Mazed

Inconsistency In
International Web Design
and How To Navigate It

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Table of Contents

Abstract

Over the past few years, web design has undergone significant advancements, resulting in user-friendly and visually appealing websites. However, this rapid growth has forced companies and countries to adapt quickly, leading to diverse design elements that may cause inconsistency and confusion. In particular, **Foreign web users struggle to navigate Japanese websites due to dated web design and lack of coherency, leading to a loss of tourism, business, and expatriation.** I experienced this firsthand when living abroad in Japan for two years. Many websites were difficult to navigate because of the differences in design and navigation, often leading me to give up on my objective.

This research addresses this challenge by analyzing current websites, identifying design patterns, and proposing a navigational tool to enhance user experience. It focuses on developing a navigation tool to help users comfortably explore diverse websites worldwide. Users can easily understand and absorb information by identifying and highlighting similarities in design choices across various sites. This approach aims to foster a connection between users and websites, promoting user retention and enabling sites to thrive in a competitive digital landscape. This paper also discusses localization and internationalization's impact on user feedback, compares Japanese and American web navigation, and explores different types of navigation design. It underscores the influence of cultural factors on website usability and user experience, emphasizing the need for user-centered design.

This research emphasizes the challenges in international web design and navigation, as well as highlights the importance of inclusive design, considering language, symbols, formats, and functionality. Stakeholders, including individuals, institutions, and society, stand to benefit from improved website usability, fostering cross-cultural interactions and transactions. By promoting better practices and inclusivity, the research seeks to enhance website design decisions and create user-friendly experiences for diverse audiences. It uses questionnaires, ethnographic research, and visual research to gather insights into localized website challenges. These methods aim to understand user perspectives, cultural influences, and visual design elements, contributing to comprehensive recommendations.
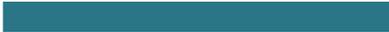
Research Problem

Web design has progressed immensely in the past few years, creating easy-to-use and aesthetically pleasing websites. Yet with this massive growth, in a very short time, some companies and even entire countries have had to adapt quickly; this has made some interesting design elements in web design which can create inconsistency and confusion for some. Using current websites and their design choices we can see and create a way to navigate the different designs and find the similarities to provide a comfortable experience for users.

01

Objectives

The objective of this project is to conduct an in-depth study on the inconsistencies in international web design and navigation, with the aim of educating and raising awareness among stakeholders. By addressing the challenges faced by both local and international users, the project seeks to enable stakeholders to design websites that facilitate easy navigation for all users. The research will delve into the intricacies of international web design, examining the factors that contribute to navigational difficulties for users from different cultural backgrounds. By understanding these challenges, stakeholders will gain valuable insights and knowledge to inform their website design decisions. The project's findings will be instrumental in promoting better practices in web design, advocating for the inclusion of features and functionalities that cater to both local and international users. This may

involve providing options for navigational assistance, implementing intuitive interface designs, and incorporating language considerations. By fostering an inclusive web design approach, stakeholders can create websites that offer a seamless and user-friendly experience for both local and international users. This, in turn, will enhance business transactions, as users will be more likely to engage with and navigate through websites effectively. This paper will address several following research questions.

Research Questions

- **What are the differences in recall accuracy and time spent observing websites between Japanese and US participants?**

- **How do Japanese participants approach website information differently from US participants?**

- **How important are culturally sensitive design approaches?**

- **What questions should we raise regarding the measurement of performance across different cultures to improve navigation?**

- **What challenges the relationship between visual attention patterns and information-seeking behavior?**

Knowledge Gap

To gain insight into the challenges faced by foreigners navigating localized websites in Japan and inform the project's deliverables, the thesis student will conduct qualitative research. This research will involve administering questionnaires and organizing focus groups with foreigners residing and working in Japan. By gathering firsthand experiences and perspectives, the student aims to understand the specific navigational difficulties encountered by this target group.

Additionally, the student will conduct research on websites in both America and Japan. This comparative analysis will provide valuable insights into the differences in web design practices between these two countries. By examining various aspects of website design, such as layout, navigation, and visual elements, the student will be able to identify key considerations for creating effective and user-friendly internationalized websites. These insights will guide the student in developing appropriate strategies and recommendations for creating user-friendly and culturally sensitive websites that cater to the needs of international users.

Significance

Creating this path to navigate and understand the many different sites worldwide will allow users to feel comfortable and in control when searching online. They will be able to use the navigational tool to see the similarities with sites they usually frequent and be able to absorb the necessary information. Users will be able to connect and understand the websites, making them stick with them and creating an opportunity for that site to flourish. For a website to connect, the audience needs to know what they are looking at and how to decipher the information provided. Connection is especially important when an audience can get distracted, move quickly through a webpage, or not understand. Websites need to be able to connect to the user and allow them to understand what is going on so they can understand the different features. With this research, I will find and dissect the different web designs throughout some countries and older businesses, allowing me to find the similarities and the problems that need to be addressed. Then using the information found, I will create a website that demonstrates the current navigational choices and point out the similarities most web designs contain. This allows future users to understand what they are looking at and how to navigate most websites to find what they want.

Research Methods

Image Boards

This project will benefit from image boards since they serve as a valuable research tool, complementing visual analysis by compiling images that reflect the subject's aesthetic under scrutiny. Widely utilized by graphic and interior designers, these boards offer a focal point for specific aesthetics or target groups, aiding in client communication and audience engagement.

My decision to employ this method stems from a desire to gain deeper insights into Japanese and International Websites through visually curated collections. By assembling images from highly frequented sites, both localized and international, I aim to discern prevalent design trends, navigational preferences, and the impact of AI translation. These image boards will provide invaluable clarity on my project's most suitable visual aesthetic.

The research methodology entails a meticulous visual analysis of each website's layout, including the positioning of icons, images, and articles and the prevalence of advertisements. By examining these elements collectively, I aim to develop a comprehensive understanding of each website's visual aesthetic. Ultimately, this knowledge will inform the creation of an integrated website that caters to local and international audiences, ensuring a harmonious user experience for all.

02

Ethnographic Research

Incorporating ethnographic research into the thesis will assist in gaining a deeper understanding of what influences localized websites and navigation in Japan. Using written studies of Japanese culture and the student's personal experiences of living in Japan for two years will allow the research to dive into the decision-making process behind the creation of Japanese websites. The ethnographic research will enable the student to observe and analyze the cultural context surrounding website design and navigation in Japan. Through this approach, the student will gain insights into the local beliefs, values, traditions, and social norms that impact website development and user experience.

Visual Research

The thesis will benefit from visual research by comparing the web designs that incorporate localized designs and interfaces versus the web designs that use an internationalized design. By visually examining a range of websites, the research will explore the various elements and features employed in localized and internationalized designs. This analysis will consider factors such as layout, navigation, symbols, language, and cultural markers utilized in the user interface. By comparing and contrasting these design approaches, the thesis will gain a deeper understanding of how websites cater to different audiences and whether there is a shift towards internationalized designs for global users. This analysis will provide a comprehensive understanding of how website design is utilized in different fields and shed light on the extent to which websites catering to international users employ an internationalized user interface. The insights gained from this research will inform the thesis's findings and recommendations and contribute to the advancement of effective website design strategies in diverse cultural contexts.

Purpose

The purpose of the visual solution is to provide a comprehensive showcase of the differences between localized and internationalized website design in Japan. It aims to raise awareness among foreign individuals residing in Japan and companies that cater to or collaborate with these individuals. The ultimate goal is to create an opportunity for the development of new design and navigational properties that assist all users, whether they are international or local. To achieve this outcome, the visual solution will incorporate successful research-based design principles. It will serve as a resource that businesses and individuals can access to gain a better understanding of how to navigate Japanese websites with ease. The deliverables will primarily be in digital format, allowing for widespread distribution and accessibility.

