UW MCDM Mobile Web User Experience

04.18.13

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What (we think) we know about mobile:

Morgan Stanley predicted that more mobile devices than PC's would ship in 2012. It happened in 2010.

There are approximately 1.5 billion mobile broadband subscribers worldwide. Of these, most are mobile web users.

As of 2011, mobile was the *only* method of accessing the web for about 1/3 of web users worldwide.

Bottom line: mobile means are now the *preferred* method of accessing the web for a *significant majority* of all web users.

Mobile Web Strategery

"It's all about apps. Our competitors have an app. Therefore we need an app. Apps, Apps, Apps!" **is not a strategy.**

Mobile Web *Strategy*

Separate the strategy from the strategery.

Who are your users? What is their context?
What are their goals?

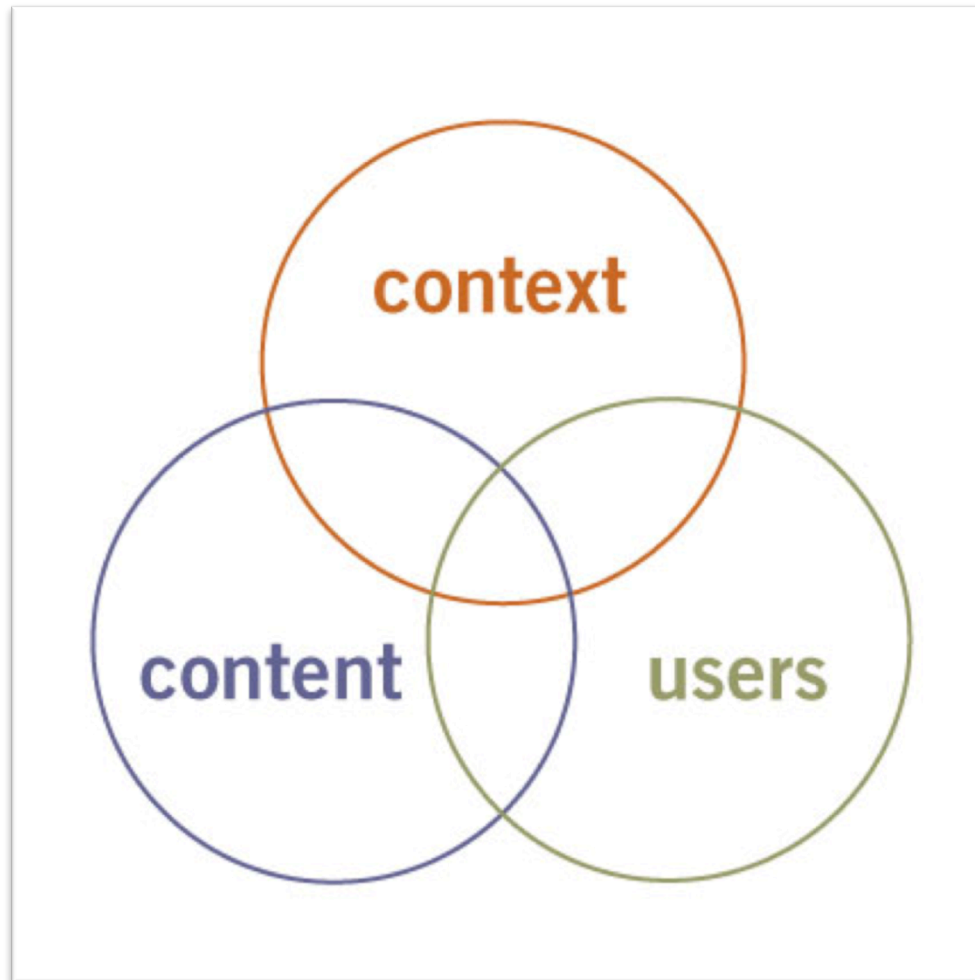What's the business problem you're trying to solve?

What's the right solution for that business problem?

How does your audience use mobile devices?

How does your audience use your product or service?

How can you align user and business goals?

The User Experience Venn – especially useful for mobile

Mobile Web Context

Anytime, anywhere access.

Instant, real-time.

Mobile is social.

Mobile is personal.

Mobile is local.

Mobile is fun.

Mobile both less capable – and *more* capable.

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n + m. = FAIL

If mobile is an afterthought, failure risk is high.

