



# Designing for the Mobile Web

## Lesson 1: Understanding the Mobile Landscape

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# Welcome!

- Four sessions
  - **1: The Mobile Landscape**
  - 2: Device Constraints and Opportunities
  - 3: HTML5 Web Apps
  - 4: Native Apps

# Questions

- Ask questions via chat during the live course
- Ask in the discussion group
- Email us
  - *Please use the discussion group* for non-private questions
- Course Portal
  - [www.online-web-courses.com](http://www.online-web-courses.com)



Michael Slater  
Cofounder & CEO



Andrew DesChenes  
Director of Services

# Course Approach

- Understanding the landscape
- Choosing strategies and tools
- Lots of site and app examples
- Understanding constraints and opportunities
- A few code examples

# Topics for This Lesson

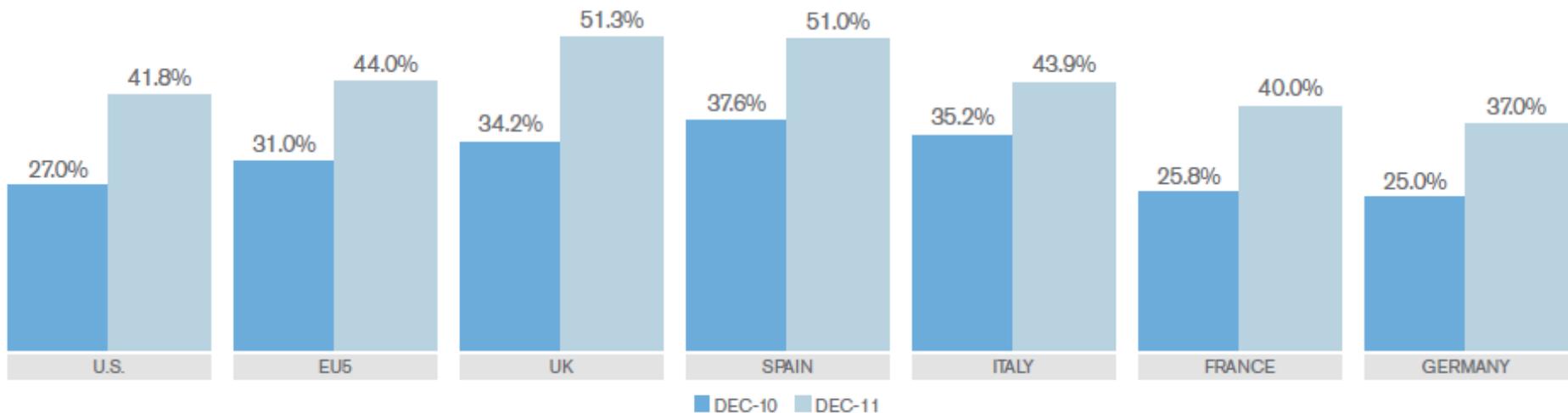
- Why mobile?
- Mobile is different: crafting mobile experiences
- Platforms to consider
- The advantages and costs of native apps
- Small-screen design
- Understanding mobile users
- Designing for tablets

# Why Mobile?

- Smartphone unit sales > PC
- 490 million smart-phones sold in 2011
  - 37 million iPhones 4Q 2011
- 6.8 million iOS+Android devices activated on Christmas day 2011
- ~10% of web traffic, growing rapidly
  - Doubled during 2011
- Primary web platform in many countries
- > \$4 billion/year in mobile commerce

## Smartphone Share of Total Mobile Audience

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011 vs. Dec-2010



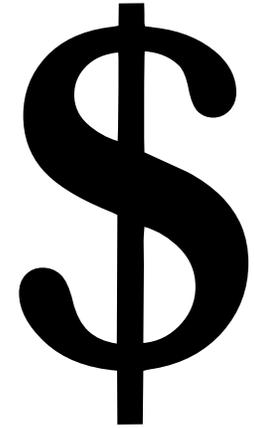
# Mobile is Different

- Small screen
- Touchscreen
- Always with you
- Always connected
- New app platforms and distribution systems
- New sensors (camera, GPS, compass, accelerometer)



# Start with Business Goals

- Start with what you are trying to accomplish
  - Is the site or app supporting an offline business
  - Is it intended to make money via ads or by charging directly?
  - Is the focus on acquiring new customers, or serving existing ones?
- How will prospective users find you?