Web Design

- **Design a localized website that is catered to domestic individuals living in Japan.**

- **Design an internationalized website that is able to cater to international individuals living in Japan.**

- **Combine these two sites into one.**

Summary of Findings

These research methods express the importance of website design and navigation throughout different cultures. The study covers how localization and internationalization control user feedback positively or negatively. The review compares the differences between Japanese and American web navigation and design, demonstrating the effect of culturally influenced design. Then, it concludes with how foreign users living in Japan can learn about navigating foreign websites and how companies can build their sites to assist the user.

Website Navigation

Throughout these sources, they discuss how the main objective of navigation design is to create a seamless and effortless user experience when accessing information. The ideal navigation should be seamlessly integrated, providing access to thousands of pages, establishing connections between content pieces, and ensuring smooth interactions. For this ideal navigation, there are three different types that can be used:

Structural Navigation:
This type of navigation connects pages based on the website's hierarchical structure. It allows users to move between pages within the same hierarchy level, such as moving to the page directly above or below the current page.

Associative Navigation:
Associative navigation establishes connections between pages with similar topics or content, regardless of their position within the site's hierarchy. The links in this type of navigation often transcend structural boundaries.

Utility Navigation:
Utility navigation links pages and features that assist users in utilizing the website itself. These links may exist outside the primary hierarchy of the site and are connected solely based on their function rather than their location or content. (Kalbach 4.1, 2007)

With these three groups, websites can create a place for users to seamlessly search for what they need using design. Yet, successful website navigation is also influenced by other factors, including age, subject matter knowledge, working memory, reading abilities, spatial abilities, and processing speed. This creates an issue of having a continuous positive user experience because web navigation is consistently changing with time and new research to accommodate most users, leaving those familiar with a different navigation style a step behind.

Web Site Design Characteristics

Elements of website usability play a crucial role in engaging users and enhancing their overall experience. According to Fogg and his colleagues at the Stanford Persuasive Technology Lab, the visual design of a website significantly influences users' assessment of its credibility. In a large-scale study, they found that 46.1% of surveyed consumers judged the credibility of a site based on its overall visual design, which encompassed believability, perceived quality, trustworthiness, and level of expertise. (Fogg & Tseng 80, 1999)

As the Internet becomes an increasingly important business tool, it is necessary to address issues that go beyond easily quantifiable factors like utility and performance. Winograd foresaw this shift in 1996, highlighting the

need to design for the full range of human experience in software design. Building trust on the web requires user interface characteristics that cater to discerning and culturally diverse audiences. However, there are still significant problems in this regard, as noted by Lee, Kim, and Moon in their observation of the performance ambiguity of service exchanges in internet shopping stemming from customer interfaces. Consequently, there is a growing emphasis on developing methods, techniques, and strategies that focus on user-centered design to address issues of user preference, individual choice, and cultural differences.

Within the research by Dianne Cyr, one focuses on key components derived from the literature that warrant attention in a cultural context, particularly in relation to general design and localization issues. These components include language, layout, symbols, content and structure, navigation, multimedia, and color, all of which are elaborated upon and accompanied by hypotheses guiding the research. (Cyr et al. 1199, 2004) Language plays a distinct role in culture and is the primary means through which users obtain information from a website. While extensive research exists on communication and culture, the specific functioning of language on the web is less understood due to its relative novelty. Nevertheless, web accessibility necessitates the availability of websites in users' languages, and the quality of translation is a critical issue. Global corporate websites, as examined in a study, demonstrated varying capabilities for translation, with Latin and Asian sites displaying 100% translation capability compared to only 7% for Anglo sites. Additionally, specific characteristics of language presentation, such as headlines, point form, paragraphs, and character presentation, may vary across cultures. Layout and menu design have been central to research on information retrieval systems. The appropriate design layout provides users

with a contextual and structural model for accessing and understanding information, acting as a communication bridge between the user and system.

Different cultures exhibit specific orientations and page placements, and the organization of pictorial information for scanning can be related to the script direction of the user's first language. Cultural preferences for visuals and logical, structured layouts can also influence design choices, such as banner and menu placement. Symbols are significant cultural elements that represent a wide range of features, from currency to time. They act as metaphors denoting user actions, and their usage can vary across cultures. Cultures with a lower tolerance for ambiguity may prefer text over symbols due to the certainty it provides. Content and structure encompass the information, features, and services offered on a website, facilitating communication between the user and the site. Communication styles and preferences differ across cultures, with some cultures valuing explicit and precise messages while others prefer multilevel and implicit messages. These variations in communication style likely influence online interaction preferences, such as the choice of communication channels (e.g., online, email, telephone). Help function availability, index and site map features, and the presence of commercial banner ads are also aspects of content and structure that may differ based on culture. Navigation is crucial for providing users with a clear and facilitated path to information on a website. Efforts in design have focused on improving the ease and speed of navigation, as without clear navigation tools, users can become lost within the web structure. Cultural factors can impact navigation preferences, with certain cultures prefer navigation schemes that prevent users from becoming lost, while others may prioritize navigation aids that change the appearance of the site.

Multimedia elements, such as streaming video, sound, and animation, have been examined in relation to culture. Strong use of graphics and multimedia is more likely when web designers come from cultures that value material goods and are assertive. Preferences for multimedia elements and the extent of their use may differ across cultures. Color preferences can also vary based on culture, with different colors carrying specific connotations in various cultural contexts. Color choices in web design can influence user expectations about navigation, content, links, and overall satisfaction. For example, the preference for brighter colors and more images to create a modern appearance among Europeans and North Americans contrasts with the preference for less bright colors among Asians. (Cyr et al. 1199, 2004)

User Experience

User experience is a fundamental aspect of web navigation development and surveying. It encompasses various dimensions, including cognitive, emotional, social, and physical responses users exhibit when interacting with a website. These conscious and unconscious responses are influenced by the website's usability, which includes factors such as ease of use, navigation, efficiency, and effectiveness. Various researchers have explored the relationship between user experience and usability. The prevailing viewpoint is that usability is the major component of user experience. Challenges associated with understanding user experience are linked to its dynamic nature, fragmented research, and inherent complexity, which collectively hinder the formulation of a definitive user experience definition.

Moreover, user experience can be approached as a phenomenon, a field of study, and a practical discipline. When comparing design and evaluation methods, the primary purpose of evaluation methods is to aid in selecting the optimal design, ensuring development aligns with intended goals, or assessing whether the final product meets the designated UX objectives. Acknowledging that the actual user experience is paramount, careful attention should be paid to user experience before, during, after, and over time. This approach is crucial, as user experience impacts subsequent interactions. The continuity of user experience is emphasized, considering its influence on future experiences. (Allam 34, 2013) In the specific context of e-commerce websites, usability also plays a crucial role in shaping the overall user experience. By ensuring users can effortlessly interact with the website, easily find the information or products they seek, and successfully complete desired actions, usability contributes to a positive user experience. It is an essential component that influences the overall satisfaction and success of websites. (Jongmans 2078, 2022)

The research consistently emphasizes the significance of considering the users' experience as a fundamental factor in evaluating how different navigational choices and designs impact the ease of usability and overall effectiveness of a website. Understanding and optimizing user experience is critical for creating websites that meet users' needs, facilitate their tasks, and create positive attitudes toward the website and the brand. By prioritizing usability and user experience, businesses can enhance customer satisfaction, increase engagement, and drive desired user behaviors.

Localization & Internationalization

Localization and internationalization play significant roles in ensuring the success of websites by catering to different cultures and their navigational habits. Localization involves customizing a product or service to meet the specific requirements of a particular language, culture, or target population.

