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Responsive Design vs Mobile Site:
The Benefits and the Drawbacks

By Brian Middleton / May 2012

Responsive Design

Benefits

- Use the same code and content throughout
- Present a custom experience on a wide range of screen sizes

Drawbacks

- Different design variations need to be considered
- Some duplicated content may be necessary

Mobile Site

Benefits

- Easier, faster to implement and less expensive to launch
- Only the most essential information is presented in a streamlined interface

Drawbacks

- A separate silo of content is created that needs to be maintained
- Usually only targets one screen size
- Could result in higher maintenance costs over time

Determine Which Mobile Strategy Best Fits Your Website

When planning your mobile website strategy, you will want to ask yourself a few questions. Do you want your mobile site to operate separately from your current website? Would it be better, if you are starting from scratch, to build a site that could act as both a mobile and a desktop site? Can your current site be retrofitted to be more mobile friendly?


*Images not to scale

These are all important questions as you start down this road of mobile design. Your answers here will give you a good road map as to what kind of site you will be developing. If you are starting with an extensive existing site with a good deal of legacy code, you may want to go the route of creating a separate mobile site. If you are starting from scratch or have a smaller site, you may want to go the route of a responsive design. To help you through this decision, let's take a closer look at these different approaches and the pros and cons of each.

Learn More About Us

Planet Argon has be designing and developing web applications since 2002 and active members of the Ruby on Rails ecosystem since 2004! Check us out at: planetargon.com

What is Responsive Design?

Simply put, responsive design is a layout that will automatically adapt to different screen sizes. This means that if you are looking at the page on a desktop browser at a normal width, you will see a slightly different layout then if you were looking at it on a tablet or a smaller mobile device. This is accomplished with media queries in your CSS file. You can define different styles for various screen sizes. This way you can use one flexible layout to fill all the different roles and there is rarely duplication of content.
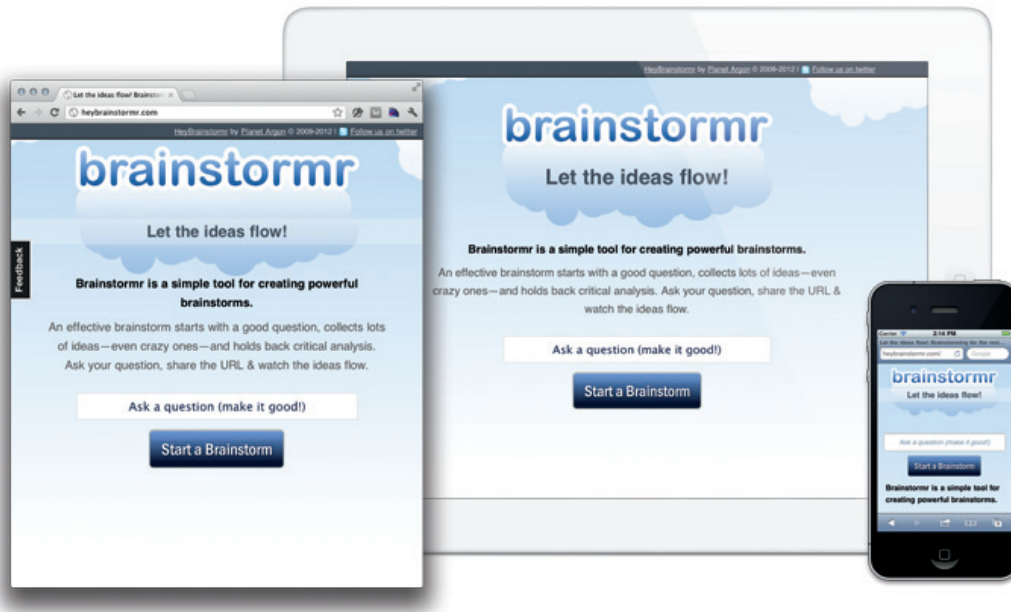
[One of our microsites, brainstormr, across three different platforms]

> **"** simply put, responsive design is a layout that will automatically adapt to different screen sizes.

Responsive Design Benefits

Benefit #1: Use the same code and content throughout

The greatest strength of responsive design is that you use the same code and content for all your layouts. Since only CSS is changing to create these different experiences, none of your content changes. This is the easiest to maintain as you are not introducing any extra content outside of your main site.

Benefit #2: Present a custom experience on a wide range of screen sizes

Another nice feature of responsive design is that it can be built to respond automatically to a number of different screen sizes. Typically, when considering a responsive design, you shoot for a phone, tablet and desktop-sized layout. This roughly covers all your bases. However, you can add code in your CSS for as many different layouts as you like. Keep in mind that each layout will be unique and may require extra design and development time to produce.

