ORGANIZING MOBILE WEB EXPERIENCES

@lukew

EXTENSION LEARN  LUKE WROBLEWSKI
378K iPhones sold per day
562K iOS devices

371K Babies born per day

1M Android devices activated per day
200K Nokia smartphones
143k Blackberry devices

Source: http://tnw.co/yUafAx
Share of Personal Computing

MOBILE

6B connections today

10B connections in 2016

26X worldwide traffic growth

THE WEB IS NOT PRINT.
MOBILE IS NOT A DESKTOP PC.
Big Screen
Power Supply
Consistent Network
Keyboard
Mouse
Chair
Desk
Small Screen

Battery

Inconsistent Network

Fingers

Sensors
WHERE ARE WE MOBILE?

84% at home
80% during misc. times
74% waiting in lines
64% at work

EVERYWHERE & ANYWHERE

Photo by Steve Rhodes
When are we mobile?

Mobile 3G Traffic Patterns

“...copy, extend, and finally, discovery of a new form. It takes a while to shed old paradigms.” -Scott Jenson

Source: http://oreil.ly/w1INmt

Flickr Photo: by Gilles San Martin
MOBILE PURCHASES

$600M  2009
$2B    2010
$5B    2011
MOBILE

2X more likely to buy on mobile
2.5X more likely to subscribe
3X engagement on mobile

MOBILE

“We’re doing a complete relaunch [...] inspired by our mobile experience” -CEO Garrett Camp


800% mobile growth
ORGANIZATION

1. Mobile Behaviors
2. Content First
3. Navigation Elements
4. Clarity & Focus
Lookup/Find
Explore/Play
Check In/Status
Edit/Create
Check In/Status

Explore/Play
Check In/Status
Menu

Marketing

Recognized nationally as the #1 up-and-coming college in the Midwest, Adrian is a vibrant and forward-looking campus transforming its students into leaders and
“I was looking at the right side of the Venn diagram I thought, ‘That looks like a lot of the current and planned content for our mobile site.’ I think the only thing we don’t have are the admissions application.”
MOBILE FIRST

1. GROWTH = OPPORTUNITY
2. CONSTRAINTS = FOCUS
3. CAPABILITIES = INNOVATION
MOBILE BEHAVIORS

• Know what mobile is uniquely good at
• Adjust site organization accordingly
ORGANIZATION

1. Mobile Behaviors
2. Content First
3. Navigation Elements
4. Clarity & Focus
Navigation First, Content Second
Skip Intro
Minimal Navigation

Maximum Content
Minimal Navigation

Maximum Content
Kia ora lukew!
Now you know how to greet people in Māori.

Recent activity
Uploads from your contacts
Today's interestingness
Photos taken nearby
“In the new app, we present relevant content up-front and instantly notify users of new invitations and messages. In other words, we remove the friction of a dashboard and provide immediate value on app launch.”
Check In/Status

Navigation
Second
“Mobile users want to see our menu, hours, and delivery number. Desktop users definitely want this 1mb png of someone smiling at a salad.”
@grigs that we both rely on "view desktop site" links tells me that mobile-optimized content regularly falls short of users' needs
/cc @beep

10:30pm Mar 4th 2011 via Twitter for Mac in reply to grigs

scottjehl
Scott Jehl

Thought of the day: we'll know the mobile web is "ready" when links to the desktop version are understood to be unnecessary.

10:43pm Mar 4th 2011 via TweetDeck

grigs
Jason Grigsby
Top Pages by Visit
“Kayak is now consciously taking design cues from its recently updated iPad and iPhone apps”
“The goal in making the site more like a mobile app is to shed unnecessary details and simplify”

Source: http://gigaom.com/2012/01/30/why-kayak-prefers-mobile/
“If something is on the screen and people aren’t clicking on, we remove it”
“How do you gradually reveal mobile experiences?”

1. Nested Doll
2. Hub & Spoke
3. Bento Box
4. Filtered View

Source: http://slidesha.re/yNf7Qw
1. Nested Doll

Source: http://slidesha.re/yNf7Qw
2. Hub & Spoke

Source: http://slideshare.net/yNf7Qw
3. Bento Box

Source: http://slidesha.re/yNf7Qw
4. Filtered View

Source: http://slideshare.net
CONTENT FIRST, NAV 2ND

• Minimal navigation, maximum content
• Focus on what matters most
• Gradually reveal experiences
ORGANIZATION