The goal is to seamlessly integrate the product or service with the local culture, giving the impression that it was originally developed for that specific market. This process aligns the product or service with the preferences, language, and cultural nuances of the target audience, enhancing their overall experience. (Boor 342)

The research emphasizes the importance of considering various website design characteristics to build user trust and create appropriate websites for different countries. These characteristics include language, layout, symbols, content, structure, navigation, multimedia, and color. Language is particularly crucial as it forms the foundation for website functionality, necessitating support for multiple languages to ensure accessibility. The layout serves as a communication bridge, facilitating understanding and access to information. Factors such as placement and design significantly influence user tolerance in different countries.

While localization focuses on specific cultures, it may not fully address the needs of foreign users and their navigational habits. This is where internationalization comes into play. Internationalization involves designing and developing software or web applications in a way that enables easy adaptation to different linguistic and cultural environments. It goes beyond basic translation and requires creating a framework that allows for seamless localization and translation of the software or web application. By implementing internationalization principles during the development stage, organizations can save time and resources when adapting their products to different markets, thereby improving global usability and user experience. It involves considering cross-cultural differences and making necessary adjustments to create fluent interfaces for international markets,

encompassing aspects such as text, local formats, images, symbols, colors, flow, and product functionality.

Proper internationalization involves isolating culturally specific elements during product development, while localization infuses a specific cultural context into the previously internationalized product. The research argues that effective localization should reflect the values, ethics, morals, and language of the target culture. This comprehensive approach ensures that the website resonates fluently with the target culture, leading to better user experiences and overall success in international markets. Understanding the cultural aspects and influences of the countries is essential for achieving successful internationalization and localization of websites. (Boor 342)

Culturally Influenced Design

Differences in abilities, preferences, and behaviors among individuals are influenced by cultural factors stemming from language, religion, education, social and political norms, and values. According to Baughan, Culture encompasses various meanings, beliefs, practices, symbols, standards, and values that are prevalent within society. It is a dynamic and intangible construct that defies simple comparison. Culture goes beyond artificial country boundaries, as a single cultural group can span multiple countries, and within a single country, there may be subcultures due to linguistic or other variations.

Individuals acquire and shape culture throughout their lives and can change based on experiences. Due to culture's fluid and complex nature, researchers often operationalize the term by comparing multiple countries while controlling for other variables that shape cultural values and norms.

In this context, culture is defined as a geographically and demographically coherent group of people who share similar demographics and language within a country or region. This definition acknowledges that there may not be a homogeneous set of beliefs, norms, and values among all individuals within a country but aims to identify tendencies across cultural groups that highlight similarities and differences.

One well-established perceptual difference between cultures is how thinking styles influence visual perception. People from collectivist, group-oriented societies, commonly found in East Asian, Latin American, and African countries, tend to have a holistic thinking style. They interpret objects in conjunction with their contextual content, considering the relationship between elements. On the other hand, individuals from individualistic societies that emphasize independent self-concepts, such as those in the US and Western Europe, develop more analytical thought patterns. They predominantly perceive objects as independent entities separate from their context. Recognizing these cultural differences, from thinking styles to color preferences, websites can adapt and create a localized design that caters to the specific needs and ease of use for different audiences. (Baughan 2, 2021)

According to one of the research studies, cultural markers play a significant role in the design of multilingual web pages. Users unconsciously apply their cultural preferences when evaluating web page designs. Different cultural markers, such as vibrant colors, specific pictures, navigation arrangements, and cultural clues, help users identify whether a web page is intended for their cultural background. The study found that users frequently noticed these cultural markers when browsing web pages designed for an international audience.

Cultural markers also have an impact on the usability and satisfaction of users. Users expressed feeling more comfortable and satisfied when they encountered cultural markers that were relevant to their own culture. These markers facilitated navigation and improved the accessibility of the web pages. However, when cultural markers conflicted with usability, some users prioritized usability over cultural sensitivity. They preferred designs that were more user-friendly and efficient, even if it meant sacrificing some cultural elements.

Preferences for cultural markers varied among users from different cultural backgrounds. German users valued hierarchy and verbal components, while Brazilian and Chinese users preferred visual elements and colors. This suggests that effective localized design should consider and apply different modes of cultural markers based on the target audience's cultural background. Overall, the study found that the current use of cultural markers in multilingual websites is not very effective, and there is room for improvement in creating more culturally sensitive and user-friendly designs. Users acknowledged that although some websites used cultural markers effectively, there is still potential for further enhancement. Merely localizing the language is not enough; a comprehensive approach that considers various cultural markers is necessary to create successful multilingual web pages. (Sun 95, 2001)

Differences in Japan

Some examples presented in the research by Baughan of influenced design is the use of information in Japanese design. Due to the holistic style of thinking, most designs will provide all the information up-front with the contextual content to avoid confusion or frustration in the navigational

process. Even when Japan follows the Zen and minimalist values in their daily lives, many value the sociocultural and linguistic dimensions when it comes to websites. Creating pages full of text, banners, buttons, and smaller images to provide all the information available directly to the user in one look lessens the confusion of the Japanese user. One reason a large amount of text is presented on a single page is because of Japanese Kanji. It is a logographic writing system that effectively conveys significant information through a compact arrangement of lines. To fully comprehend Kanji, it is crucial to write them in their complete form, as the meaning of Kanji is often derived from the context of the entire sentence. In other words, the surrounding text provides additional clarity and understanding of the specific Kanji characters being used. (Baughan 2, 2021)

When it comes to color, in contrast to the common practice of using a minimalistic 3-color rule in many websites, the Japanese color palette for websites tends to be vibrant in bright colors. There are several reasons for this approach. Firstly, it aims to avoid a simplistic appearance and add visual interest to the website design. Secondly, colors in Japanese culture often hold multiple meanings, with red symbolizing joy. Therefore, incorporating a variety of colors allows for conveying different emotions and messages. Thirdly, there is a strong emphasis on the concept of "sell first" in Japanese design, which means that objects and elements on the website need to capture the user's attention immediately. Utilizing flashy and bright colors proves to be effective in achieving this goal. (Baughan 2, 2021)

Another reason presented in the research is the effect of the aging society of Japan. Government data released in Japan reveals that the population of individuals over 75 has surpassed 15% for the first time, reaching 19.37

million. The number of individuals over 65 has also reached a record high of 36.27 million, accounting for 29.1% of the population. Japan currently holds the highest proportion of individuals over 65 globally, surpassing Italy and Finland. Among the elderly population, there were 15.74 million elderly men, comprising 26.0% of the male population, and 20.53 million elderly women, accounting for 32.0% of the female population. The share of elderly individuals has been steadily increasing since 1950, and it is projected to reach 35.3% of the total population by 2040. (Kyodo, "JapanTimes", 2022)

When developing a product specifically for older adults, several factors need to be taken into account. These include age-related declines in dexterity, reaction time, vision, hearing, and cognition. However, it's important to note that not all abilities decline in the same way for all older adults. Therefore, product design should aim to optimize certain capabilities while compensating for others. In terms of internet usage, older adults generally exhibit slower browsing speeds, visit fewer pages on a website, are less likely to leave a website during delays, and spend more time selecting targets for tasks compared to younger adults. Spatial memory has been found to be positively related to task performance in older adults. Better spatial abilities, cognitive functioning, and comprehensive interface design knowledge have resulted in quicker and more accurate task performance among older users. In addition, Japan still uses a compact arrangement and less movement for navigation in web design. (Hart 191, 2008)

Research shows that the high-context culture and the messages and media used within Japanese design, and how it prefers more personal interactions affect the design because it is a high-context culture. Japanese navigation is shown as the same but puts more emphasis on the appearance of the site

and little concern for the movement and navigation of the site. Research finds that users in Japan have a stronger preference for point forms; only 50% of sites wrote top to bottom, 90% of sites support other languages, they use a higher amount of symbols like Asian characters currency, two-thirds of sites provide telephone services, and a 71% of content on a page (compared to 20% in the USA and Germany). (Baughan 2, 2021) Yet, if these design principles were to be used in Western cultures, users would become overwhelmed by all the content.

