Why is there a need to build responsive web pages? Provide two to three benefits. Justify your rationale. Review your classmates' answers and offer additional feedback and insight.

Professor and class,

According to Mozilla, “Responsive web design (RWD) is a web design approach to make web pages render well on all screen sizes and resolutions while ensuring good usability.” (Mozilla, 2024) So responsive web design adjusts to the screen size of whatever device is used to access the application or site. This is achieved through fluid grids and images that are designed to float, never exceeding 100% width of the device.

There are many benefits of using responsive design in web development. It’s cost effective as it prevents the need to host two separate sites- one for desktop and one for mobile devices. It also greatly improves user experience because it doesn’t just cater to specific screen sizes. Fluid grids also make it much easier for developers to update the look of the website so less time is taken to adjust the size and placement of graphics.

References:

*Responsive Design.* (Jan 7, 2024) Mozilla <https://developer.mozilla.org/en-US/docs/Learn/CSS/CSS_layout/Responsive_Design>

Why is Responsive Design So Important?. (n.d.) WebFX <https://www.webfx.com/web-design/learn/why-responsive-design-important/>

Class, my first experience to Responsiveness was a long time ago and I quickly learned that this allows software to render on various devices, anything from a handheld to a very large screen monitor. My best experience was when I wrote software for a friends nephew's website. The site was initially using Angular as the frontend, PHP as middleware and MySQL backend database. Angular is (TypeScript - superset - Object Oriented versus Object-Based JavaScript).

The advantage to Responsiveness is I could write an application only using a programming language versus a mobile application specific to a platform. I didn't have to write three different applications, for instance:

- Angular - Front End

- Android - Android Devices only

- iPhone - Swift (trust me, not good at all. Swift is more convoluted than you can believe)

\*\*Question to the Class :-)\*\* What technologies are available that take advantage of Responsiveness technology.

Professor Estey,

Mobile apps and games definitely take full advantage of this technology. There are so many screen sizes for phones and tablets that some apps and games might be rendered useless on some screens without the use of responsive web design. That being said, touchscreen technology is used in all of these apps and games and thus requires responsive web design. If the application didn’t take the device size into consideration, touchscreen technology would not work properly. Either the screen might be too small to reach certain buttons or links or the touchscreen itself won’t align to the app. I don’t know if everyone knows what redbox is but I’ve come across some machines that had touchscreens that didn’t align with the screen which would make the user press the wrong movie when choosing one to rent. I could easily see this happening with apps on mobile devices if responsive web design isn’t used.

Jess,

Thank you for pointing out that responsive design probably doesn’t touch back end development. That’s a good observation. I can’t think of any way that the back end would be affected by this.

I’m not sure if this counts as responsive development, but years ago, I used to use Renpy, an engine for creating visual novels and there was something I dealt with that this topic reminds me of. I had basically redesigned the engine to work as a point-and-click game engine and realized that things wouldn’t be arranged the same on two different screens because I would design the game on my PC and test it on both the PC and a laptop. I remember having to quickly learn to use a relative placement (screen width – 50 instead of 750 for example) to fix this issue. It’s been a long time since I’ve used that engine or the python programming language but sometimes I look back on what I’ve done and it helps me better understand these topics.

Scott,

You’re absolutely right about how non-responsive design could frustrate users. I remember back before they started using responsive design for Facebook games. I’ve never been all that into Facebook games but my mom loves to play Farmville among others. I remember her getting frustrated due to being unable to play Farmville at full-screen. It had some issues with the resolution of her PC so it didn’t display right. She had looked it up and found a lot of other people complaining that it didn’t fit their phone or tablet screen correctly either. She was about to give up on the game before they updated it, making it responsive. Using responsive design prevents people from giving up on using an app or a game due to issues like that so that is definitely a plus.

Scott,

Lazy loading is an awesome feature for websites to have! I had to bookmark that video because I will absolutely be using it if I end up designing websites. I’ve also seen websites that use a single placeholder image for all loading images which I assume is done through lazy loading. I do like the idea of automating the pixelated images through code though- especially if the site has a large amount of images or if the images used change often.