# First Choice: Site or App?



## Web site / web app

- Run in browser
- (mostly) Platform-independent
- "Normal" web site
- HTML5 web app
  - Local storage, fullscreen



## Native apps

- Run independently
- Platform-specific
  - iOS
  - Android
  - Windows Mobile
- Installed on device

# Native App Advantages

- Best performance
- Able to fully optimize for each device
- App Store distribution channel
  - Easy to charge for the app
- One-click in-app purchasing
- Access to non-web-standard devices
  - Camera, accelerometer
  - Multitouch
- Include any amount of persistent storage



# Native App Disadvantages

- Each platform has its own native apps
  - Each has its own tools and languages
- Programming skills required
- Users must install your app
  - And must choose to update to get latest
- App store policies and processes
  - Revenue share with app store
  - No tracking for source of sales



# If Building a Site

- Technology is web standards
  - HTML5, CSS3, JavaScript
- Various libraries available to speed mobile site development
  - jQuery Mobile, Sencha Touch
- Consider whether you want it to feel like an app or a site
- Make sure you can access the features you need



# Responsive Design

- Responsive design
  - Allows a single set of HTML pages to serve all devices, by using CSS media queries to change the CSS
  - Use flexible grids that scale with width
  - Scale images using the browser
- Alternative: separate pages
  - Allows you to optimize the mobile design separately from the desktop design
- We'll address this choice in the next two lessons

# If Building an App

- Choice of native technologies (iOS, Android) or cross-platform frameworks
- Cross-platform frameworks add a layer between you and the hardware, but simplify life
  - PhoneGap: turn web-standard code into an app
  - Titanium: JavaScript-based app development



# Platform Diversity

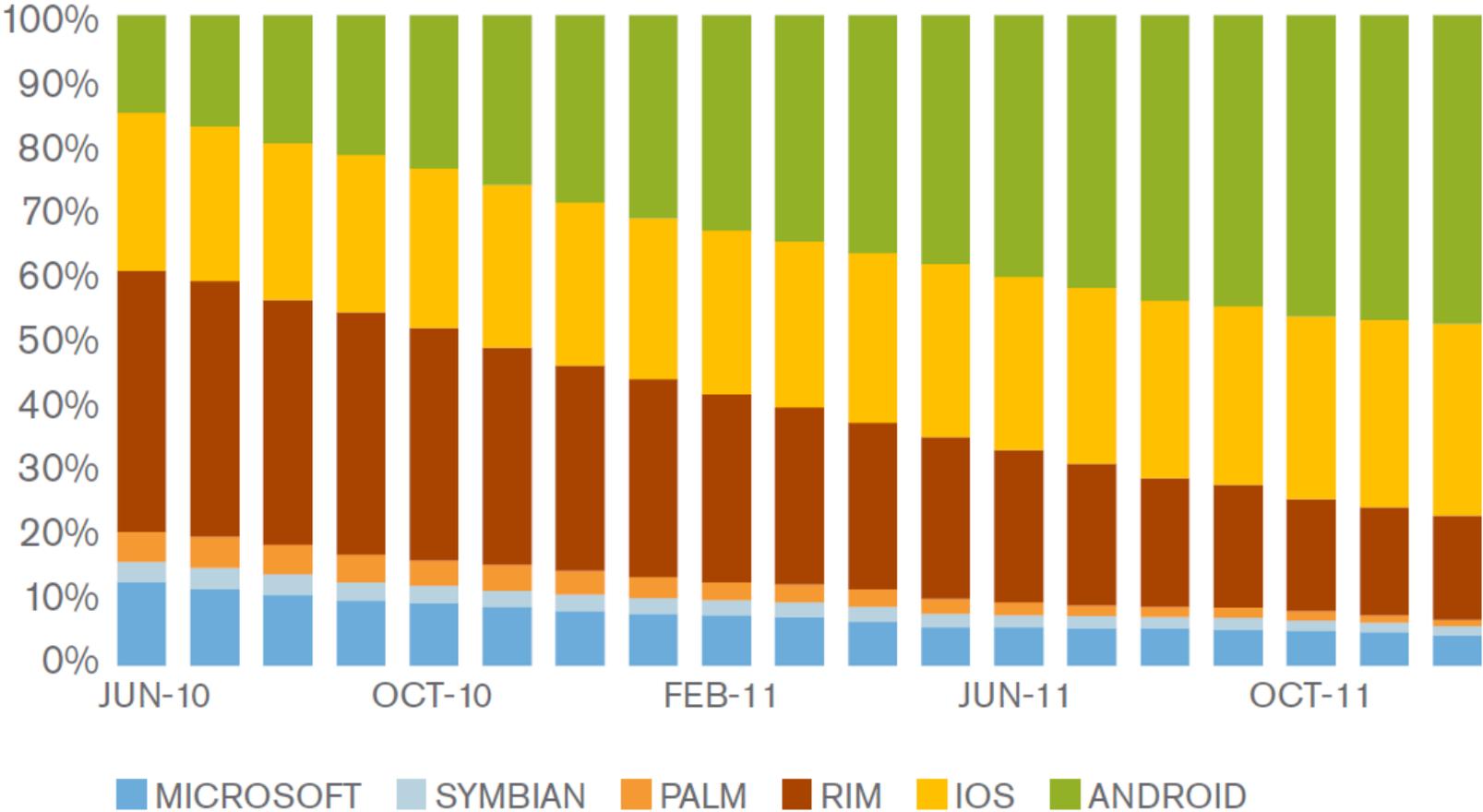
- There's only ever been a handful of iOS devices, and most are updated frequently
  - Relative sane world, though run by a dictator
- In Android world, more freedom and less centralization => overwhelming diversity
  - [www.android.com/devices](http://www.android.com/devices)
  - Device OS version often never updated
  - Browser may not be updated; varying HTML5/CSS3 support
  - Screen resolutions vary dramatically



