



January 2014 Whitepaper:

The Magic Logix Guide to Responsive Website Design



Magic Logix Guide to Responsive Web Design

Responsive Overview

The digital landscape is constantly changing. Less than a decade ago, the user experience browsing the web was perpetuated by desktop monitor size and display. As times and technology move forward, we've gone from desktop-specific viewing to the ability to access the web from a variety of devices, including smartphones, tablets, desktops and laptops – all at different screen resolutions.

Americans spend an average of 1.4 hours a day surfing the internet via mobile devices. Overall, this equates to **39%** of time online spent on a smartphone – if you want to think of this in terms of minutes, that's just about **40%**, so think of it as 2 out of every 5 minutes spent online are on a smartphone. Interestingly enough, **12%** of time spent online is by use of a tablet.

39%

Of Time Spent Online
is on a Smartphone

12%

Of Time Spent Online
is on a Tablet

43%

Of Media Consumed This
Year Will Be Digital

Overview Continued

These statistics are highly relevant because we're looking at a lot of time spent on varying screen resolutions to look at a website. This is where responsive design comes into play. Websites created with responsive design in mind means that the website adapts to a variety of screen resolutions, making them easily accessible no matter how you choose to visit the site. Therefore, you can view different versions of a website on your mobile phone, tablet, desktop or laptop – all of which conform to your screen.

When you visit a site on your mobile and it's properly formatted for the width and resolution of your screen, it's most likely responsive. Say you're looking at it in portrait format and you turn your phone to view the website in a landscape view and the screen automatically adjusts to it – this is no mistake, this happens with responsive design in mind. The website is responding to the different ways you can view the site on a different device and format. Have you ever tried looking at a site on a device that's not properly formatted for responsive nature? There's scrolling, there's pinching, maximizing, minimizing and more. This takes time and can have a negative impact on your business, as your clients need to get the information off your site as quickly and efficiently as possible.

Ecommerce & Smartphones

Before we continue further, it's also important to bring Ecommerce into the discussion. The rapid adoption of mobile commerce is a huge factor for responsive design. Let's take a look at some of these figures:



Ecommerce & Smartphone Stats

- + **67%** of consumers who use mobile phones for shopping are more likely to buy from a site they consider to be “mobile friendly”

Let that number sink in. 2/3 of your prospective mobile customers are going to be more likely to buy from you if you're taking their mobile viewing needs in mind. If you turn your back on them, you're losing a large portion of your customer base, and in turn you're losing revenue.

- + **52%** of mobile shoppers state that a bad mobile experience makes them less likely to engage with the company in the future

If you give your customers a bad mobile experience, you risk potentially running about half of them off. Your business can't risk that. Not now, not ever.

- + Online commerce using mobile devices shot up **81%** in 2012; by 2016, experts expect **24%** of all online commerce to be conducted on mobile devices

In the very distant future, that's a quarter of all online purchases taking place from the power of your palm.

- + During the 2012 holiday season, **70%** of shoppers used their mobile phones while in retail stores to help them with their purchase decisions

This can sometimes equate to additional sales in store, or product research in store by using mobile while shopping at the physical location – but the important takeaway here is that often times the research is done on mobile while the consumer is physically looking at it and then purchase occurs through an e-retailer instead. You want to get ahead of the game if you're in Ecommerce? Better make sure that site is responsive and mobile friendly.

Responsive Design vs. Mobile Adaptive Design

It only makes sense to have a responsive site with this many people accessing the web through such a wide variety of resources. In addition to responsive design, you may have also heard of mobile adaptive design. There are differences between the two, but in most cases responsive design is more beneficial than mobile adaptive design.

In some ways, adaptive design is a subset of responsive design. It displays the website according to certain predefined layouts for different devices and different screen widths. So basically, it's going to display the site one way if it detects a screen at 300 pixels, another way if it's at 600 pixels and so on.

There are still advantages to mobile adaptive design:

- + Faster page load time
- + Good user experience
- + Custom templates for specific devices (iPhone, Android, etc)
- + There can still be an “opt out” of the mobile site
Don't like the mobile version? Click and use the desktop version instead.