1. Mobile Behaviors
2. Content First
3. Navigation Elements
4. Clarity & Focus
Navigation Elements

56% NAV/CHROME

44% CONTENT
55% NAV OPTIONS
90% NAV OPTIONS
90% RESULTS
13 NAV ELEMENTS

TOUCH TARGETS
5 NAV ELEMENTS
4 NAV ELEMENTS
Full Navigation Page
Top Navigation Overlay
Pivot & Explore

Bottom Navigation Menu
Dead End
Duplicative Menus

ESPN Mobile Web Home
Recently Visited
Scores & Schedules
News
Analysis
Sports
Fantasy
Podcenter
scoring list
MORE  Daily Dime Live: ESPN experts discuss Sunday's action
VIDEO  Carmelo, Amare Focused On Winning
VIDEO  Suns Beat Pacers At The Buzzer
LIVE  NBA PHI 89 CLE 81 3:43 4th

What's Hot
News & Analysis
Video
Sports
SportsNation
Podcenter
Favorite Teams
Fantasy
More from ESPN

ESPN.com | ABC News | ESPN Alerts | Help | Search | Site Map | Terms of Use | Interest-Based Ads | Privacy Policy/Your California Privacy Rights
Best of Both Worlds?

Minimal Navigation

Just an Anchor Link

No Duplicative Menus

Pivot & Explore
80-90% of people are right handed
Responsive Web Design

Fluid grids • Flexible images • Media queries
The universe overwhelms me at times.

Things are complicated. Time is fragmented. Attention is scarce. Technology encourages interruption. As I get older, I find it harder and harder to function in the noise. I need space to breathe to make anything worthwhile. And I’m not alone in this. The New York Times and The Atlantic have ongoing features about how computers affect our quality of life. Harvard Business Review offers advice on training your brain to focus and making room for reflection.

Linda Stone, a tech writer and consultant, has studied this problem for years. “We’ve been operating in an increasingly noisy world and taking on the job of staying on top of everything,” she said in 2007. “Even though the world may continue to be noisy, increasingly we are craving stillness, meaningful connections, and we’re yearning to get to the bottom of things.” There are more people, more problems, and more things to do. It’s hard to find quiet in such a connected world.

If technology overload isn’t reason enough to bring a peaceful conviction to our work, there are millions of people with anxiety disorders to consider. About 18% of U.S. adults have issues with anxiety, myself included.[1]

Anxiety pulls the mind from the present to another moment, just out of reach. When we’re anxious, we experience the tension of being in one time and place while thinking about another. Whether concerned for the future or replaying bits of the past, someone in this mindset might feel hurried, tired, agitated, or distracted. Like an overwhelmed multi-tasker, they need space to breathe and time for reflection.

The anti-calm culture
Responsive Navigation Patterns

1. Footer Anchor
2. Toggle Menu
3. Select Menu
4. Top Navigation

INSIDE

CHERRY NOIR

GO BEHIND THE CAMERAS AT HOTEL NOIR AND DISCOVER THE EXCEPTIONAL TASTE OF GREY GOOSE CHERRY NOIR FLAVORED VODKA

WATCH MORE CHERRY NOIR VIDEOS +
1. Footer Anchor

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Minimal navigation at top</td>
<td>• Anchor jump can be awkward</td>
</tr>
<tr>
<td>• One tap access to navigation</td>
<td>• No smooth motion (might be expected on mobile)</td>
</tr>
<tr>
<td>• No dead ends</td>
<td></td>
</tr>
<tr>
<td>• Comfortable for touch</td>
<td></td>
</tr>
<tr>
<td>• No Javascript dependency</td>
<td></td>
</tr>
<tr>
<td>• Scalable (high)</td>
<td></td>
</tr>
</tbody>
</table>

2. Toggle Menu

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Keeps user in context</td>
<td>• Animation performance</td>
</tr>
<tr>
<td>• Smooth animation</td>
<td>• Javascript dependency</td>
</tr>
<tr>
<td>• Minimal navigation at top</td>
<td>• Potential dead ends</td>
</tr>
<tr>
<td>• One tap access to navigation</td>
<td>• Less optimized for touch</td>
</tr>
<tr>
<td>• Scalable (med)</td>
<td></td>
</tr>
</tbody>
</table>

The Icon Handbook
by Jon Hicks

“Bold, beautiful, thoughtful, and
fun.”
Simon Coghlan

OUR BOOKS

Bold typed Web Design
by ADRIAN CLARKE

Web App Success
by DAN ZAMBRONI

Available now!
3. Select Menu

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Minimal navigation at top</td>
<td>• Lack of styling</td>
</tr>
<tr>
<td>• Pulls up native controls</td>
<td>• Handling second-level navigation</td>
</tr>
<tr>
<td>• Scalable (med)</td>
<td>• Javascript dependency</td>
</tr>
<tr>
<td></td>
<td>• Multi-tap operation</td>
</tr>
</tbody>
</table>

The Content Strategy Conference Is Back (And Sold Out)!