# Market Share Shifting

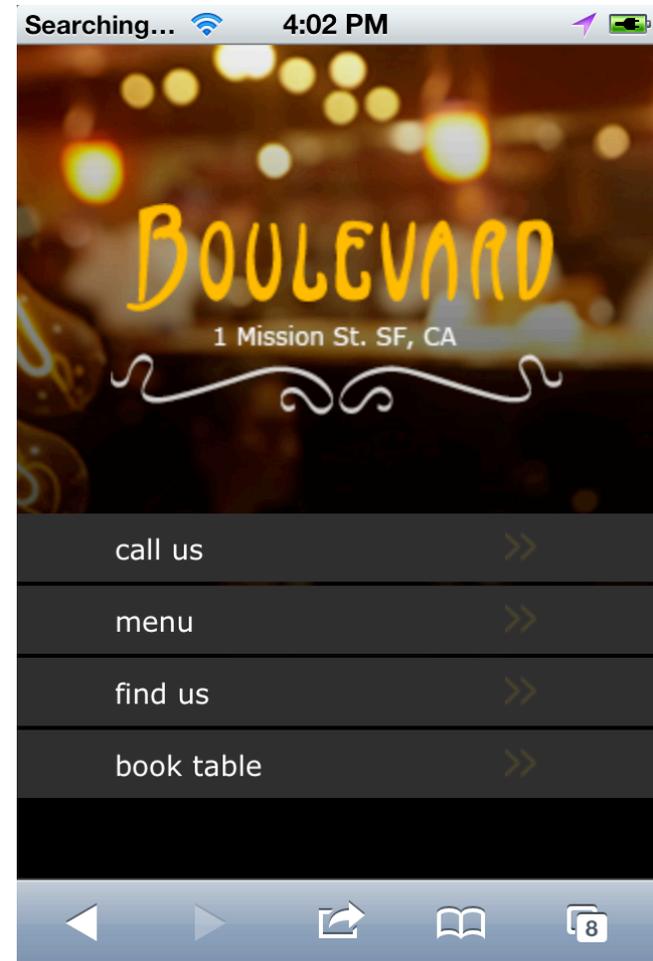
## U.S. Smartphone Market Share by OS

Source: comScore MobiLens, 3 mon. avg. ending Jun-2010 to Dec-2011, U.S.