Appending a mobile web solution to a non-mobile product or service is a recipe for failure.

Your strategy *must* account for mobile contexts.

You need organization-wide buy-in to the *entire* strategy – including mobile web.

Solutions designed for non-mobile environments, then adapted for mobile will be limited, awkward and *out of context.*

Integrated mobile solutions require integrated: **planning, tactics, integration and implementation**.

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Mobile is not Web To Go

There are major differences between mobile and desktop web browsers.

It is much more difficult to target the myriads of mobile devices and browsers than targeting 4 contemporary desktop web browsers.

Don't dumb it down – people still need quality information in mobile contexts.
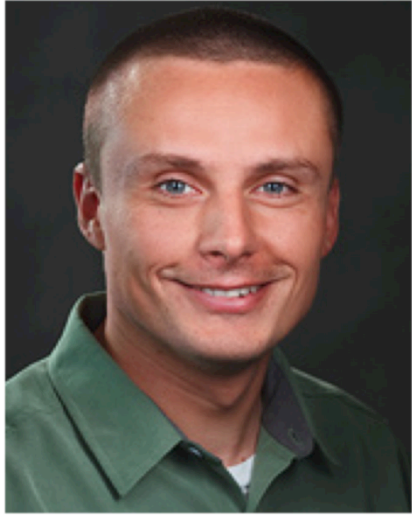
The Great Mobile Debate

Does mobile mean providing experiences tailored explicitly for the mobile context?

Does it mean you have to create independent experiences for every possible browser on every possible device?

Does it mean you can strip down content and functionality?

Is it easier or harder to design for mobile?

Point: Mobile First

Designing for mobile first forces you to focus on what's truly important in an interaction, service or corpus of content.

Luke Wroblewski
Author of *Mobile First*

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Counterpoint: Content Everywhere

Presuming that the "designer knows best" when choosing how to deliver personalized content or functionality is risky.

Even armed with real data, we're likely to make incorrect assumptions when we decide to show some things and hide others.

Karen McGrane

Author of *Content Strategy for Mobile*

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How do we reconcile this debate?

It's still evolving, and it won't be settled soon.

It sounds contradictory but there's validity to both perspectives.

A way forward: differentiate design execution from the delivery of content and functionality.

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What's the right mobile solution?

Mobile Web site?

Mobile Web App?

App?

Other?

You don't always have to choose.

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Responsive Design, Adaptive Content

Responsive Design is a set of techniques focusing on breakpoints instead of browsers.

Adaptive Content means breaking content into small chunks so it can adapt to context and afford progressive content discovery in

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Create Mobile-Integrated Experiences

Ideally, mobile use will be woven into a larger integrated experience, blending behaviors, interactions and activities offline experiences naturally.

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Mobile Web Design Principles

What are design principles?

Why are they important?

How do you use them?

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Assume attention is limited

Average mobile session length is 6.6 minutes.

In a mobile context, users "info snack."

On the desktop, it's about attention.

On phones, attention is limited, and sessions have harder stops.

Tablets are a hybrid.

