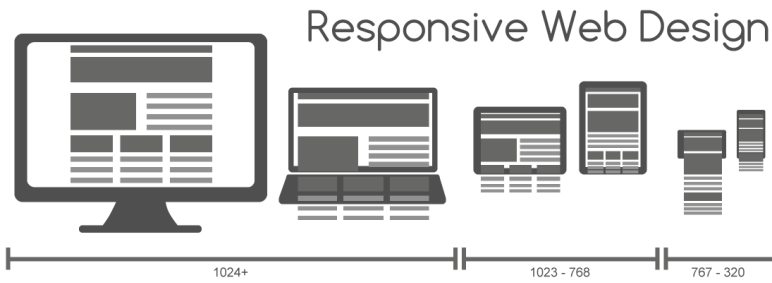**Theresa Agostinelli, Librarian, Instructional & Educational Services**
Monroe Township Public Library, theresacahill@hotmail

What is Responsive Web Design?

Responsive web sites adapt gracefully to different screen sizes. For example, a site may display in three columns on a laptop or desktop computer, in two columns on a tablet, and in one column on a smartphone. This is illustrated in the above image. It is using the same content, but displaying it differently depending on the width of the screen. Instead of creating a desktop version of a site, and then a mobile version, one site is used for all devices.

Web designers used to design for laptop and desktop computers. Now, with users accessing the Internet through laptops, desktop computers, smartphones, tablets, televisions, refrigerators, and more, many web designers have reversed their way of thinking. Instead of designing primarily for laptop and desktop users, and then creating a separate mobile app, many designers are now designing first for mobile users. Mobile first designs should be simpler than traditional layouts, since loading times can vary across devices. Designers may want to limit their use of images and enhance their designs through the use of white space, typography, and cascading style sheets (CSS.)

Advantages of Responsive Web Design

Responsive websites create a consistent user experience across various devices. Webmasters can make changes one time and those changes will carry over to all of their users. If the site is using a separate mobile app, changes must be made to the full website, as well as the mobile site, for users to see those changes. Search engines often have an easier time indexing responsive sites, as opposed to sites with different URLs and apps.

How are users accessing your site?

Web analytics programs can tell you a lot about your visitors, including the device that they are using to access your site. Google Analytics is a free and powerful program. Gather stats from your users with Google Analytics by inserting a snippet of code into your site.
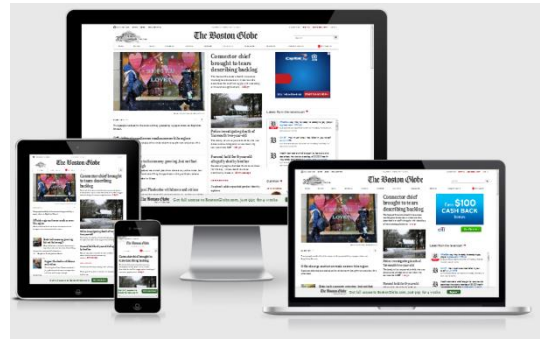
Here is a screenshot from a site that I maintain. It tells me that 25.71% of my visitors are using mobile devices. This number will surely grow as the use of mobile devices increases.

Mobile Device Info	Visits
	18 % of Total: 25.71% (70)
1. Apple iPad	12
2. Samsung GT-I9500 Galaxy S IV	5
3. Apple iPhone	1

Is it Responsive?

One way to see if a site is responsive is to resize your browser. If the site is responsive, three column layouts will often become two column layouts, and then go to one column as you decrease the browser. There will not be hidden content on the left and right sides of the screen that requires horizontal scrolling to view.

Am I Responsive http://ami.responsivedesign.is/ is a website that allows you to replicate the viewing experience of different devices. A screenshot from the Boston Globe's responsive website in Am I Responsive is displayed to the right.

How Do I Create a Responsive Website? Creating a responsive website can be a little complicated. Responsive websites utilize flexible, grid-based layouts, CSS3 media queries, and flexible image sizes to create sites that will adapt to different screen sizes.

Flexible Grid-Based Layouts Parts of the screen are designed using percentages or proportional values, rather than fixed values. This makes the page adaptable for different devices.

CSS3 Media Queries Users can create different style sheets for different devices and settings. Each style sheet will tell devices with different sized screens, viewports, orientations, and resolutions how they should display the site content. The viewport is the viewable area on a screen, excluding menus.

Flexible Images Image sizes will be represented by percentages so they can be easily resized.

Fortunately, there are free and fee-based responsive themes available at WordPress.com, WordPress.org, and Drupal.org. Excellent responsive themes for WordPress.org users are available at woothemes.com.

Responsive Web Design Resources

Responsive Web Design by Ethan Marcotte May 25, 2010
http://alistapart.com/article/responsive-web-design/
This is the article that introduced the concept of responsive web design to many readers.

What is Responsive Web Design? Infographic
http://theultralinx.com/2012/09/responsive-web-design-infographic.html

Responsive Design Sites: Higher Ed, Libraries, Notables compiled by Eric Rumsey
http://blog.lib.uiowa.edu/hardinmd/2012/05/03/responsive-design-sites-higher-ed-libraries-notables/

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