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INVESTIGATION INTO RESPONSIVE WEB APPLICATIONS FOR PROGRESSING ONLINE EXPERIENCES

WIKIPEDIA V2
The Free Encyclopedia
https://wikipediav2.uk/

Introduction

This project aims to improve the user interface look and accessibility of an existing web application. In today's digital age, the importance of creating an intuitive and user-friendly interface cannot be overstated. A well-designed user interface (UI) can significantly enhance the user experience, leading to increased engagement, satisfaction, and ultimately, higher usage rates.

This project focuses on improving the user interfaces and accessibility of an existing web application. This is achieved using various design principles, including colour theory, typography, layout, and interaction design, to create an aesthetically pleasing and intuitive interface. Additionally, the redesign follows accessibility guidelines outlined by industry experts.

Aim & Objectives

Project Aim:

- Improve and progress existing web-based applications.
- Maintain the integrity of the original designs.
- Improve accessibility.
- Learn some cool stuff.

Project Objectives:

1. Research the field of web-based applications and select a site to redesign.
2. Conduct user examination on an existing web application.
3. Design and Develop a new user interface based on previous research and testing.
4. Conduct user examination on the new design and extracting the project's conclusion.

Research Overview

Literature Review:

- Web Applications
- Access Devices - 58% of all internet traffic is from mobile devices.
- Frameworks - Bootstrap worlds most popular HTML / CSS framework.
- Fundamentals of UX / UI / HCI - Schneiderman's 8 golden rules for interfaces.

Case Studies

- Using dark mode - Terra improving user engagement.
- Accessibility testing - Lighthouse / Axe Developer tools.
- Choosing a web application to redesign - Wikipedia.

Other Research

- User surveys
- Software
- Risks
- Concepts

References

I. W. Stats, "INTERNET USAGE STATISTICS," 01 01 2022. [Online]. Available: https://internetworldstats.com/stats.htm. [Accessed 07 11 2022].

"Top 5 CSS Frameworks for Developers and Designers," BrowserStack, 25 03 2022. [Online]. Available: https://www.browserstack.com/guide/top-css-frameworks. [Accessed 07 11 2022].

B. Shneiderman, "8 golden rules," in The New ABCs of Research: Achieving Breakthrough Collaborations, 2016.

D. Renzulli, A. C. Bandarra and G. M. de Souza, "How Terra improved user engagement thanks to Dark Mode," web.dev, 18 Dec 2021. [Online]. Available: https://web.dev/terra-dark-mode/. [Accessed 29 09 2022].

S. Perez, "YouTube's dark theme has started gradually rolling out to Android," techcrunch, 30 July , 2018. [Online].

S. Moore, "WikipediaV2," [Online]. Available: https://wikipediav2.uk/.

"User reviews of wikipedia v2," [Online]. Available: https://forms.gle/8rM5wu7ypf7ZopTX8.

Development

When developing the application, the author made use of version control technology - GitHub, allowing the author to track and manage different versions of the web application. This was especially useful when testing different versions of the site as GitHub allows you to create "branches" of the same application. In the early days of the project the author was also using GitHub pages to host and display the prototype online.

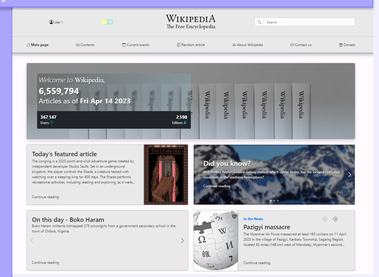


First Git Commit



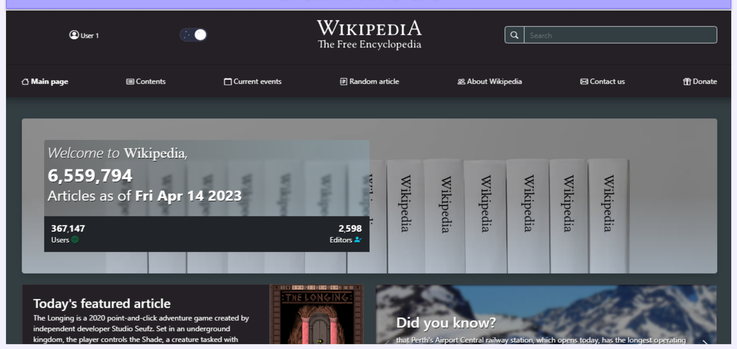
The initial prototype was a rudimentary representation of the vision, with basic design and limited features.

Latest Git Commit



The most recent version of the prototype, features a refined design, advanced functionalities, and a polished user experience

Dark mode

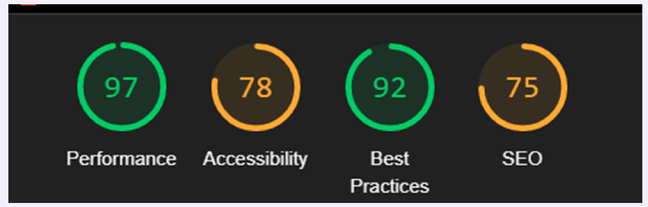


Testing

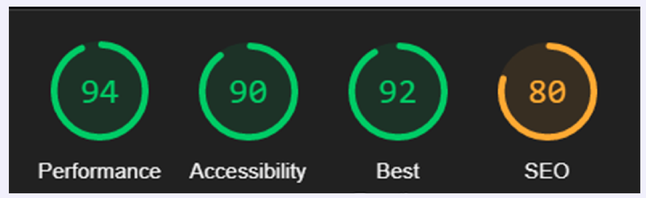
This section contains testing of the original web application using tools such as Lighthouse and AXE developer tools. By using these tools to analyse the original Wikipedia, the author was able to directly compare the numbers generated by these tools to the new design (WikipediaV2).

Accessibility testing

Original Site:



New Site:



User Response

- Newer version seems more user friendly and modern, dark mode better for night time scrolling
- Mordern look and darkmode
- its refreshing and new
- It's much easier to read and less cluttered
- The reimagined design of Wikipedia brings a fresh take to the popular site. Allowing for a more accessible and user friendly experience that can help lead Wikipedia into the ever evolving world of Web3.0 and beyond.
- Far more concise, modern and user friendly. Makes you want to explore the site, not click off it
- It's visually more appealing than the current site
- feels more user friendly

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