

Smithsonian Institution's Korea Gallery: Art and Web Development

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ABSTRACT

The Smithsonian Institute is overseeing the renovation of the Korean Heritage Foundation. As an intern at the Smithsonian Institute, I contributed to this renovation project, which consisted of two main parts: rebuilding the website for the Korean Heritage Foundation and digitally presenting the Smithsonian's Korea Gallery. Programming languages will be utilized for further development of the website. The goal is to aesthetically introduce website visitors to the Korean Heritage Foundation. Further detailed research, such as creating a virtual version of the gallery, is needed. The final step in the implementation process involves publishing the website, which necessitates hosting the website and establishing a connection to the server side.

1. INTRODUCTION

The Korean Heritage Foundation is a non-profit organization dedicated to the preservation and promotion of Korean culture and heritage. It has entered into a partnership with the Smithsonian Institute, an organization committed to advancing knowledge and preserving world cultures. This partnership reflects a commitment to fostering a deeper understanding and taking steps to spread Korean culture globally. The Smithsonian Institute has been at the forefront of cultural preservation and education with its vast network of museums, research centers, and affiliates. To bridge

cultural divides and promote international cultural exchanges, the Smithsonian seeks to enhance Korean Gallery and innovation and digital transformation of the Korean Heritage Foundation.

As an intern with the position of IT researcher and website manager, my role is to first assist in the rebuilding of the Korean Heritage Foundation's website and to aid in the digital presentation of the Smithsonian's Korea Gallery. The reconstruction of the website is required, not just as a technical task but as a creative showcase to aesthetically represent the essence of the Korean Heritage Foundation. By employing advanced programming languages and web development techniques, I aimed to create a digital platform that not only informs but also engages and inspires visitors.

The digital presentation of the Gallery presented a different set of challenges and opportunities. The objective was to transcend the limitations of physical space and bring the gallery to a global audience through digital means. This involved detailed research and the creation of a virtual version of the gallery, enabling online visitors to explore Korean culture in an immersive and interactive environment.

2. RELATED WORKS

Integration of cultural heritage with digital technology is increasingly common across

different institutions. Two notable examples are the British Museum's online collection and Google Arts & Culture's virtual tours. These platforms have set benchmarks for how digital tools can be employed to enhance the accessibility and engagement of cultural and historical content.

The British Museum has demonstrated the potential of websites to act as educational and engaging platforms for global audiences through its digital collection. By providing access to thousands of artifacts with detailed descriptions, high-resolution images, and thematic collections, the museum has created a website for digital cultural preservation and education. This approach directly informed our strategy for the Korean Heritage Foundation website, emphasizing the importance of user engagement through meaningful content and interactive features (The British Museum, 2024).

Google Arts & Culture's partnership with thousands of museums and cultural institutions to offer virtual tours and online exhibitions has revolutionized the way people interact with art and culture. Their use of immersive technologies, such as 360-degree views and virtual reality, provides a framework for our digital presentation of the Smithsonian's Korea Gallery. The virtual project called Pocket Galleries in Google Arts & Culture showcases the importance of technological innovation in making cultural heritage accessible and engaging for a global audience (Google Arts & Culture, 2024).

3. PROJECT DESIGN

Creating a website requires a complete architectural design plan. Sketching the website by hand is a primitive method, but it is the most effective way to intuitively showcase the UI/UX objectives. By carefully designing and implementing the website, I

aim to effectively engage global audiences with Korean culture and history.

The website will feature content that briefly illustrates the website's purpose through sliding images on the main page. The current Korean Heritage Foundation website employs this technique to display content and capture users' attention. Research into other website designs has revealed that this method is widely utilized due to its dynamic and engaging nature. As part of the design strategy, the images will be carefully curated to reflect the richness of Korean culture and history, drawing in a diverse audience with visuals that are both informative and captivating.

The navigation bar plays important features in the website design. Deciding where to navigate users will increase usability of website, and prevent error cases. I want this website to follow the simplicity principle, only including elements that are needed; so the navigation bar will consist of five options: 1. Main 2. Project 3. History 4. About Us 5. Contact. 5. Contact could be replaced to the Smithsonian's Korea Gallery section in the future, but currently that feature is unavailable and other engineers would be needed for implementation.

The Project section will showcase the Korean Heritage Foundation's projects in a gallery view. The design is still under consideration, as I am reviewing the project photos, but my goal is to animate the images for aesthetic purposes. This animation will activate when users scroll down the website. Further design research and implementation are required.

The Korean Heritage Foundation was established on May 24th, 1999. The timeline of the organization's journey will be featured in the History tab. Within this tab, I also plan to highlight the life story of the President of

the Korean Heritage Foundation, President Yoon, which is integral to understanding the Foundation's motivations and origins.

The About Us section will present individuals who have contributed to the Korean Heritage Foundation and this project. I intend to mainly feature President Yoon and the founders of this foundation. The Smithsonian director, Dr. Paul Michael Taylor; Professor Panagiotis Apostolellis, an advisor to this project; and I will be listed as contributors. Implementing a card-like interface where users can swipe left or right to view the contributors will achieve an aesthetically pleasing visualization.

The Contact section will provide the location of the Korean Heritage Foundation and its social media platforms, such as Facebook and Instagram. Using icons with hyperlinks will enable users to visit the corresponding social media pages. I will also implement the Google Maps API to provide a visual representation of the Korean Heritage Foundation's location for easy navigation.

The ultimate goal is replacing the current Korean Heritage Foundation website with this one. The first task I was assigned was to create a static website that shows structure of the website and design. Next steps will engage server side and client side implementation, which requires PHP and database set up.

4. ANTICIPATED RESULTS

From the discussion regarding the website publication and the next steps of this project with a director of the Smithsonian Institute, they will keep my website structure with some design modifications in the second phase of the project, server-side implementation. The assigned requirements were, first, to engage global audiences with Korean culture and history, second, to create

an aesthetic & structured website, and third, to organize code well for further modification with other teammates.

From the meeting with the technical team at the Korean Heritage Foundation, who developed the current website, the administrators have approved my design. It engages global audiences by introducing Korean culture and history, and the code is well-structured to implement server and client-side setup.

5. CONCLUSION

In this discussion, I have delved into the specifics of my contributions to the key components of the project, highlighting the technical and creative processes involved, the challenges encountered, and the solutions developed. Throughout the project, where implementing Korean Cultures and History on the website, I recalled the importance of promoting our country's values to diverse audiences. Korea, especially, is a country that sells its culture; K-pop, arts, entertainment, etc. By promoting Korea's unique cultures to audiences, it is possible to see a proportional relationship; where more audience interest increases, more cultural values become significant.

Culture itself is heading toward the future from the present. However, Korean history remains in the past, which plays a significant role in forming Korea itself. Importing those historical facts into the website can enable the audience to understand how Korea's present was formed. This journey provided me an opportunity to realize Korean values, to show appreciation for my nationality, and to understand how to aim for audience interest.

6. FUTURE WORK

Building a complete website involves many steps before it can be published to the world. The parts that must be implemented include

server and client-side setup, database connection, website testing, and the implementation of a virtual version of the gallery.

The server and client-side setup and database connection will be implemented throughout the summer with teammates assigned to me by the Smithsonian Institute. The part that needs improvement is incorporating more aesthetic features, which requires a high level of skill in CSS and JavaScript. These modifications will also be made over the summer.

REFERENCES

British Museum. (n.d.). Retrieved April 11, 2024 <https://www.britishmuseum.org/>

Google Arts & Culture. (2024). *Klimt vs. Klimt*.
<https://g.co/arts/xRbTuhDzWbPMetr39>