Applying a Localized Interface

The objective of localizing user interfaces is to establish a platform that is technologically, linguistically, and culturally neutral, enabling the implementation of global initiatives while incorporating local content and functionality. This process involves adapting the website to suit the target users in different locales. Visual design plays a crucial role in helping users organize and structure information, employing icons, symbols, and other navigational tools to create a cohesive structure. However, many websites focus on local markets and communities, which can create difficulties for foreign users who are unfamiliar with the localized website. Striking a balance between accommodating local users and international users can be challenging. (Cyr et al. 1199, 2004)

One common difficulty identified in research is text expansion during translation, which can disrupt layouts and design elements. Therefore, careful consideration is necessary to ensure that translated text fits within the designated spaces without compromising the overall design. Visual content, such as images, should also be relevant to each target audience and may require translation if there is text embedded within the images.

Video localization also involves translating and adapting but with video content through subtitles, voice-overs, or dubbing to cater to different language preferences. Symbols and icons used in the interface need to be culturally appropriate and effectively convey the intended meaning for each audience. Localizing the file structure and code of eLearning materials is essential to optimize the translation, localization, testing, and editing process. Additionally, formatting considerations include adapting dates, currencies, and numerical information to suit the preferences of each audience.

Ensuring consistency in learning experiences and outcomes poses a significant challenge in eLearning localization. However, with the expertise of a localization partner, these issues can be effectively addressed, resulting in a positive and engaging experience for all target audiences, regardless of their cultural or linguistic background. By carefully considering and adapting various elements, such as layout, visual content, symbols, and formatting, user interfaces can be successfully localized to meet the needs of different users in diverse locales. (Cyr et al. 1199, 2004)

Using AI for Navigation

Shifting from a localized design to an internationalized one within a website can significantly improve through manual cultural research and artificial intelligence (AI) integration. The research conducted by Min Chen focused on simplifying web page complexity to enhance user navigation, highlighting the crucial need for websites to evolve in response to changing user information requirements. Website structures can become intricate as time progresses, accumulating unexpected links and pages. This complexity in web pages and navigation structures can create obstacles for users seeking information.

Although the impact of escalating complexity on user experience is acknowledged, it's essential to explore more structured solutions to tackle this issue. Chen's approach presents a valuable strategy, utilizing the widely recognized outdegree metric as a complexity measure. This metric serves as a reliable gauge of page complexity and applies to the overall structure.

Chen introduces an inventive method based on a mathematical programming (MP) model, effectively identifying and eliminating redundant links from highly complex pages, thereby alleviating users' cognitive load. Notably, the model incorporates a mechanism to minimize the disruption to user experience during the link removal process. This groundbreaking work effectively addresses the challenges of evolving website structures and their implications on user interactions and perceptions. (Chen 739, 2020)

Another study about the use of AI in the development of menus shows the technical use of intelligence programs to organize information from different sources. It discusses how the typical approach involves pre-coded knowledge that aids computer systems in menu design, restricting their adaptability to unforeseen client requirements. Typically, computer systems aiding in menu design rely on pre-coded knowledge, which limits their ability to accommodate the unique needs of unanticipated clients. A solution called MIKAS (menu construction using incremental knowledge acquisition system) has been developed to overcome this limitation. This system is grounded in artificial intelligence principles and offers an innovative approach to incrementally constructing a knowledge base for menu design.

MIKAS introduces an incremental knowledge acquisition process, wherein an expert provides hints to the system during actual instances of menu design, contextualizing the guidance. These hints are drawn from menus stored in what is referred to as a Case Base. The essence of the system lies in integrating Case-Based Reasoning (CBR), an AI technique that emulates human problem-solving behavior. Moreover, the system incorporates Ripple Down Rules (RDR), an established method for directly acquiring classification knowledge from experts as they actively engage with the system.

The power of this approach stems from the symbiotic relationship between CBR and RDR. While CBR enables the system to draw upon past experiences and analogies to provide solutions, RDR allows it to glean knowledge directly from experts as they navigate the design process. This combination paves the way for the continuous enhancement of the menu design system. Notably, this evolution occurs while the system is actively in use, rendering it adaptive and capable of refining its performance over time. Overall, MIKAS represents a pioneering effort to tackle the challenges of menu design by connecting AI techniques with expert involvement. Allowing the system to learn and grow over time, offering a unique solution that adapts to changing requirements and evolves with real-world applications. (Khan 43, 2003)

Embracing AI, akin to the mathematical programming model and MIKAS, can significantly streamline the transition and organization of information when designing multiple sites. One practical avenue to accomplish this is by adopting a website navigation generator. This tool employs AI algorithms to suggest navigation systems for websites. The generator proposes user-friendly and intuitive navigation layouts by inputting the website's content and structure so users can fine-tune the navigation system according to their preferences, adjusting variables such as menu placement, size, and color to achieve an optimal design.

Employing this kind of website navigation generator brings forth a dual advantage: time savings and the assurance of crafting a user-centric, intuitive, and efficient navigation system. A thoughtfully designed navigation framework enhances the user experience, streamlines content discovery, and heightens engagement levels. Consequently, users can effortlessly and promptly find the information they're seeking.

Conclusion

In conclusion, this research highlights the significance of website design and navigation across different cultures and the impact it has on users from other countries. Localization and internationalization are crucial in creating user-friendly interfaces that cater to the specific needs and preferences of diverse cultural and linguistic audiences. Factors such as language representation, layout, symbols, content and structure, navigation, multimedia, and color can vary across cultures and influence user preferences and experiences on websites. Website navigation should aim to create a seamless and effortless user experience, integrating structural, associative, and utility navigation elements. However, successful navigation is influenced by various factors, including age, subject matter knowledge, reading abilities, spatial abilities, and processing speed.

Web design characteristics play a vital role in engaging users and enhancing their overall experience. Visual design elements significantly impact users' assessment of a website's credibility. Cultural context should be considered to effectively engage users from different cultures and cater to their preferences. The research emphasizes the importance of user-centered design that considers user preferences, individual choices, and cultural differences.

Differences in thinking styles and cultural influences also affect web design choices. Japanese web design, for example, incorporates holistic thinking, resulting in pages with abundant text and vibrant colors. Localization efforts

need to account for cultural nuances and specific user requirements, taking into consideration factors such as language, symbols, formats, and functionality. Internationalization is crucial for creating adaptable and culturally appropriate interfaces, allowing for seamless localization and translation of software and web applications. Organizations can save time and resources by implementing internationalization principles when adapting their products to different markets, improving global usability and user experience.

The research also highlights the challenges of learning and navigating localized interfaces. Difficulties may arise from text expansion during translation, visual content adaptation, video localization, symbol interpretation, code localization, formatting, and ensuring consistency across different language versions. However, with the right expertise and localization partners, these challenges can be effectively addressed, leading to positive and engaging experiences for users across cultures and languages.

Case Study: How fluent is your interface?: Designing for international users

Initiators and Responsibilities:

This collaborative project was spearheaded by Patricia Russo from Human Interface Engineering and Stephen Boor from Analytical Services, both integral members of the CHI (Computer-Human Interaction) community. In addition to their contributions, the responsibility for addressing cross-cultural design issues extends to the broader involvement of user interface designers and developers.

