Department of Information Technology

Limerick Institute of Technology

Web Development

Assignment 3

Critique of Responsive Website

Frances Lambe

K00264097

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1. Introduction

This report is a critique of a responsive website that was created based on the HTML, CSS and JavaScript knowledge acquired thus far by the website creator. The developer was required to redesign the Astronomy Ireland website in order to make it more usable and visually appealing for the user. Firstly, the developer examined the current website and identified its weaknesses based on existing, comparable websites using a PowerPoint presentation. The developer then created wireframes of the site to use as a guide of its design. It was then necessary for the developer to create an eight-page improved version of the Astronomy Ireland webpage using a responsive design. The aim of this report is to delve into the website's strengths and highlight its drawbacks based on the deliverables specified in the website creation guideline document. The outcome of this report will be to identify what can be learned in the creation of future websites.

2. Initial Requirements

As mentioned above, the developer was firstly required to create a PowerPoint presentation in order to highlight the website's weaknesses and complete some research on similar websites to identify what will work best for the design. It is at this point where the colour scheme, primary navigation pages and layout was decided. This aided the developer in providing a clear starting point and design template for the site.

3. Responsive Grid System.

Responsive websites are used to aid user usability by tailoring the view dependent on the device the user is accessing the site with. In this instance, the main indication of website responsiveness is the website header and primary navigation items which, like most websites are consistently styled for all pages aside from the highlighted navigation item that indicates what page the user is on. In order to tailor for the majority of modern screens such as wider tablets and desktops, it was decided that the max width be at 768px for the tablet screen and 1024px for the desktop screen, based on recent research by W3 schools.

The mobile version shows the header image on top which changes size when expanding the window. When the header image increases in size to tablet version the title moves into the header image and remains like that for the desktop view. A hamburger menu is used for the primary navigation options in mobile and tablet view. The hamburger options for the devices with smaller screens prevent the screen being taken up by menu options, this is commonly used in sites that have mobile and tablet versions and so no confusion should arise as a result of its presence. The distinct differences between the three viewpoints can be seen in image 1.

Image 1: In order of appearance: mobile, table and desktop views of the top of the website.

A drawback to this is the view the user sees when expanding and minimising the window on desktop as the transition from desktop down to tablet view is gradual and therefore can be seen as unsightly as seen in figure 2.

Image 2: Top of site transitioning from tablet to desktop view.

Another feature the developer used to enable site responsivity was the resizing of image as the window changes size, as shown in the header image of this site. This is done through the feature 'max width= 100%' when styling the images and ensures that the image is not too big for the screen when using a tablet or a mobile.

4. Screen Size and Responsiveness.

One of the biggest challenges the developer experienced when creating the responsive site was judging the best course of action with regard to the user's screen size. The screen size in use by the developer was 14-inch which is not the standard screen size that most other users would use for as their desktop. This mainly comes into play in the alignment of images with their titles. This is demonstrated in image 3 where a 14-inch screen is compared to a standard screen view. This shows that screen size can have an impact on what the user views and subsequently misalignment can be visible depending on screen size.

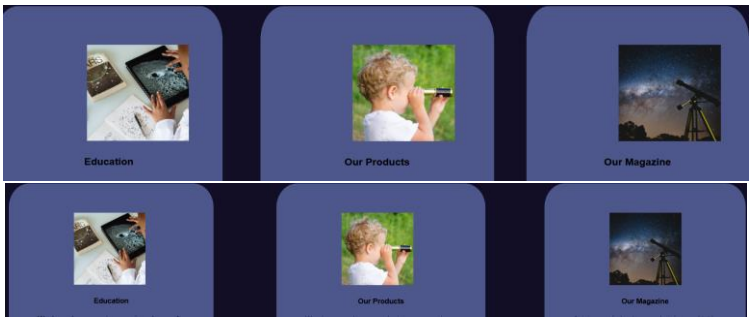

Image 3: 14- inch screen view (top) vs. zoomed out, better aligned version.

5. Making use of different layouts.

The use of different layouts allows the user to distinguish clearly where the user is currently located in the site without having to depend on primary navigation. One of the requirements of this site was to have at least three different layouts in order to provide variation throughout the site. The grid container layout having 12 columns in desktop view allowed for this to be completed easily.