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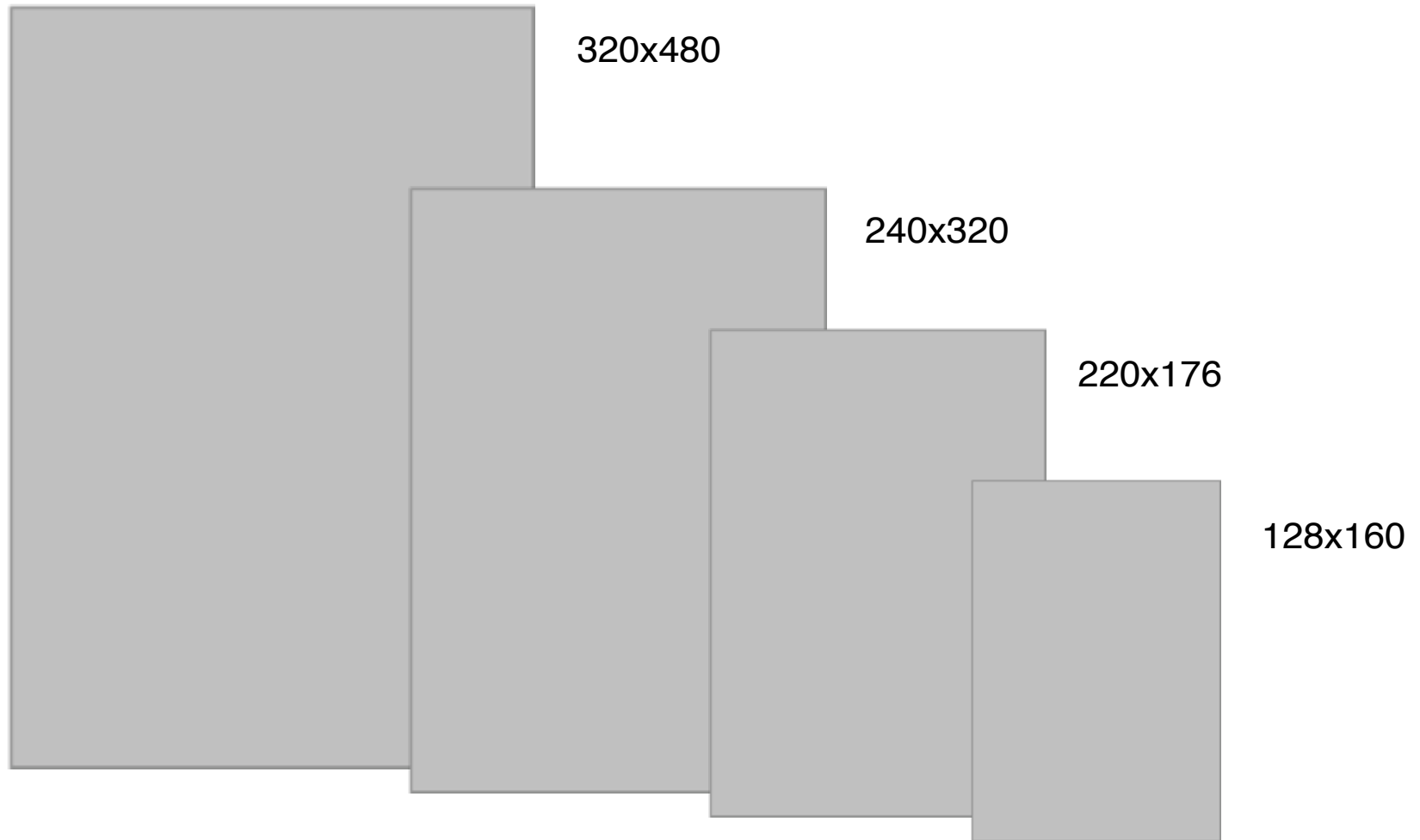# Assume the Environment is Constrained

Viewports are small

Input is restricted

Touch is good for some things, not as good for others
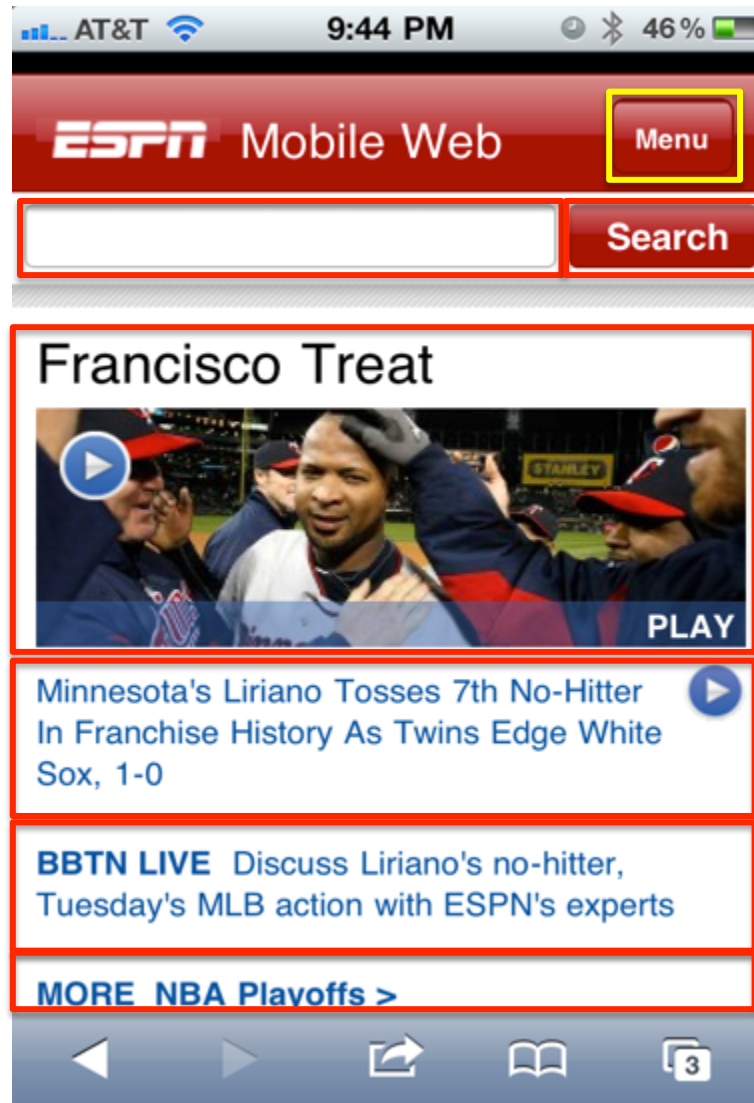
Users often only have one free hand