Motivation:

The primary motivation behind this project is the need to confront the challenges inherent in designing user interfaces for international markets. The escalating trend of internationalization in computer products underscores the critical importance of cultural awareness and adaptation within the software development process.

Project Overview:

This paper emphasizes the importance of user interface designers being aware of cross-cultural differences and making necessary adjustments to the software development process to create fluent interfaces for international markets. It goes beyond the basic translation of text and date formats. It

presents a cross-cultural checklist that covers various aspects such as text, local formats, images, symbols, colors, flow, and product functionality. The paper also suggests an effective international product development cycle incorporating international design feedback and usability testing before the product's initial release.

The introduction highlights the increasing internationalization of computer markets and the need for the CHI (Computer-Human Interaction) community to consider user interfaces in a global context that includes cultural awareness. It mentions the growth of computer products developed for international use and the market potential in Europe, Asia, and other regions. While the CHI community has addressed factors like task analysis, social dynamics, and interdisciplinary perspectives, cultural awareness has not always been fully incorporated into user awareness. The paper acknowledges the limited research on designing for international users, with Nielsen's work being a notable contribution. However, it points out that additional considerations have arisen due to the prevalence of graphical interfaces, leading to cross-cultural translation issues related to images, symbols, and color. The paper aims to highlight these additional considerations and provide guidance on addressing them when designing for different cultures.

The paper distinguishes between internationalization and localization as two steps in preparing a product for another culture. Internationalization involves isolating culturally specific elements from a product during its development, while localization involves infusing a specific cultural context into a previously internationalized product. While current practices focus on translating text, numbers, and dates, creating a product that fluently resonates with another culture requires broader considerations. The paper argues that properly

localized software should reflect the target culture's values, ethics, morals, and language(s).

Challenges Encountered:

- **Neglect of cultural awareness in the initial stages of user interface design.**

- **Limited research on designing for international users is available.**

- **Additional cross-cultural translation issues in graphical interfaces are introduced, particularly related to images, symbols, and color.**

- **Translational complexity encompasses jargon, words without equivalents, and diverse character sets.**

- **Variations in number, date, and time formats across different cultural contexts.**

- **Negotiating cultural disparities in image recognition, acceptability, symbols, colors, flow, and functionality.**

Project Outcome:

While the specific outcomes of the project are not explicitly outlined in the paper, it provides a valuable checklist and a set of recommendations for designing user interfaces tailored to international markets. The emphasis is on adopting a comprehensive approach that extends beyond conventional considerations.

Connection to Identified Problem and Theoretical Solution:

The identified problem revolves around overseeing cultural awareness in user interface design. The theoretical solution proposed in the paper takes the form of a cross-cultural checklist, highlighting essential elements for designers to address. This theoretical solution aims to enhance the entire design process by integrating cultural considerations starting from the project's inception and continuing throughout the development cycle. (Boor, 1993)

Case Study:
Do Cross-Cultural Differences in Visual Attention Pattern Affect Search Efficiency on Websites?

Initiators and Responsibilities:

The study on cross-cultural visual attention patterns in website design was initiated to explore how cultural background influences the perception and recall of information on websites. The primary initiators were researchers interested in the intersection of psychology, neuroscience, and human-computer interaction (HCI). The responsibility for conducting the study fell on a research team, including individuals with expertise in psychology, cognitive science, and website design. The team designed and implemented an online experiment to compare visual attention patterns between Japanese and US American participants.

Motivation:

The motivation behind this research stemmed from previous findings in cross-cultural psychology and neuroscience, which suggested variations in visual attention patterns between East Asians and Westerners. The researchers sought to apply these insights to the domain of website design, aiming to understand whether individuals from different cultural backgrounds exhibit distinct behaviors in searching for and recalling information on websites. The study aimed to contribute to the growing body of knowledge on how culture influences cognitive processes and user behavior in the digital realm.

Project Overview:

The project involved conducting an online study with 65 Japanese participants and 84 US American participants. The participants were asked to perform specific search tasks on website screenshots of varying complexity, and their search efficiency and information recall were measured. The study aimed to investigate whether cultural differences in visual attention patterns observed in previous research would manifest in the context of website interaction. The project overview included the selection of websites, translation of materials, and the design of search scenarios and tasks to assess participants' behavior.

Challenges Encountered:

One of the challenges encountered was the unexpected result that contradicted the initial hypothesis. Instead of finding that Japanese participants were faster at finding contextual website information, the study revealed that they took significantly longer than US participants, especially on highly complex websites. This unexpected outcome prompted the research team to delve into potential explanations, leading to a discussion of the holistic approach that Japanese participants seem to take in understanding websites before engaging in the primary search task.

Project Outcome:

The study's outcomes revealed that Japanese and US American participants approached website interaction differently. While both groups were fast at finding and recalling information in a website's main content area, Japanese participants took significantly longer, especially on complex websites. This suggests a distinct sense-making step in the information-seeking process for Japanese participants. The project's outcomes have implications for website

design localization, emphasizing the need for clear layouts and consistent designs for Japanese users. Additionally, the study contributes to the broader understanding of cross-cultural differences in information-seeking behavior in the digital context.

Amanda Baughan, Nigini Oliveira, Tal August, Naomi Yamashita, and Katharina Reinecke. 2021. Do Cross-Cultural Differences in Visual Attention Patterns Affect Search Efficiency on Websites? In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 362, 1–12. https://doi.org/10.1145/3411764.3445519

Case Study:
Building A Culturally Competent Corporate Website: An Exploratory Study Of Cultural Markers In Multilingual Web Design

Initiators & Responsibilities:

The research is initiated by individuals or entities concerned with the challenges faced by US corporations in the global online marketplace. The imperative for localization arises from the growth of the Internet and the increasing number of non-English-speaking users globally. The primary responsibility lies in designing usable web interfaces for transnational corporate websites, ensuring ease of access and understanding for international audiences. The study concentrates on the localization process, defining criteria, efficient strategies, and evaluating prevailing practices. Additionally, cultural markers in multilingual website design are explored to attain cultural competence in localization.

Motivation:

The motivation behind the research is driven by the substantial and escalating presence of non-English-speaking users on the Internet. Statistical evidence indicates that most internet users reside outside the US, revealing the inadequacy of US corporations in preparing for the global online marketplace. Emphasis is placed on multilingual websites' need to bolster global brands, augment sales, and establish a distinguished international online image.

Project Overview:

The project discusses the importance of website localization for transnational corporations and explores strategies for designing usable web interfaces that cater to international audiences. It emphasizes the significance of cultural markers in multilingual website design and presents findings from a pilot study evaluating the cultural dimensions of website localization. The study involved interviewing target users from different cultural backgrounds and conducting comparative usability tests. The introduction highlights the growing global nature of the internet, with statistics indicating that most internet users reside outside the US. It also reveals that many US corporations must be adequately prepared for the challenges a global online marketplace poses. Multilingual websites are essential for promoting brands, expanding international sales, and establishing a professional image to effectively reach a global audience.

Challenges Encountered:

The intricacy of localization involves addressing requirements from users, business, marketing, and engineering perspectives. Striking a balance between cultural nuances and cross-cultural communication in website design presents a formidable challenge. Potential conflicts emerge as users prioritize usability over cultural sensitivity, necessitating careful consideration in design choices.

Project Outcome:

The research identifies that cultural markers wield a substantial influence on users' satisfaction and navigation in multilingual web pages. Varied preferences among users from different cultural backgrounds underscore the necessity for diverse approaches incorporating cultural markers. While enhancing usability, conflicts may arise when cultural markers clash with usability, highlighting the importance of maintaining a delicate equilibrium.