The following images display three different grid layouts in desktop view. One drawback of different grid layouts being a requirement is too much or too little negative space depending on the content provided. In the careers section, as seen on image six, it is clear that outside margins are to a minimum while the space in between the event sections can arguably be seen as too large (image five) and so it may be preferred to have the view as shown in the index with 3 columns going across to give readable information with sufficient negative space as seen on image four.

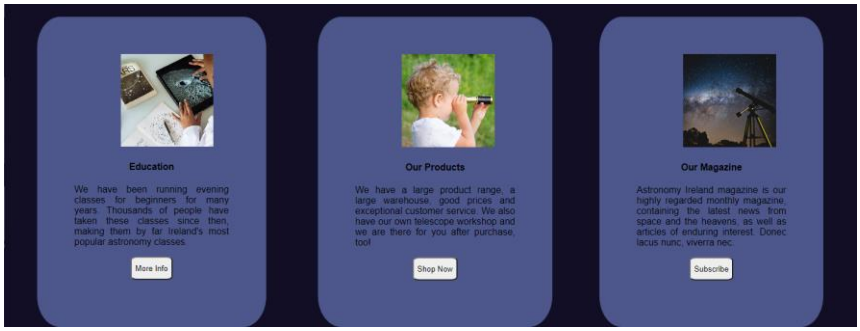

Image 4: grid layout on the index page.

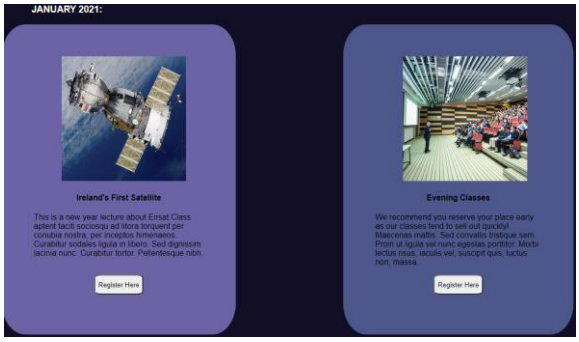

Image 5: grid layout on the events page.

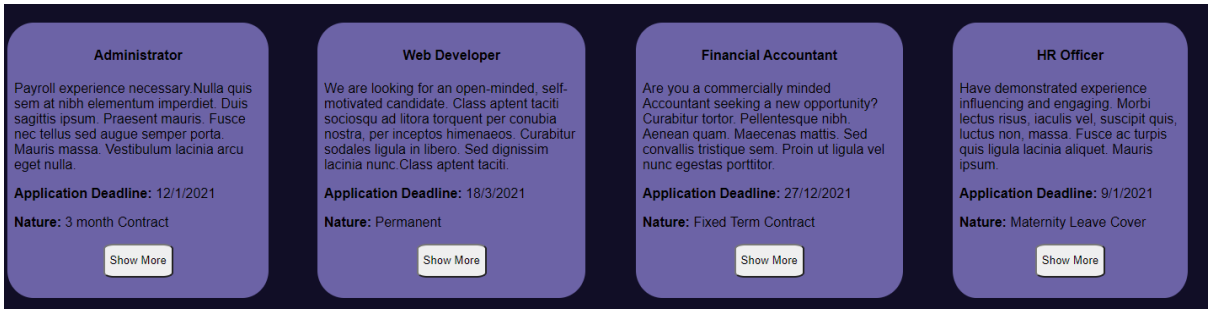

Image 6: grid layout on the careers page.

6. Different Fonts

As a means of adding variation to the site, it was required to make use of one google font as well as one OS font. The google font 'Open Sans' was the font of choice to feature in the 'Ask a question' form while the OS font in use was Arial with any other Sans Serif font being secondary. Both fonts were kept similar for accessibility purposes. A comparison of the two fonts can be seen in image seven.

Image 7: font variations used. Left: Open Sans. Right: Arial.

7. Style and Validation Pages

Two requirements of the site were having a style page to show how the developer's colour scheme arose and a validation page to demonstrate that all pages were validated fully in compliance with HTML and CSS standards. A snippet of both pages is shown in image eight. As shown in image eight, the colour scheme in use was based on a copyright free image of the night sky. This was put

together on the Adobe website and was done in order to keep in with the astronomy theme consistently throughout the site. The colour scheme used was also very similar to the colour of the header image which is the main focal point when the user enters the site.

