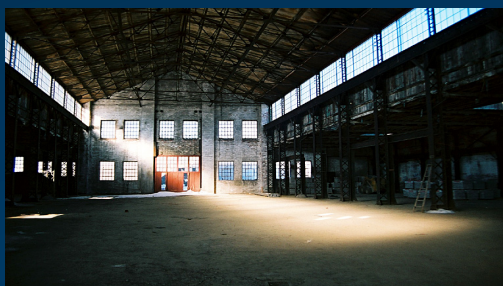
2. Less is More
“focus on the 80%”



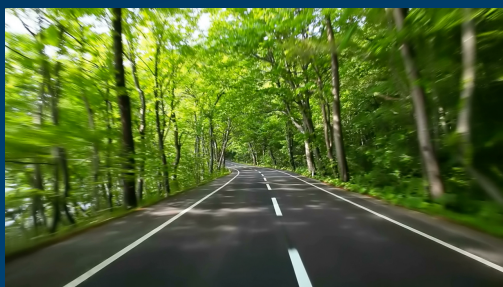
3. Movement has Meaning
“use physicality to create a mental model”



4. Make it Personal
“the 10th experience should be better than the first”



5. Surprise and Delight
“jewel in the warehouse”



6. Create an Experience, not a UI
“look through the windshield”

designers.
they're not just for decoration.



<Thank You!>

The design guidelines referenced in this talk can be found here:

<http://goo.gl/NZwU6>

oa@google.com

sundy@google.com



SONY
make.believe

sony's google TV all access party

Tonight, Thursday June 28th. 7:30pm

Terra Gallery

511 Harrison Street (at First Street)
San Francisco, CA 94105

Bring your Google I/O badge for admission.

Google TV 



Free

Sony Internet Player
with Google TV to
the first
500 people.

Join us for
cocktails and
appetizers.





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