In summary, the project addresses the challenges inherent in website localization, examining the impact of cultural markers on usability. The outcome suggests that an effective strategy involves the integration of diverse cultural markers based on audience analysis while upholding a careful equilibrium between cultural sensitivity and usability.

Sun, H. (2001) Building a Culturally Competent Corporate Web Site: An Exploratory Study of Cultural Markers in Multilingual Web Design. Proceedings of the 19th Annual International Conference on Computer Documentation, Sante Fe, 21-24 October 2001, 95-102.https://doi.org/10.1145/501516.501536

Visual Analysis:
Yahoo Japan

Depiction:

The Yahoo Japan homepage features a standard logo and bar at the top center. Immediately below, a search bar is accompanied by a sizable blue button. The left side hosts an index bar. In the center, users will find news articles and top stories. On the right side is a section designated for advertisements, a box containing a link to Yahoo email and various shopping sites, a weather information box, and additional spaces for more advertisements and shopping links.

Audience & Consumption:

The primary target audience for Yahoo Japan comprises individuals seeking a comprehensive online experience. Yahoo aims to offer users a unified platform for all their online requirements, encompassing news, entertainment, shopping, and finance. Additionally, Yahoo tailors its outreach to specific audiences by considering demographics and interests. This includes providing targeted advertising to users based on age, location, gender, and more.

Embedded Cultural Context:

Yahoo Japan's homepage features news, articles, and top stories tailored to a Japanese audience, incorporating local news, events, and cultural content. Additionally, there is an emphasis on services related to local finance, shopping, and entertainment. The visual design and layout of the homepages are adjusted to align with cultural preferences and design aesthetics specific to each region. The organization of sections, content placement, and overall

user interface are customized to enhance the user experience based on the habits and expectations of the local audience.

Interrelation Between Image, Form, and Text:

The Yahoo Japan homepage features a busy layout characterized by numerous sectioned boxes and text, creating a visually dense environment that may pose readability challenges, even for those proficient in Japanese. Despite the abundance of multiple links within each section, using clean and sans-serif Japanese fonts contributes to readability, mainly when the viewer focuses on individual sections. The design incorporates small images that occupy minimal space, and the graphics are kept simple, lacking intricate details. The segmented layout facilitates the quick and efficient perusal of information without extensive clicking. A notable feature of the site is its scrolling function, allowing users to access additional news and shopping articles seamlessly.

Compositional Interpretation, Content Analysis, Semiotics, Iconography:

The icons and symbols seen the most on this page are the:

▪ **Mail Icon: An envelope icon typically represents email services, directing users to their Yahoo Mail.**

▪ **Search Icon: A magnifying glass icon may symbolize the search functionality, allowing users to search.**

▪ **News Icon: An icon resembling a newspaper or news symbol could represent the news section.**

▪ **Finance Icon: An icon related to finance or currency might denote the financial section.**

▪ **Shopping Bag Icon: An icon resembling a shopping bag often signifies the shopping or e-commerce section.**

▪ **Weather Icon: A weather-related symbol, such as a sun or cloud, may indicate the weather section.**

▪ **User Account Icon: A silhouette or profile icon may represent the user account settings.**

Aesthetic Choices and Success/Failure:

The Yahoo Japan homepage provides comprehensive information for the typical Japanese consumer, presenting all content simultaneously without breaking it into separate sections to maintain homepage design integrity. The presentation, however, results in an overload of text and information, creating challenges for users to focus and make quick decisions on navigation. Despite this, organizing information into distinct sections, akin to a bookshelf where each box represents a different category, is a notable aspect of the homepage's design.

Visual Analysis:
Rakuten.co.jp

"Yahoo.jp Homepage". Screenshot. Yahoo.co.jp. Yahoo Japan. 2023. https://www.yahoo.co.jp/

When you first visit the Rakuten website, you'll notice its design resembles the Yahoo Japan homepage. At the top, there's a main bar featuring the Rakuten logo, a search bar, a store link, an information page, history, favorites, an account, and a profile link. Just below, you find advertisements with tabs and account info. The main section highlights Rakuten shop deals through a left-to-right carousel, while the bottom section displays six squares advertising store deals. As you scroll, a typical Japanese design unfolds on the left bar, presenting tabs, pictures, and text for products, sales, and brands—all within a single page.

Layout and Navigation:

Each section on Rakuten's site resembles stacked boxes, organizing bars for search, account links, and advertisements. Navigation is user-friendly, allowing easy scrolling to find information within clean shapes. The search bar is conveniently placed and reads from left to right, contrary to Japan's usual right-to-left design, ensuring accessibility for users.

Evolution Over Time:

Over the years, Rakuten's website has adapted to trends while maintaining its characteristic all-information-at-once style. In 2012, a universal site with English as the primary language was introduced to enhance global competitiveness. Despite this global focus, the design of the English and Japanese sites remains notably different.

Web Traffic and Market Dominance:

Rakuten Japan attracts a significant monthly web traffic of 507.7M, solidifying its dominance in the Japanese eCommerce market. With a commanding presence, Rakuten has secured over 25% of the online Business-to-Consumer (B2C) market, showcasing its widespread popularity among consumers. This significant market share attests to the platform's success in attracting and retaining a large user base, reflecting its effectiveness in meeting the diverse needs and preferences of Japanese consumers. Rakuten's influence also extends beyond the general eCommerce space, as it commands a remarkable 30% share in specific segments such as apparel, food, and household products. This level of market share underscores Rakuten's success in catering to a wide array of consumer interests, from fashion to daily essentials.

Localization of Japan:

The website's design reflects the localization of Japan through multiple pictures and advertisements, presenting essential information upfront. The main links are strategically placed on the top right, aligning with the typical Japanese reading pattern. Rakuten's approach, influenced by the holistic thinking style in Japanese culture, prioritizes clarity through upfront information and contextual content, leveraging the logographic Kanji system.

Cultural Factors in Design:

Using Kanji contributes to presenting a large amount of text on a single page, ensuring clarity and understanding in a high-context culture. Rakuten's design offers a unique insight into Japanese website localization, showcasing how the holistic thinking style influences user experience. This approach differs significantly from Western designs, emphasizing the importance of considering cultural factors in website development.

Conclusion

In conclusion, the Rakuten Japan website serves as a fascinating case study in website design, reflecting its evolution and market dominance and carefully considering cultural factors in localization. As an example of a localized Japanese website, Rakuten.co.jp provides valuable insights for comparing design principles between American and Japanese contexts.

"Rakuten.jp Homepage". Screenshot. Rakuten.co.jp.
Rakuten Japan. 2023. https://www.rakuten.co.jp/

Visual Analysis: Yahoo.com

Layout:

The chosen layout for the US Yahoo page follows a structured format. At the top, a prominent search bar is centrally located, with the Yahoo logo on the left and user-related icons (sign-in, notifications, and mail) on the right. Below the search bar, the left side of the page features links to various sections like mail, news, finance, sports, entertainment, life, Yahoo Plus, and more. The right column is dedicated to trending topics, weather, a scoreboard, and a daily horoscope. The main section in the middle showcases the number one story, taking up a significant portion of the page, followed by the next five stories. Additional sections include recommended stories and holiday gifts.

Placement and Navigation:

Each section is strategically placed for optimal visibility and user engagement. The top bar with the search function and user icons provides easy access to essential features. The left-side links offer a clear navigation path to different content categories. The central placement of the main story and the cascading list of stories below encourage users to scroll through and explore more content. The right column with trending topics and additional features complements the main content, enhancing the overall user experience. The layout is user-friendly, allowing for seamless navigation through the recommended stories of the day.

Evolution Over Time:

Over the last decade, Yahoo has undergone significant stylistic transformations while staying current with design trends. The evolution has been notable,

progressing from a simple text-based design to a more visually oriented layout emphasizing images to highlight stories and products. This shift reflects a broader industry trend towards more visually appealing and engaging web designs.