As designed in the wireframes, the raster of validation images was displayed in 2 columns in the desktop view to continue with the site variation. It can be argued that the images were more difficult to read as a result.

Image 8: Style and validation pages.

8. Gallery Page

Another website requirement is that there be a gallery page with one large image and at least 4 thumbnail images as options to preview and view using the mouse as well as next and previous options. JavaScript was used in order for the functionality of changing the large image to be possible. To make the most of space, the developer opted to include nine thumbnails as options of pictures to view and to make the window look more appealing overall.

Unfortunately, depending on screen height, these nine thumbnails may not be viewable on screen with the large image included causing usability issues with the previous and next options also. This would primarily be the case for mobile and tablet users which are the primary internet access devices at present. This is something that will be reviewed next time the developer creates a site using the functions shown on image nine.

Image 9: Gallery view.

As a requirement for the website, it was ensured that all gallery thumbnail images were of the same width and height. The main image at the top, which changed depending on the thumbnail

option selected, remained the same size for all images. This is important for consistency and prevents any issued with uneven margins/rows.

9. Input Validation

Input validation performs a check on the data entered by the user in order to ensure that the data entered is in the correct format so that no errors have been made on the user's end. This is useful if contact information is stored. Input validation was completed using a validate() function on JavaScript and an alert would arise to inform the user that the information was entered in an incorrect manner as shown in image ten . This would prevent the user from submitting the form and thus prevent incorrect information being collected. The input validation piece requested at least one regular expression, one numeric validation and comparing two fields. This is demonstrated in the below alerts that show what happens when the user does not enter anything in the name section, when the user enters letters in the age section and when two email addresses entered do not match.

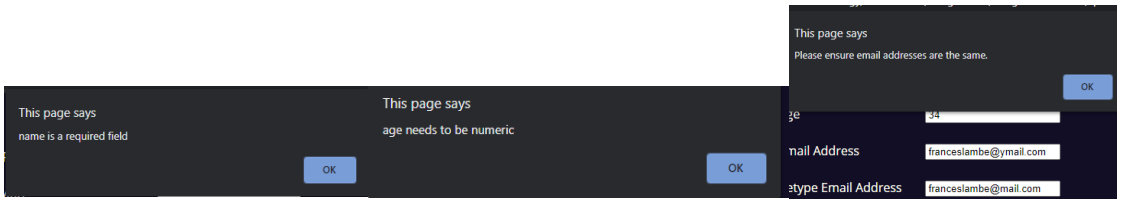

Image 10: In order of appearance, regular expression, numeric validation and comparing two entries.

10. HTML Local Storage & JavaScript cookie

Local storage was implemented through the "join our club" function that appeared on the footer of every page. The appearance of this function on the footer meant the user would be reminded of this offer on every page of the site. One of the main drawbacks of having the Join our club function on every page is that even on the confirmation page that confirms receipt of the users' request to join the club shows the 'Join or club' section also. This can invoke confusion as to whether the user was genuinely successful in the join request. The confirmation message as shown on image eleven, is a page in itself and does not load until the user clicks the 'okay' message created by the setCookie() function as seen below. A requirement was to have the two pieces of user information provided on the confirmation page which can be seen as the user's name and email address.

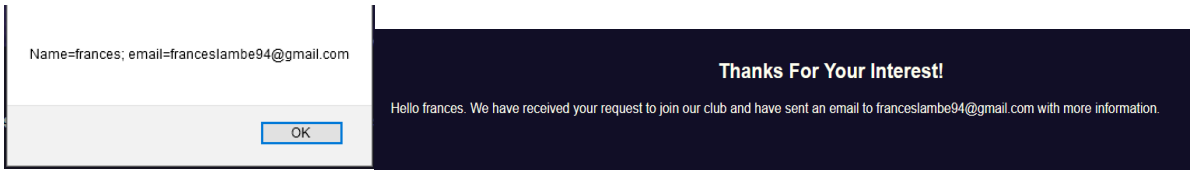

Image 11: Cookie messages when completing the 'Join Our Club' form.