# Small-Screen Design

- Minimal navigation
- No sidebars or multi-column layouts
- Pare down to the essentials



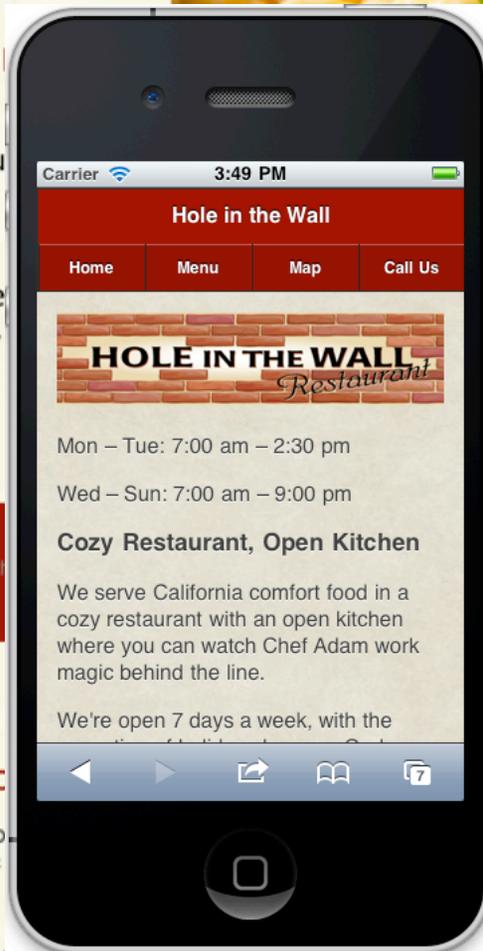


## Breakfast, Lunch, and Di

"The best breakfast in Sonoma Cou  
hands down."

"Fantastic food! Made with love, cle  
ingredients and reasonably priced."

✓ Like Michael Slater, Justin Borton and 194 oth



## nia Comfort Food

Days a Week!

[CHECK OUT OUR MENU](#)

## Cozy restaurant, open kitch

We serve California comfort food in a co  
open kitchen where you can watch Chef  
behind the line.

We're open 7 days a week from 7 am to 2:30 pm on  
Mondays and Tuesdays and 7 am to 9 pm Wednesdays  
through Sundays, with the exception of holiday closures.

Grab a friend, bring your mom and come down to join us for  
breakfast, lunch and/or dinner! We look forward to seeing  
you.

## are Open

it and Lunch 7 Days a Week!

every day except Monday and Tuesday

Mon - Tue: 7:00 am - 2:30 pm  
Wed - Sun: 7:00 am - 9:00 pm

## About Chef Adam

Starting at age 15, Chef Adam Beers began his first culinary  
job stirring gumbo. He has worked at multiple food places as

Morning

Afternoon and Evening



Soup & Salad | Burgers | Crepes | Dessert

Soup

ORDER

**Soup of the Day**

Cup  
Small Bowl  
Big Bowl

ORDER

**French Quarter Gumbo**

Traditional Cajun style gumbo with crawfish, onions, bell peppers, and rice. This dish is brought up from the south with a smoky flavor with a bite.