Responsive Design vs. Mobile Adaptive Design Continued

Even with these advantages, there are a few disadvantages to mobile-adaptive design:

+ It's not future proof

As technology changes, so do devices. The more time passes, the more we're going to see an influx of screen sizes. With that in mind, predefined layouts for 300 and 600 pixels is fine until a phone comes out with a 500 pixel resolution. Then the viewing experience is compromised.

+ Time spent on the site will suffer if you're not using one of the devices it can adapt to

+ More work is required up front

Adaptive design requires customizing several site layouts to suit different designs.

+ As far as Google is concerned, it's harder to index pages for search

Now you know the pros and cons of mobile adaptive design. The main difference between the two obviously is that responsive design gives the user a website that automatically conforms to the device.

Here are some positive advantages responsive design has over mobile adaptive design:

+ Responsive Design conforms directly to your device

Responsive design alleviates the problems mobile adaptive design has regarding different screen sizes. It makes sense to have your website immediately respond to the device so the site can be viewed how it was supposed to be viewed.

Responsive Design vs. Mobile Adaptive Design Continued

- + Designers spend less time working with responsive design as opposed to mobile adaptive design

Your designers won't have to take every single phone screen resolution into account to provide the user with the proper website viewing experience like they might in adaptive design.

- + Duplicate content issues are a thing of the past

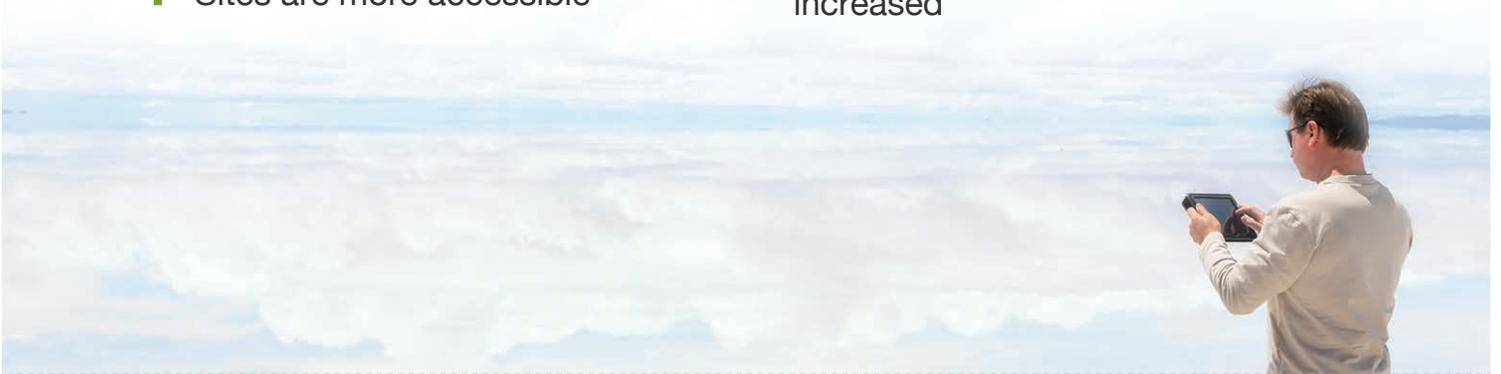
Responsive design is made possible by using technology such as CSS and HTML5. This allows you to avoid having a separate mobile website and can help alleviate duplicate content issues.

- + Indexing pages for Search is easier with responsive design

From digital marketing and SEO standpoints alone, this is a huge advantage responsive design features over mobile adaptive design. It's also endorsed by Google WebMaster Tools.

Things to Keep in Mind with Responsive Design

- + Sites are easier to update
- + Sites are easier to maintain
- + Sites are more accessible
- + Bandwidth and loading times are dramatically reduced
- + Cross-browser compatibility is also increased



Things to Keep in Mind with Responsive Design Continued

Another good rule of thumb when starting with responsive design is to use an emulator. Since users have different operating systems and browsers, you can utilize a variety of emulators on the web to show you how your site (or even the competition's website) may look across different browsers, devices and platforms.