Web Traffic:

Yahoo.com received a substantial 4.3 billion visits in October, indicating its significant web presence. The average session duration is reported at 20 minutes and 30 seconds. Compared to September, there has been a notable increase in traffic by 0.85%. These metrics highlight the platform's continued popularity and the effectiveness of its content in retaining user engagement.

Localization in America:

The website's layout reflects elements of localization specific to an American audience. Placing essential items from left to right aligns with the Western reading pattern. Images and icons are consistent with contemporary design trends that resonate with American users. Including sections like weather, sports, and trending topics caters to the diverse interests of the American audience, making the website culturally relevant and engaging for its users.

"Yahoo Homepage". Screenshot. Yahoo.com. Yahoo.
2023. https://www.yahoo.com/

Visual Solution

The purpose of the visual solution is to provide a comprehensive showcase of the differences between localized and internationalized website design in Japan. It aims to raise awareness among foreign individuals residing in Japan and companies catering to or collaborating with them. The ultimate goal is to create an opportunity to develop new designs and navigational properties that assist all users, whether they are international or local. The visual solution will incorporate successful research-based design principles to achieve this outcome. It will serve as a resource that businesses and individuals can access to understand better how to navigate Japanese websites easily. The deliverables will primarily be in digital format, allowing for widespread distribution and accessibility.

03

Initial Exploration

Like all projects, the first task was researching and sketching as many layouts as possible to demonstrate the visualized outcome. I first started with the Internationalized version since it is a layout I am more familiar with. I drew inspiration from websites I visit daily, Pinterest inspiration layouts, and websites created by other designers on Behance and Instagram. I focused on drawing single-page scrollable sites that would be easy to navigate without jumping from place to place. While drawing, I knew that I wanted to have a site that would be used by locals and foreigners living abroad, so I chose to focus on a small town's government website. It would cater to both those living in the town long term, short term, and for those who are just visiting. After sketching out the international version of the website, I shifted my focus to the Local version. It would be for the same topic, a small town's government website, but would be designed for those who have lived in the country their entire lives. This would mean that the design needs to cater to those used to localized websites. I first started by researching different websites in Japan that have the highest traffic, like Rakuten.jp. Using this website as a reference and multiple others, I drew many layout sketches demonstrating immediate information, visible navigation, and a right-to-left design. While drawing, I wanted to keep the Localized version a similar single-page scrollable site but would add more information up front and access to more navigational tabs.

Once I finished sketching for both websites, I created a digital sketch of a website that would encompass both the Internationalized version and the Localized version into one single site that provides the option to change the style depending on the viewer's preference. Whether they wanted a familiar localized format or were new to town and wanted the internationalized version that would allow for an easier read, all they would have to do was click a switch. While creating the digital sketch, I focused on the layout and the amount of information needed to create a governmental website successfully. Knowing the layout I wanted for each website allowed me to experiment with the different aspects often used in each style, localized or international. Japanese sites mainly used by locals are often more stationary sites that are click-based navigation and will present the important information upfront on the first initial look. International sites have moved on from the older click-based navigation and have more of a scrolling movement with visuals that allow the user to flow through the website. It also has less information upfront and expects the user to click on what they need to find all the information in one spot. With these aspects in mind, I created a more solid layout for the international and local pages of the two-in-one website.

Exploration

Throughout the process of creating the initial base for both sites I had to make sure I used the correct pieces of each design as well as included information that is relevant for the chosen town. I also referenced multiple sites from my mood board, the sketches I made in the beginning, and other travel sites geared towards travelers going to Japan.

"Tamano City Homepage". Screenshot. city.tamano.jp. Tamano City. 2023. https://www.city.tamano.lg.jp/

Image Board

As I continued to create the base layout for the website, I checked my inage board, which was filled with both international and localized website designs. It contained sites that had simple scrollable designs, intricate text-based designs, and more stationary click-based designs. Considering all of these different design points, I included key pieces from each that I commonly saw. The Internationalized layouts had larger photos, more empty space, less text up front, and a larger focus on scrollable navigation. For the Localized layouts, they had smaller photos to make space for the information, more text to present the navigation and information, the major information on the initial page when entering the site, and a larger focus on click navigation. Of course, there were many similarities with the placement of the navigation bar, the location of the main logo for the purpose of the website, and often the initial photo that present the viewer with the website's overall theme.
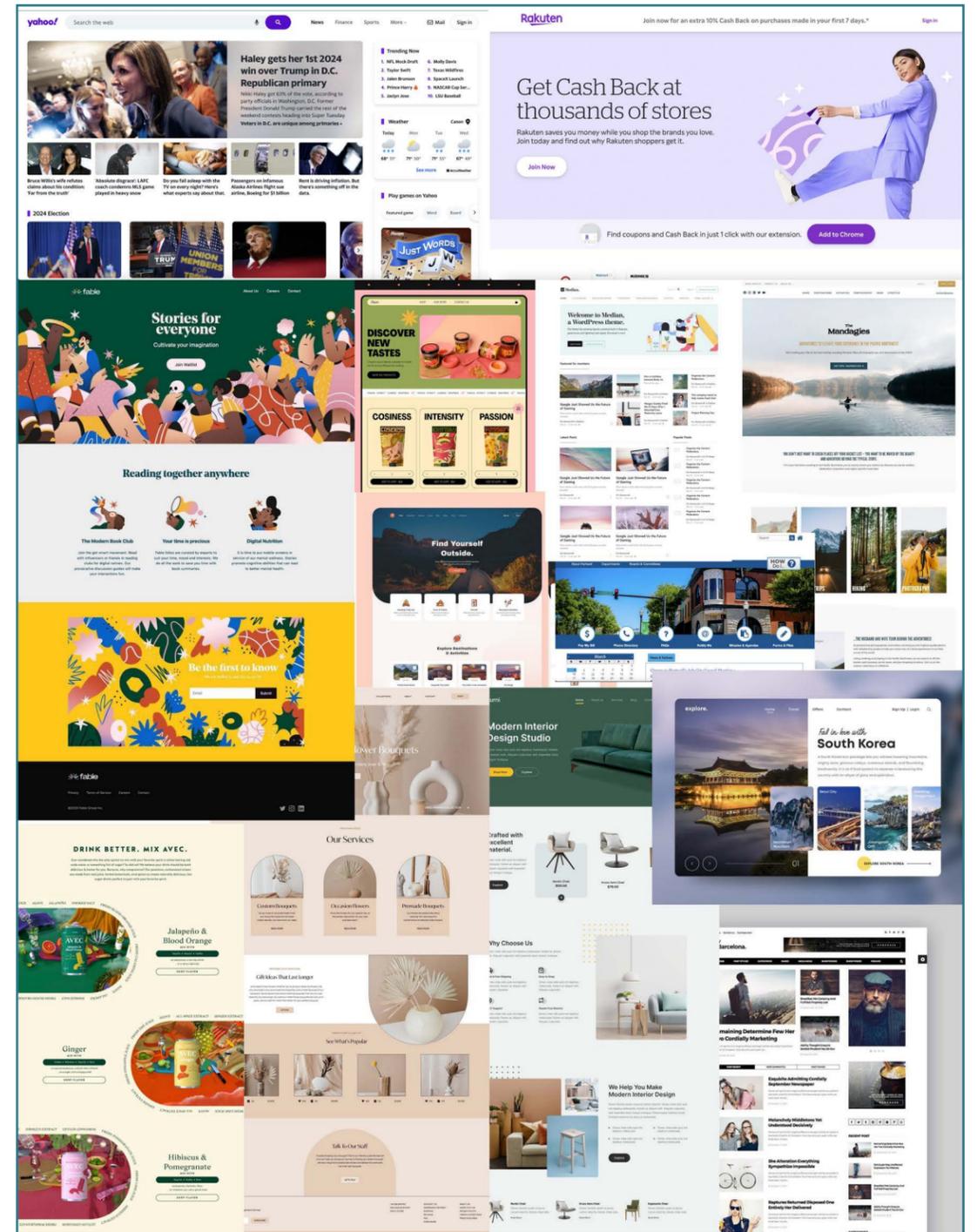
Sketches