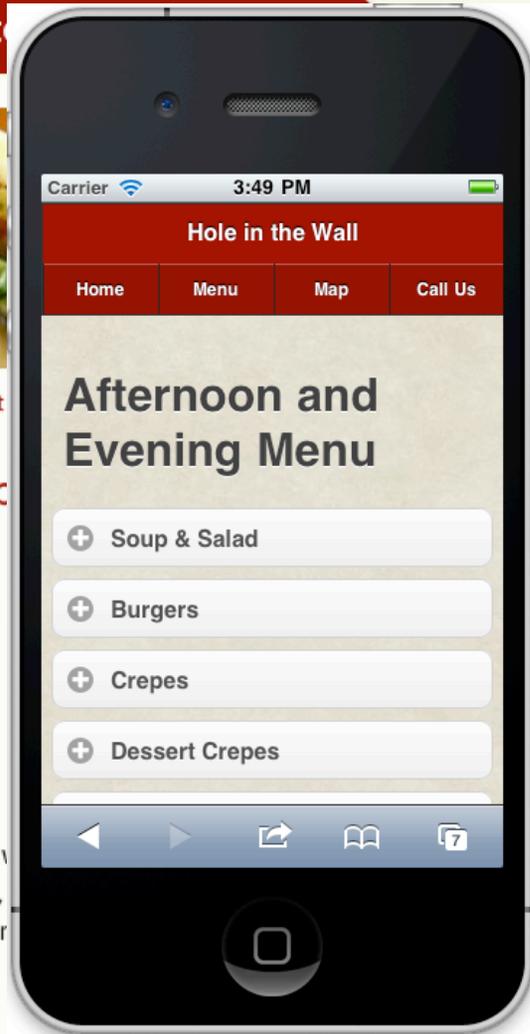
Add prawns

ORDER

**Sebastopol Borscht**

A hot villager's style soup with slices of golden and red beets, cabbage and chunks of potato topped with an all natural Angus short rib and sour cream.

\$9.50



Your Order

1 Soup of the Day \$5.00

Size: Small Bowl

Delete | Change

1 Marinated Portabello Burger \$7.75

Fries

Delete | Change

1 Avocado \$1.00

Added to: Marinated Portabello Burger

Delete

1 Cheddar \$1.00

Added to: Marinated Portabello Burger

Delete

Total: \$14.75

Place Your Order

# Tablets: A Third Class of Platform

- Screen size similar to a small computer
- OS, App stores, and touchscreen interface like phones
- Different usage patterns than phones
  - Less mobile, more evening use
- Standard web pages generally functional on iPad and 10" Android tablets
- 7" tablets are "tweeners" and don't deal as well with today's web



# Tablets are Like Phones



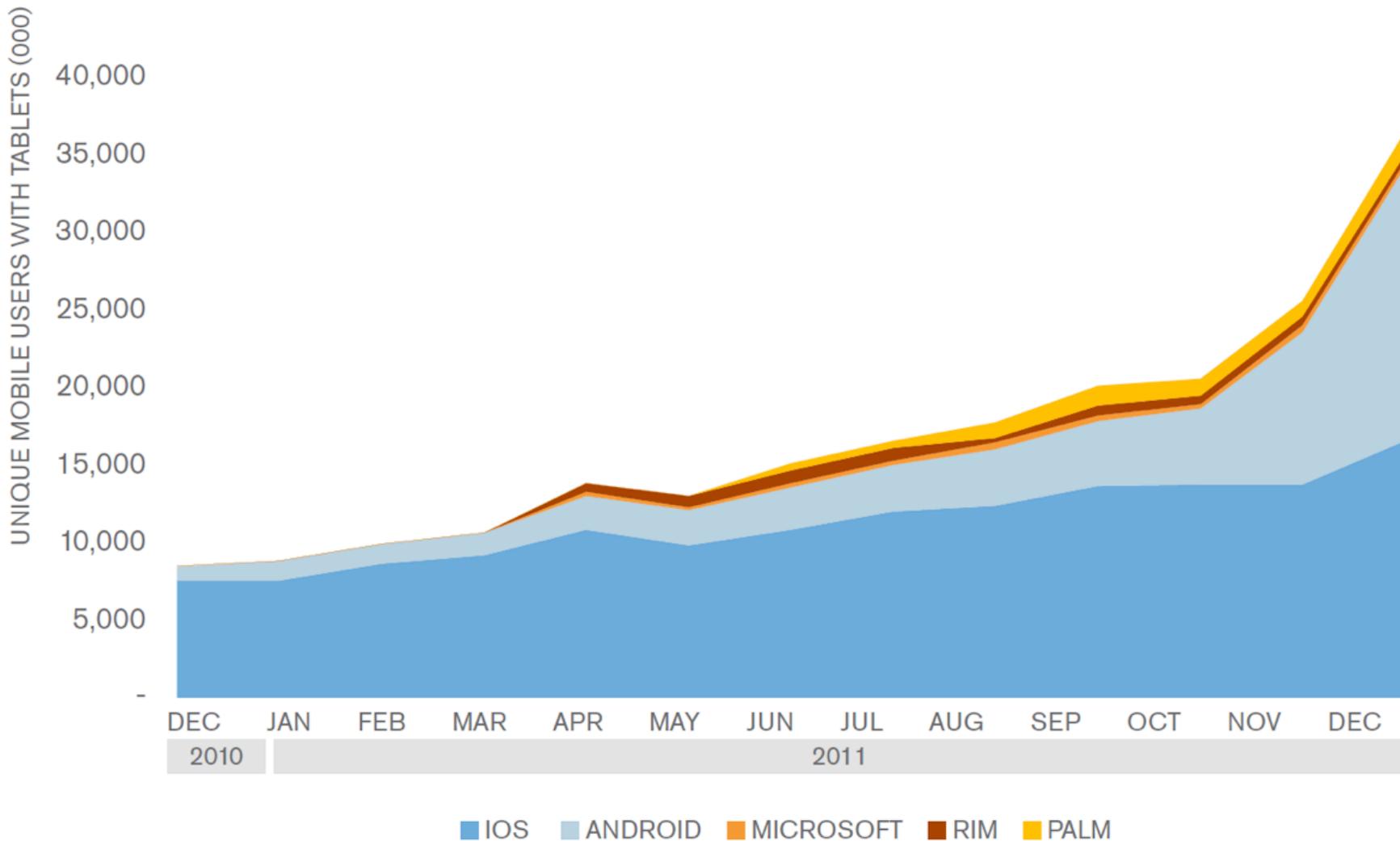
- Run mobile browsers
- Touchscreen interface
- Use a mobile OS
- Sometimes used in mobile setting