11. Website Text

As the creation of the website was primarily to assess the developer's knowledge of HTML, CSS and JavaScript, the content in the form of text contained in the site was not important. As a result, Lorem Ipsum or dummy text was used for the most part in the website's text. That being said, in order to give the paragraph context on what the developer aims to discuss, the opening sentence will describe the paragraph. This was done throughout the site and is shown in image twelve.

Image 12: First sentence explaining paragraph followed by Lorem Ipsum

12. Media Source Information

It was a requirement for the website creator to ensure that all media, images and otherwise, were copyright free and that it was stated so as a html comment. The image or icon source was also provided to ensure this, as demonstrated on image thirteen.

```
<!---all social media icons sourced from  https://www.w3schools.com/
and are copyright free--->
```

Image 13: Social media icons' html comment on source information.

13. Headings and Stylesheet.

It is noticeable that on certain pages headings jump from h2 to h4, this is because the site uses a single stylesheet to keep in with consistency throughout the pages and certain pages contain a h3 while others do not. It is best practice to avoid this however using separate stylesheets per page on the site can be a lot more time consuming for the creator.

14. Hidden HTML Validation Error

Image fourteen displays the error message that was filtered out on all html validation screenshots and this is to do with the 'meta viewport' tag that is in place to allow for the responsivity of the site. When research was completed on this error message it was advised to ignore this error as removing this tag will not allow the user to resize the window, this is something that needs to be allowed in order for the responsiveness to take place. As a result of this, each page on the site technically was not HTML validated.

Image 14: html error on permission to resize documents.

15. Revisiting Wireframes

As mentioned in the introduction, Wireframes were required in the initial design process in order for the developer to have a template on what each page may look like. Due to spacing, amount of content and aesthetics, there are a number of instances where it is just not possible for the website to look the same as the initial wireframe design and so image fifteen is an instance of how the Wireframe needed to be redesigned after the design of the webpage. While this can be more time consuming, it is a very common task for a web developer. Additionally, most of the wireframes were redesigned upon the release of a new Wireframe guide that became available for the developer, this is apparent in the changes also.

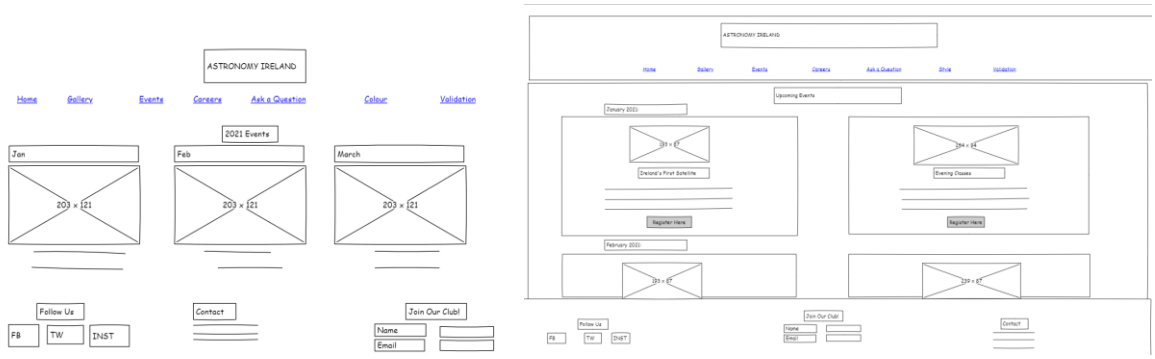

Image 15 before and after Wireframes.

16. Creating a Published Website

The final requirement for creating the website was to publish the site using 'atspace.com'. Publishing the site makes it accessible to the public and allows the developer to experience the real-world use of website creation. Publishing the finished product is an appropriate final step in the creation of this responsive design.

17. Conclusion

It has been clearly defined in this critique that the deliverables were met to the best of the developer's ability, the website layout was clear and consistent, and the guidelines were adhered to regarding the copyright free media in use. There are evident strengths to the website and its creation however, there are also obvious shortcomings that let the website down. The main overall critique was the developer's uncertainty in screen size and how things would look on larger desktop screens. Upon reflection of the above evidence, it is evident that many of these errors were as a result of a lack of experience on the developer's side and there are several points to be taken into consideration in future. In summation, given the time and effort put into the site, the creation of the responsive site was a worthwhile experience for the developer.