Meet the Speakers
Lou Rosenfeld
Ann Rockley
Dan Roam
Karen McGrane
Colleen Jones
Kevin Cheng
and many more...

Stay Connected
Confab 2012 is SOLD OUT
By Erik Westra on Jan 30, 2012
It’s official: Confab 2012 is sold out and the waiting list is now closed. If
4. Top Navigation

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Easy to implement</td>
<td>• Navigation first, content second (height issues)</td>
</tr>
<tr>
<td>• No Javascript dependencies</td>
<td>• Touch target proximity</td>
</tr>
<tr>
<td>• Single source order</td>
<td>• Cross-device line-breaking issues</td>
</tr>
<tr>
<td>• Scalability (low/med)</td>
<td></td>
</tr>
</tbody>
</table>

Responsive Navigation Patterns

1. Footer Anchor
2. Toggle
3. Select Menu
4. Top Navigation

In-Context Actions
In Context Navigation

Global Navigation
In Context Navigation
What About Fixed Position Menus?
80-90% of people are right handed
Fixed Bottom

- Requires Javascript
- Eats up Screen Space
Fixed Position Support

<table>
<thead>
<tr>
<th>Mobile Safari</th>
<th>iOS4</th>
<th>iOS5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>treats as static elements &amp; scrolls with rest of page</td>
<td>strong support</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Android</th>
<th>2.1</th>
<th>2.2</th>
<th>2.3</th>
<th>3 &amp; 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no support</td>
<td>awkwardly snaps fixed elements back when scrolled</td>
<td>supported but disabling page scaling is required</td>
<td>supported with decent performance</td>
</tr>
</tbody>
</table>

## Fixed Position Support

<table>
<thead>
<tr>
<th>Blackberry</th>
<th>5.0</th>
<th>7.0</th>
<th>Playbook</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>supported but fixed elements are jittery</td>
<td>supported</td>
<td>supported but text is jagged in fixed position elements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Browsers</th>
<th>Opera Mobile</th>
<th>Opera Mini</th>
<th>Firefox Mobile</th>
<th>Windows Phone</th>
<th>Amazon Silk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>awkward snap &amp; miscalc</td>
<td>no support</td>
<td>supported on version 6.0+</td>
<td>Ignore &amp; treat elements as static</td>
<td>supported but disabling page scaling is required</td>
</tr>
</tbody>
</table>

Fixed Bottom

- Requires Javascript
- Eats up Screen Space
- Physical Control Proximity
Physical Controls Below Screen
System Controls

“I’m always hitting that home key by mistake rather than the space bar and so exit out of what I’m typing.”

Source: http://bit.ly/ttmq1g
Android Design

Don't use bottom tab bars

1. Other platforms use the bottom tab bar
2. Android’s tabs for view control are shown in action bars at the top of the screen

Source: http://developer.android.com/design/patterns/pure-android.html
Getting Back

Back Button

Back Button
Getting Back

Back Button

Back Button
Android Design

Don't use labeled back buttons on action bars

1. Other platforms use an explicit back button with label
2. Android uses the main action bar for hierarchical navigation & the navigation bar for temporal navigation

Source: http://developer.android.com/design/patterns/pure-android.html
Getting Back
Getting Back

Source: http://bit.ly/raZcON
NAVIGATION ELEMENTS

- Avoid excessive navigation menus
- Top navigation links for quick access
- Bottom menu for pivoting & exploring
- In context actions & navigation
- Avoid back buttons & fixed bottom positioning
Partial attention requires focused design
Maintain Clarity

Single Navigation Action
Minimize Errors

“47% of mobile users tap on ads by mistake.”

SOURCE: HARRIS INTERACTIVE, DECEMBER 2010
CLARITY & FOCUS

- Minimize amount of navigation required
- Focus on task at hand
Exercise

How do mobile use cases intersect with?

• Your customer’s needs
• Your business goals

Sketch out your mobile Web experience start screen. Focus on:

• Lookup/Find, Check In/Status, Explore/Play, Edit/Create
• Content first, navigation second
• Navigation elements
• Clarity & focus
1. Mobile Behaviors
2. Content First
3. Navigation Elements
4. Clarity & Focus
THANKS

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Luke Wroblewski

MOBILE FIRST