# Tablets are Like Desktops

- Not generally used one-handed
- More likely to be used in the evening
- Moderately large screen
  - Makes mobile site version inappropriate
  - Can use desktop site if design takes tablet limitations into account



# Tablets Taking Off



Source: comScore MobiLens, Dec-2010 to Dec-2011, U.S.

# Understanding Your Users

- When you only have room for a few choices and a few dozen words, you need to focus!
- Variety of motivations
  - I need to get this bit of info now
  - Where to eat lunch?
  - I'm bored and looking for entertainment
  - I have time to kill and want to do something productive



# Design for On-the-Go Users

- Action-oriented
- Impatient
- One-handed
- Specific needs
  - What's the phone number?
  - How do I get there?
  - Can I get a reservation?
- Remember: not all "mobile" device users are mobile



# Writing Mobile Content

- Make text as short as possible
  - Fit within one screen when possible
- Get right to the point
- Speak to users' goals
- Make it immediately obvious what the next step is
- Don't try to include everything from the desktop site



The screenshot shows a mobile browser interface for the WeComply website. At the top, the status bar indicates "No Service" and the time is "4:01 PM". The website header features the WeComply logo, the phone number "1-866-WeComply", and the text "Compliance Training". Below the header is a navigation menu with links for "Home", "Courses", "Why WeComply", and "Contact". The main content area displays a "Pop Quiz" titled "Honesty and Fairness". The quiz question asks: "What does the company do in a major lawsuit that affects another of its different sites. What does he need to do with regard to the company's record retention policy?" The options are: "Nothing, because the lawsuit involves another office.", "Nothing, except follow the existing record-retention guidelines.", and "Consult with the Legal Department before following existing record-retention guidelines." Below the quiz, the text "Top-Notch Training Courses" is visible. At the bottom of the screen is a navigation bar with icons for back, forward, search, and a notification icon showing the number "8".

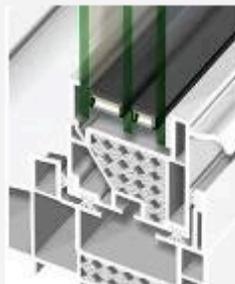
- Content is written/updated by experienced attorneys and major law firms
- Interactive format and “speed bumps” hold employees' interest



More Energy Efficient

**Why MI EnergyCore™**

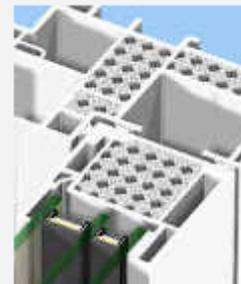
Find out why the MI EnergyCore™ Window System with AirCell™ PVC frame technology is so energy-efficient, stronger, more secure, quieter, with traditional style.



**Frame Advantages**

The MI EnergyCore™ frame is much more energy efficient:

- 6X Better than fiberglass
- 4X Better than rigid PVC
- 3X Better than wood



**See Our Video Library**

Watch our videos to see how our windows and doors are made, what components go into them, the story behind MI Windows and Doors and more.