There are many different free emulators that exist on the web, including [MobiReady](#) (which also checks dotMobi compliance and W3C mobile compliance), [Screenfly](#) (which checks a wide variety of platforms) and [Responsive Test](#) (a comprehensive tool that can be found at responsivetest.net). All of these websites are excellent starting points for checking your site's responsive potential. Sites such as the [Web Experience Toolkit](#) are open source projects led by the government of Canada that allow you to test virtually every aspect of your site and how it will perform, including grid systems, table enhancement, web feeds, accessibility responsibility breakdowns and more. In fact, a simple search query of "responsive web design emulators" will pull up about 270,000 results loaded with articles and resources to test your website's responsive capability.

[BrowserStack](#) is another great option for testing your website for cross-browser, cross-mobile compatibility. With both free and paid subscriptions available, his website has different pricing plans for interactive testing and debugging of websites for over 300 browsers and over 40 mobile environments. Their plans come with local testing, issue tracking and debugging tools. These plans range from solo and team plans to even enterprise level plans.



BrowserStack



responsive
test

Things to Keep in Mind with Responsive Design Continued

From a business standpoint, it's always very important to check your website for responsiveness. It's a way to be sure that you're ahead of the curve and that you're prepared for consumers to access your site regardless of the device or browser of their choosing. You don't necessarily have to use a paid subscription either. A lot of the free tools offered are more than efficient at helping test your website. Additionally, when looking at the design of your website, keep real world conditions in mind. Consumers are using devices in a variety of situations, so think of this when you sit down to design the site.

5 Responsive Design Best Practices for Designers



1. Define a Content Hierarchy - Ask yourself what content is most important, what the user should always see first. This allows you to evaluate what you can do without as the screen real estate changes.

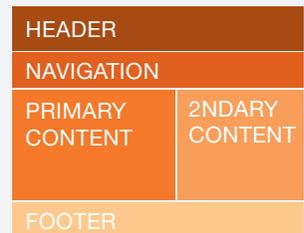
2. Layout Flexible Navigation - Determine how to effectively morph the navigation and subnavigation based upon the user's device.

3. Keep It Modular - Now that you know what content is most important, design a UI that easily adapts to shrinking screen sizes by combining columns & stacking sections. (Figure 1.1)

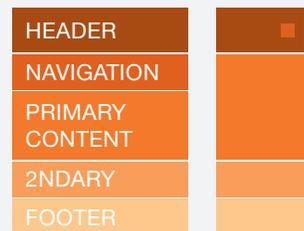
4. Cut the Content - Feel free to shed the least important content and/or UI elements when downsizing from desktop to mobile. A user's needs change according to which device they are using.

5. Mockup & Up Again - Don't assume the developer can read your mind and interpret your responsive vision. Supply them with a desktop, tablet and mobile mockup for all pages to avoid the guessing game.

FIGURE 1.1



DESKTOP



TABLET

MOBILE

5 Responsive Design Best Practices for Developers



1. **Use @media** - *This allows you to apply changes to your site's design based on the viewing size and capability of the device.*
2. **Use <meta name='viewport' content='width=device-width' />** - *This tells iOS to scale a webpage to a 1:1 pixel ratio when the page loads (in portrait mode).*
3. **Use Fluid Images** - *For example: `img { max-width: 100%; }`*
4. **Have a Flexible Layout** - *Utilize flexible grids and columns to organize content and relative width to adapt the viewport size.*
5. **Use {box-sizing: border-box}** - *This little snippet of CSS makes the browser calculate the width of the object including padding and border, as opposed to just content.*

Who's Currently Doing Responsive Design Right?



www.starbucks.com

Clean and minimal responsive design takes the shape of whatever device you choose to enjoy your latte with.



www.bostonglobe.com

Don't let your device limit your news intake. Easily access the Globe on your desktop, tablet or smartphone.

Responsive Design Done Right Continued



In Summary

Responsive design is the next logical step in your website. If your website isn't responsive, it needs to be as soon as possible. There are many different ways and devices that people use to access the web. As we become more and more plugged in, the adoption of mobile use to view and navigate the web becomes greater. You don't want to be left behind with a mediocre website that gives people a poor mobile user experience. If you don't create a responsive site, you will see less traffic, and potentially a decrease in sales. As mentioned, mobile adaptive sites are decent in some cases, but overall responsive sites are far superior.

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