



MoFuse, Inc

The 5 Guiding Principles for Designing an Exceptional Mobile Web Site

Making Mobile Work For Your Brand

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How to design for the mobile web

If you lived in a 2-story, 8 room house and suddenly had to move to a 2 room bungalow, you would rethink what kind of “stuff” you wanted to bring to your new house. You would definitely shed all of the unnecessary knick-knacks and large furniture that simply won’t fit. But you would also find a way to arrange your belongings so they made your new life in a smaller home, much easier.

The same process is true when you are designing for a mobile website, except with a twist - the people using this device are in a different mode than when they are using your desktop site. And that is the essential point to designing for mobile with your customers in mind.

There are 3 driving forces that need to be considered in mobile design. Because of these important forces, we have developed the 5 guiding principles to follow that will ensure a great design.

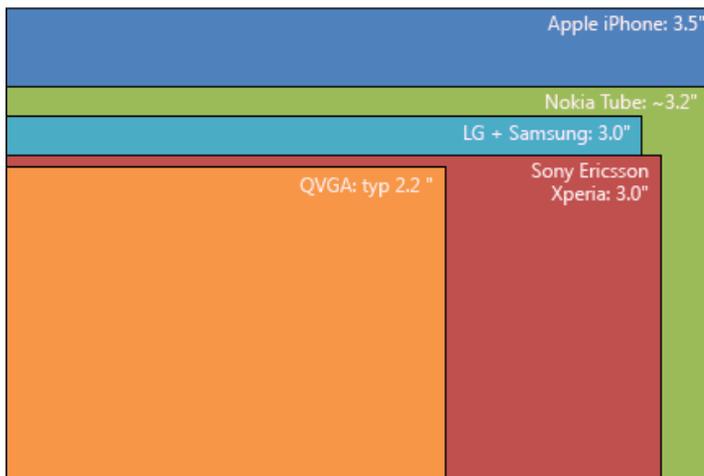
The 3 essential driving forces in mobile are:

1. **Limited and hugely variable display capabilities**
2. **Awkward and difficult input mechanisms**
3. **The Mode of the User when they are mobile**

Limitations and Variability of Mobile Display

Your desktop site has been designed for a viewing monitor of 15 to 21 inches! Modern smart phones are more likely in the 2 inch to 3.5 inch size. The iPhone has a 3.5 inch screen, for example. The iPhone has about twice the screen size of a BlackBerry, and the iPad screen is about 10 times as big as the iPhone’s, so there are many things to consider when designing for the small screen.

Trends in mobile phone screen size are moving towards larger screens and landscape orientation, however you need to design to make sure your site is user friendly on the nearly 5,000 different handsets out there



today. According to a number of people who have studied this problem, the average cell phone web page should be designed for a baseline screen size of (your canvas) 240 x 320 pixels both for smart phones and feature phones. (<http://sender11.typepad.com/sender11/2008/04/more-on-mobile.html>).

You might have guessed that the same principles used for designing your desktop website will not work for a mobile site. Starting with the fact that you are designing for a much smaller space – you also cannot use the various tools and coding languages that are common on a desktop site. Flash or Java enabled elements simply will not load on the vast majority mobile devices. Sure there are a few very new handsets that can handle Flash for example, but the point is much more about context for the small screen and mode of the user. Also did you know that playing Flash even on your desktop computer will drain your battery! Imagine how quickly the mobile battery is drained if you place this on your site. While mobile devices and browsers are getting better at accommodating heavier files – merely presenting the exact same heavy features on the smaller device is a very bad design.

The final word is: You should not design only for a small percentage of viewers, rather make the mobile site work for the largest population.

What about screen resolution?

Many mobile screens have higher resolution than most desktop monitors. The iPhone, at **480-by-320 pixels**, enables it to display 163 pixels-per-inch. The Palm Pre has the same resolution on a 3.1" screen, meaning it packs the same amount of detail into an even smaller space. This means that text is extremely sharp on the screen and can help you pack a design punch!

A final note about the nature of the mobile landscape: You can create different sites for different mobile devices and then merely direct the audience to the proper mobile site: the Tablet site, the iPhone site, the site for the majority of mobile phones. This is done in the ‘redirect code’ that should be available at the top of your desktop site code.