**French Rail Patio Door**

Our new French Rail Patio Door is made of MikronWood™, a thermoplastic alloy resin, that is rot-proof and impervious to insects, moisture and humidity.



**MI EnergyCore Window System™** Why MI EnergyCore™?

Numerous Barriers to Air and Water Infiltration

- Multiple contact points of weatherstripping
- Interlocking meeting rails and pocketed sill with drainage
- LC 50 AAMA rating

MIenergycore

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**Monday August 15, 2011**

[MIWD Now Taking Orders for MI EnergyCore Energy Efficient Windows](#)

**Saturday August 6, 2011**

[MIWD Launches New Energy Efficient Window System: MI EnergyCore™](#)

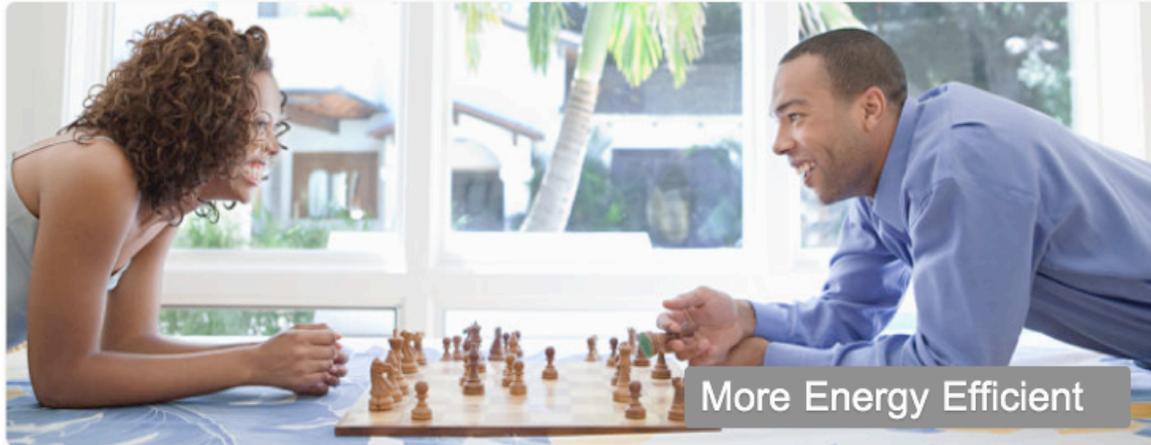
**Wednesday July 20, 2011**

[MIWD Launches New Website to Sell MI EnergyCore Windows](#)





- Home
- Video Library
- Pricing
- Documents
- About Us
- Newsroom



**MI EnergyCore Window System™** Why MI EnergyCore™

Numerous Barriers to Air and Water Infiltration

- Multiple contact points of weatherstripping
- Interlocking meeting rails and pocketed sill with drainage
- UG 50 AAMA rating

**Video Library**

See videos about why is the MI EnergyCore™ Window System with AirCell™ PVC frame technology is so energy efficient.

**Specs and Drawings**

See the technical specifications for the MI EnergyCore™ Window System is and view Cross Sectional drawings of the windows and patio door.

**Price Book**

Access pricing for the MI EnergyCore™ Window System and get tips of how to order the windows and patio door.

**Presentations**

Access presentations about the windows, French Rail Patio Door, Styles and Options, Laminated Glass and more.

Window Styles, Colors, Options

- Recent News | [View All](#)**
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[MIWD Launches New Energy Efficient Window System: MI EnergyCore™](#)
  - Wednesday July 20, 2011  
[MIWD Launches New Website to Sell MI EnergyCore Windows](#)
  - Friday July 1, 2011  
[iPads and Custom Application Deployed to MIWD Sales Force](#)
  - Tuesday June 28, 2011  
[MIWD Installs New Shrink Wrap Packaging System](#)

# Homework

- Define an app and/or site strategy for the following situations:
  - Retail store wanting to attract new customers
  - Restaurant wanting to provide easy to-go ordering
  - Manufacturer wanting to provide product information to prospective purchasers
  - Publisher wanting to distribute content and monetize with advertising
  - Publisher wanting to distribute paid content