Responsive Design Drawbacks

Drawback #1: Different design variations need to be considered

One possible drawback to this approach is that for every different layout you want on your site, you need to consider various different design variations. This could slow production on a site and introduce a longer lead-time to get a project out the door.

Drawback #2: Some duplicated content may necessary

Some layouts will need to move content around to accommodate their design. It is true that this can be done with CSS, but sometimes you may need to move content to areas that CSS can't accommodate. In this case you may need to hide or show sections of content depending on the layout. The impact of this can be lessened by breaking these sections of content out into partials, but it still introduces an additional level of complexity to your project.

What is a Mobile Site?

In this approach, you are creating a separate website that visitors will see if they are on a mobile device. Usually, this is formatted for a phone-sized screen and employs some type of platform detection to route the visitors to the correct site. These sites might even be hosted on their own subdomain, like m.yourcompany.com. Typically when you are considering this approach, it is to complement an existing website that might be too extensive to redesign responsively or you just might need a subset of your site accessible for mobile users.

[contiki.com/mobile site]

" consider this approach to complement an existing website that might be too extensive to redesign

Mobile Site Benefits

Benefit #1 - Easier, faster to implement and less expensive to launch

A benefit of the mobile site is that you don't have to worry about any legacy code from your current site and you can start fresh with modern techniques and best practices. Since you don't have to worry about legacy code and content, a mobile site could be a much less expensive option. This is also a good transitional step and you can work from this new mobile site as a starting point for a redesign of your current website in the future.

Benefit #2 - Only the most essential information is presented in a streamlined interface

Another benefit of this approach is that you can customize a unique experience for mobile users based on what tasks are most popular on your site. For example, in designing a mobile site for one of our clients we identified that the most logical information to present to mobile users was the ability for them to search, view and book tours. The mobile site was built with these specific tasks in mind. In the future, the site can be extended to include more aspects of their business, but for now they have started off with a single focus for their mobile site.

Mobile Site Drawbacks

Drawback #1 - A separate silo of content is created that needs to be maintained

A major drawback of the mobile site approach is the need to maintain a separate silo of content independent from your main website. No matter how much of your content is handled via a CMS, you will likely have a good number of areas that will need to be managed manually between your main site and your mobile site. With this approach you will need to pay close attention to what changes are made in order to keep both your main site and mobile site consistent with current information.

Also, if you go the route of using a custom domain or subdomain, your two sources of content (mobile and desktop) might compete for search engine traffic. Marking the mobile content as 'noindex' with meta tags or using a robots.txt file to limit access to search engine web crawlers can help alleviate this problem.

Drawback #2 - Usually only targets one screen size

When building a mobile site, you are usually only targeting one screen size. Typically this is for a phone-sized device. This is limiting as there is little room to grow the site for multiple devices outside of creating another separate experience for a different screen size, such as a tablet device. It is possible, however, that you could build your mobile site utilizing certain responsive techniques and have it accommodate different screen sizes. A responsive mobile site would be a good solution and would probably put you in a good position to extend the site in the future.

Drawback #3 - Could result in higher maintenance costs over time

Since this technique introduces a separate silo of information and code to be maintained, it is possible that it could result in higher maintenance costs down the line as both your mobile site and your main site grow in complexity. Any change made on one version of the site (pricing, features, documentation) will need to be made on the other. Keeping up with these changes will add time and effort into all future revisions of both sites. The more content you can pull from a central source, such as a CMS, the better.

Wrap Up

So there you have it. The benefits and drawbacks of responsive design vs a mobile site. As you can see, there are a lot of aspects to consider when thinking about your mobile strategy and this is just the tip of the iceberg.

Put simply, if you have a large, existing site and are not able to currently redesign to accommodate mobile users, the mobile site is a step in the right direction. However, if you have a smaller site or are due for a redesign, a responsive approach is an excellent path to proceed down to fulfill your mobile goals.

We don't think there is a single solution for any mobile strategy. We have helped numerous clients work through these questions to come up with the best solution for their business.

Brian Middleton is a Front-end Developer at Planet Argon and has been pushing pixels for the last 10 years or so. When he is not banging out code, you may find him catching up on current and classic movies, or biking around Portland.
Learn more about Brian at planetargon.com/brian.

About Planet Argon

Planet Argon is a multidisciplinary team of design, development, and deployment practitioners. We help our clients implement ideas and grow their business.

Our passion for good design and solid development shows in our process, our projects and our ongoing relationships with our clients. Founded in 2002 as a one-man development house, Planet Argon has since matured into a full service web products and services consulting agency. We are located in the beautiful Pacific Northwest city of Portland, Oregon and our studio is conveniently nestled in one of the city's geekier neighborhoods.

To learn more about our core team members and view examples of some of our work, please visit our website at http://planetargon.com.