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Mobile Device Viewports

320x480

240x320

220x176

128x160

Touch Targets

Touch Targets – Much Better

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Legibility

Text renders differently on different types of mobile device.

Mobile screens are smaller, so text flow is altered

Mobile displays are typically closer to the eye, so lower resolutions are more noticeable – this affects legibility.

Anti-aliasing can be compromised.

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Mobile Network Bandwidth (and Latency)

Perceived performance is key to UX

Nothing affects perceived performance more than network performance.

Often, you must "design-around" the speed of the network.

Think Screen by Screen

Mobile environments are typically far more *modal* than desktop environments.

Mobile viewports are constrained, so it's difficult to make screens afford more than one activity at a time.

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Scenarios Matter

Use scenarios to establish interaction models.

Scenarios must be *realistic* and *in-context.*

If a feature doesn't work within a realistic user scenario, cut it.

Traditional user research may not expose key scenarios – you have to follow users around in the world, not just test in a lab.

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Context is king

What makes sense as a scenario while sitting in a bar may make absolutely no sense while sitting in a library.

What are the fundamentals of the context of use that drive the use scenario?

Examine extreme contexts to inform the design of common ones.

What is the precise experience that will satisfy a user's need in a certain context?

Feedback is Essential

It must be instantaneous

It must be relevant

It must be actionable

It must fit within the interaction model for the mobile web app.

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Mobile Web Design Patterns

What are design patterns?

Developing a design pattern library

Conventions are your friends

When to use patterns, when to innovate

Best Practices

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Prioritize features and functionality

Use the constraints of mobile to focus your design thinking, but don't withhold content and functionality lazily.

Figure out a way to implement a *mobile-sensitive* means of usage or access.

Use Interface Guidelines

All of the platforms (iOS, Android, WP7, Blackberry) have interface guidelines for developing native apps.

Applied judiciously, they can be a good place to find ideas for Mobile Web app development as well as design patterns and best practices.

Be cautious about stock design patterns.

Minimize input required from users

Since input is limited, it slows users down and contributes to fatigue.

If input is too much trouble, users may write off your whole solution.

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Use Device Capabilities to Full Advantage

Depending on the device, there's much your solution can know about the user's context.

Use this information to narrow the context, reduce input requirements, and provide user assistance.

Make sure, however, that your solution "downlevels" gracefully to less capable devices – don't make it too dependent on a device capability that only the highest-end devices have.