Update on SmartPhone and Tablets in 2011

By the end of 2011 there will be more Smartphones than “feature” phones according to Nielson <http://bit.ly/ba2I2V>. Beyond the “Phone that turned into a computer”, there is the newest mobile device called “The Tablet” . **Tablets** are a growing category and should not be overlooked when you are planning your mobile brand. Tablets come in a range of sizes generally from about 8 – 10 inches. People interact with tablets differently than phones and therefore you may want to consider a special site or redirection to your desktop site for the tablet. Basically people using a pocket sized mobile phone are time constrained, focused on solutions and/or transactions. Tablet viewers in general, may be reading or consuming other media like movies. A bit more of a “lean back” mode than Smartphone.

Form Really Does Follow Function

Most designers use the 3 - 3.5 inch screen as a general guide for mobile web design template. The graphic below shows the actual perspective of a desktop device next to a mobile device – it is very easy to understand that merely squeezing down your desktop website into a smaller space is never going to be a good experience! You need to rethink for mobile specifically. Further there will never be a



satisfying automated way to read your HTML code, have a computer process make smart decisions on your behalf about what your human audience needs on a mobile site. Simply “scraping” the site and pushing it on to a smaller screen isn’t an option.

At MoFuse we believe you need to *design* for mobile and yes it is a little more work, but well worth the effort as your customers and new audience continue to look for you on the mobile web.

Desktop screen vs. iPhone – Picture to Scale

There is a lot of discussion about “Device Independence” and that there should be a “one web” view of the world. That means one website that could be handled by any device including desktop, the 5,000 mobile devices, game consoles, etc. We don’t buy that theory for one reason: **People are in a different mode when they are mobile (often actively moving around) and what is important to them and therefore what they need from your brand and website, will be vastly different then when they are sitting at a desk.**

Jason Fried, [37signals](#) founder, says it better than we could on the notion of ‘Device Independence’ and one website, “We think the idea of write-once-run-anywhere is a pipe dream,” Jason says. *“Sure, your H1s and H2s and LIs will degrade gracefully, but it’s not just about how something looks, it’s about how something works. What’s important are people’s priorities on different platforms. People on a phone and people on a computer shouldn’t necessarily see the same thing with different paint, they should see an entirely different picture. Different form, different function, and different priority.”*

Later in this document we will give you some key designing principles to building an excellent mobile experience. The first order of business is to get inside of your customers head – consider what they may be doing when they are out in the world and accessing your site. Are they looking for your physical location? Do they want to read about your pricing policies? Are

they comparison shopping? Getting into “mobile customer mode” is the first step in designing for the mobile web.

“We’ll just wait until mobile browsers can eventually handle the display of our desktop site”

The logic here is flawed for several reasons: there are currently about 5,000 mobile devices out there with equally as many permutations of hardware, OS and web browsers. There will simply never be 1 device for everyone. Google is going after the iPhone with a vengeance and we know there will be more devices not less on the horizon. With over 4 billion phones on every part of the planet, newer more feature rich phones are coming out every week, the ecology here tends towards more diversity not less. Second and probably more important, you have to consider the context of the mobile viewer. The kinds of things they will be doing with your site when they are on the go – not behind their desks- is much different than if they are accessing your site on the mobile web. It is wrong to take your larger desktop site and simply try to squeeze it down very small to fit a screen.

Awkward and Difficult Input Mechanisms

Consider Both Sides of the Equation

We’ve been talking about “output” or how your website will look on a small screen. However, it is just as important to consider the “input” side of this equation. While mobile keyboards have gotten better, they are nothing compared to ‘finger appropriate sized’ keys on a desktop computer. Tiny keys (soft or hard ones), stylists or small touch screens, you’ll want to think about what your customer has to go through just to interact with your site on mobile. Remember what it feels like when someone has to type in a long URL or fill out a lengthy form just to get information from you. Have you ever tried to get a train or plane schedule from the mobile web? It can be a labor intensive activity!



Web usability guru [Jacob Nielsen](#) released a study in July of this year. Here is what he found: In user testing, website use on mobile devices got very low scores, especially when users accessed "full" sites that weren't designed for mobile. <http://www.useit.com/alertbox/mobile-usability.html> The reason is that people use your site differently when they are on the go. Further as they are using your site, the actual device input matters a lot! Frustration comes easy when you are typing on a tiny keyboard and getting a unsatisfying response.