Process
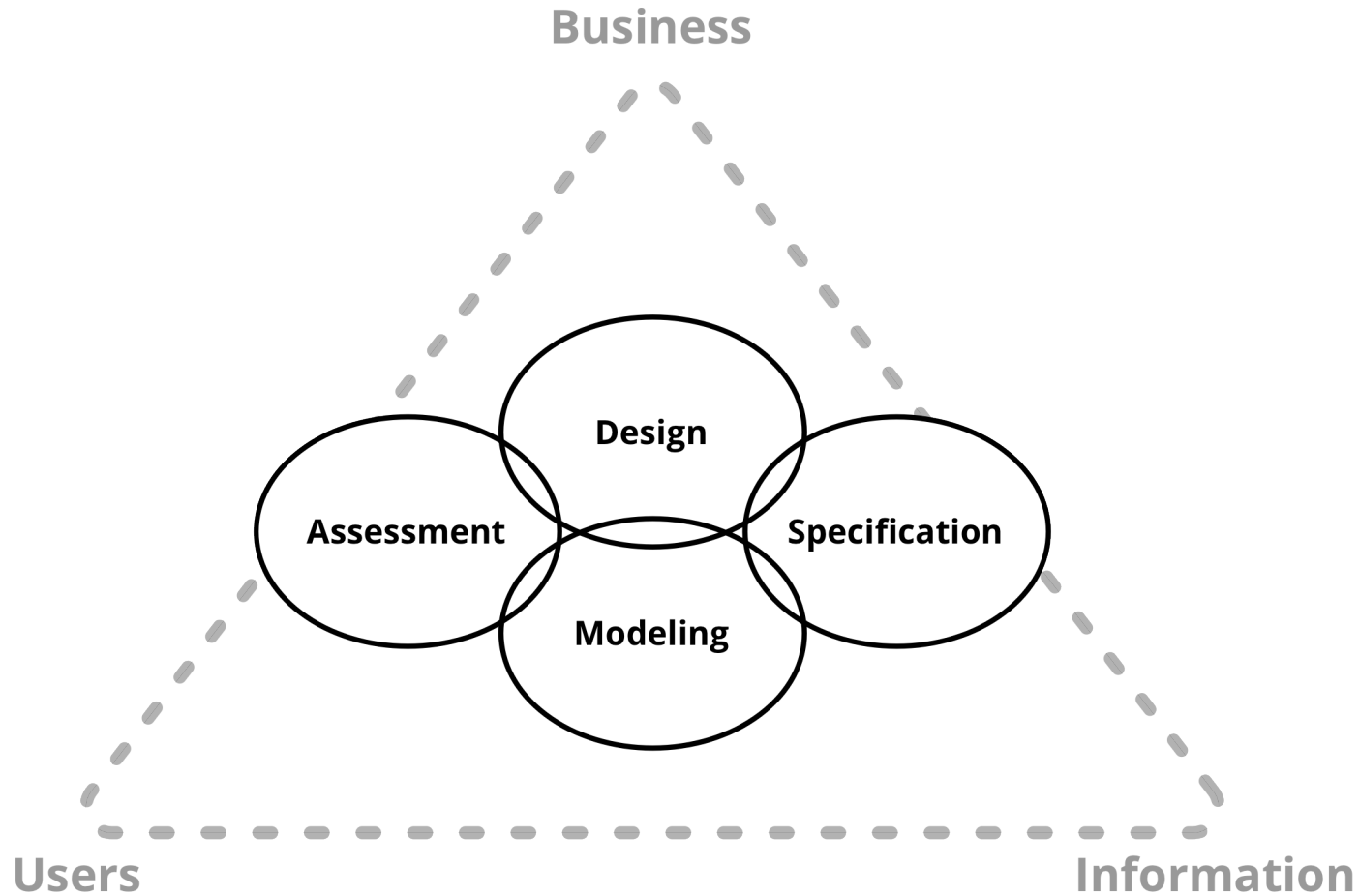
Interaction Design

Experience Mapping

Scenarios

Flows

Diagramming

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Sketching

How to sketch

Sketching tools

Rapid iteration is key

Sketch sequences of screens, iterate the whole sequence

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Prototyping

Why prototype?

How to prototype

Prototyping tools

Simulation

On-device prototyping

In-screen paper-prototyping

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Rethinking user input

Wearable devices will challenge established input devices and interaction models and change the way users interface with devices and the apps that power them.

Workshop Format

First session - 5 mins: Strategy & Business Solution - What will the web app do, what problem will it solve?

Second session - 5 mins: Interaction Model - How will it solve this problem, how will the app work?

Third session - 10 mins: Paper Prototype Sketching - I will supply the students with sharpies and mobile viewport sketch paper.

Workshop Challenge

A large health care provider has a system that allows customers to make online doctor's appointments and be notified when their appointment is upcoming through a method of their choosing. When they show up for their appointment, customers can check in via a touch-screen kiosk in the waiting room. Create a mobile web solution that integrates with this appointment system.

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THANK YOU!

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