Consider keeping keystrokes to a minimum and giving access to the most important features or information up front. Use clickable titles to help people get to their information easier than scrolling

forever to find a topic. Stay away from lengthy forms, but do enable one click submits and simple landing page design. Learn from how people are using the site and let them help you understand how to make inputs to your site easier.

The Mode of the User When They Are Mobile

Designing for the user on the go:

Put yourself in the shoes of your average site visitor. If they were in an airport waiting for their flight, sitting by themselves at a restaurant surfing the mobile web, or on the family vacation, entering a strange city– what kinds of things they would want to do with your brand?

- Find your physical location?
- Read breaking news?
- Comparison shop for a considered purchase?
- Find out when your museum is open?
- Access a menu?
- Check the sports scores?
- Check out photos from your latest event?
- Review an agenda for an event?

Users Will Drive Your Best Mobile Design

After you have launched your mobile site, watch how users actually interact with the site by accessing analytics. Come back in a few weeks determine what are the most popular things people are doing on your site. For restaurants we often see it is the menu, for museums it is location and for news organizations often people may be reading one category of news items more than another (gossip vs. breaking news for example) We've seen changes made to RSS feed priority on the mobile site, making it work for the users after they showed that no one was accessing certain feeds and heavily hitting others. They increased the position of those feeds that were being accessed a lot and made for much happier mobile customers!

Getting Started Now: The 5 Basic Principles

A great design has a point of view and for mobile that point of view needs to consider the 3 Essential Drivers for Mobile Design:

- **Limited and hugely variable display capabilities**
- **Awkward and difficult input mechanisms**
- **The Mode of the User when they are mobile**

The Guiding Principles for Mobile Design:

- **Design for “Getting to the Point”:** Mobile People have little time to find information. They will be impatient if you put many slow loading pictures or graphics or if they can't figure out where to find information on your site in an instance. You don't want too much downloading to happen before they can get to your information.
- **Design for Efficiency:** Mobile viewers are often going for something specific, a function or bit of information from you. Rarely are they meandering or surfing the way someone might do on the desktop web. As you think about the most likely items that they will want to access from you in a mobile mode, you should consider putting those functions at the top of the site.
- **Design for Easy:** Mobile devices have difficult input (tiny keys, small touch screen for example), don't make your visitors struggle. If you can give them 1 click to call you- do it. Avoid convoluted paths to get to essential information (don't nest pages of information unnecessarily). If you can manage it, don't make them scroll down more than 3 times, this is a good rule of thumb when designing mobile.
- **Design for Widest Reach:** Although Smart Phone usage is on the rise and eventually will dominate the market, you really want to make sure even the smallest mobile devices can use your mobile site and have a great experience.
- **Don't Annoy:** Mobile devices have limited navigation. For example consider most phones only have up and down scrolling, not side to side. Because you are dealing with such small real estate, you'll want to get to the point, being concise is extremely important. Don't make people “weed” through a lot of unnecessary text.

What does the future hold for Mobile?

The forces that are changing the mobile landscape today include:

- Better bandwidth availability
- Favorable economics for consumer growth, lower 'data package' pricing
- More direct usage of the mobile web via search, less 'walled garden' model (via carriers)
- Continued heated competition in the hardware handset space

Some Predictions:

1. Expect more mobile device types – not less. There will not be 1 device type or operating system, rather there will be many competitors out there and that means a lot of variations to consider
2. Mobile commerce explodes: Expect more on the spot purchases and considered buys while mobile. There will be more abilities to conduct commerce using the mobile device as a wallet as well.
3. More innovation will lead to new ways to use the device. For example, the use of the QR bar code is in very early stages in both the US and Europe. However it is wildly popular in other parts of the world. Take a picture of this symbol and the phone auto directs you to a mobile landing page! It is a great input mechanism for the mobile web.
4. Better ways to manage multimedia – we love to take pictures or videos with our phones, expect better ways to manage those events, send them to friends and upload them to the Internet.
5. More video and entertainment: Mobile video usage is on the rise and it will only get more usage as bandwidth is available and inexpensive... and as handsets can handle it.