Sketches were an immense help in the process of assisting in the final design. It allowed in-depth exploration of the layout options and the creation of a collection of the kinds of layout sites have for localized sites in Japan and international sites.
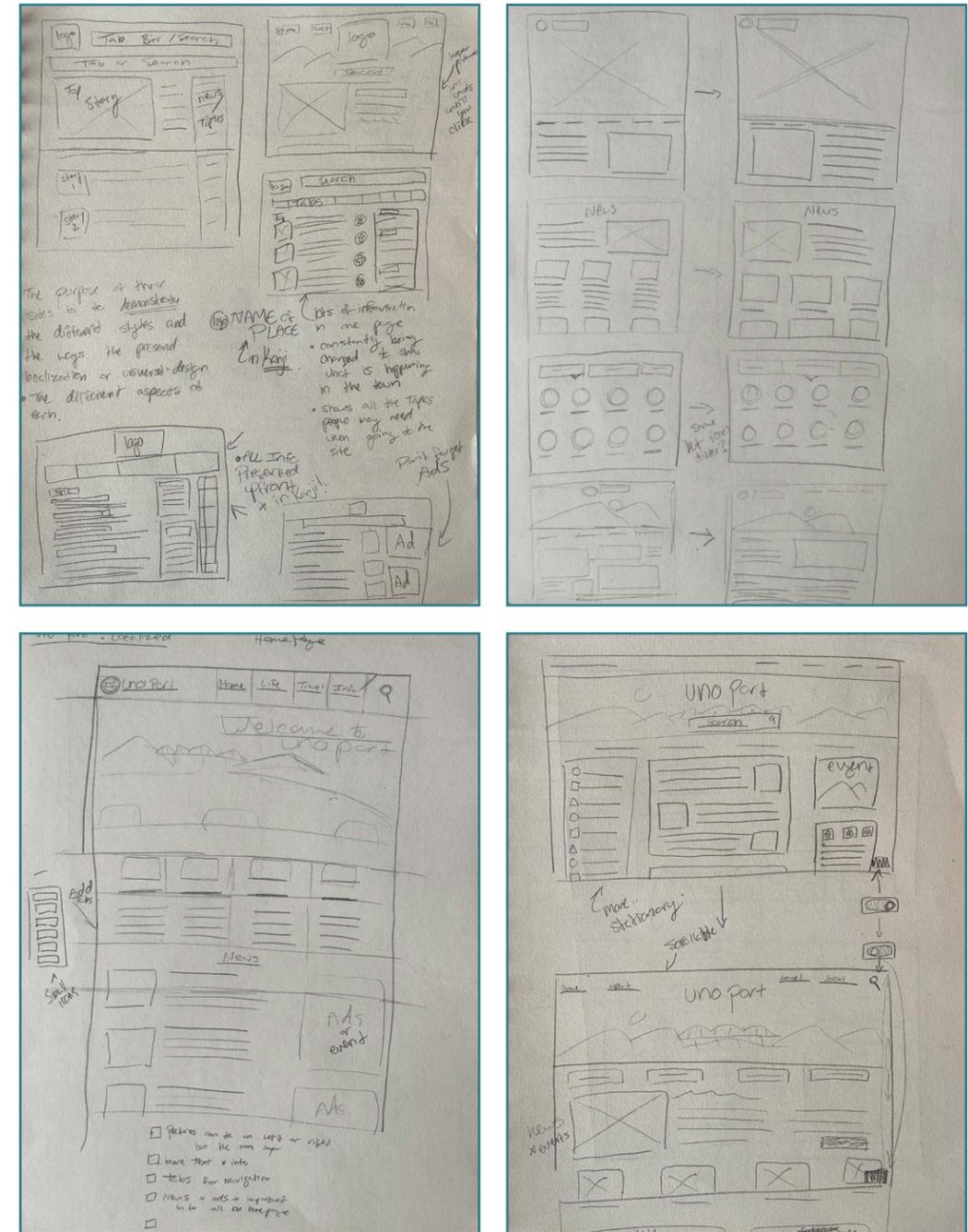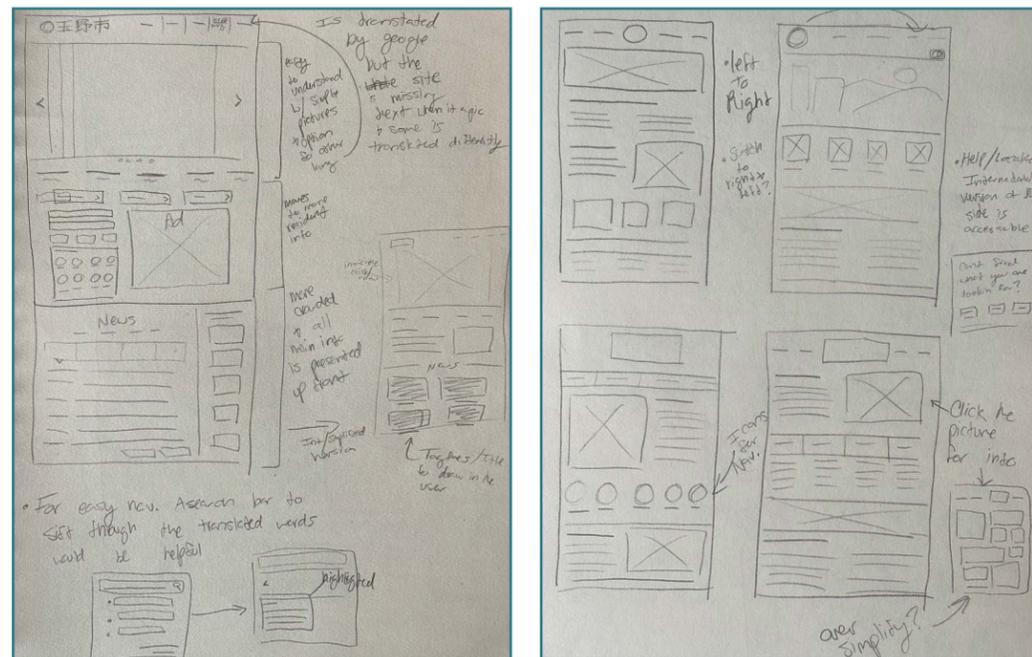
Topics and Articles

To ensure I knew what kind of topics would be for the site, I researched the website of the town I used to live in while residing in Japan. I found that it was focused on local issues that have been resolved, upcoming events in the town, job openings, volunteer work, real estate, and topics relating to each stage of life.

Color Palette & Typography

For each website, I decided to base the color palette on one of the town's main attractions, the port of Uno. It is a port surrounded by deep blue waters, green islands scattered throughout the horizon, and glistening sunlight. Leading to the use of blues, greens, and yellows.

Welcome to
Tamano City

Tamano City

COLOR PALETTE

#297685 #92C6BA #FFDC6A #E8F4FF #383838

FONT

Header Font
Degular Bold
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890

Body Font
Degular Light
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890

MOODBOARD INSPIRATION

Photography

For each website, I decided to base the color palette on one of the town's main attractions, the port of Uno. It is a port surrounded by deep blue waters, green islands scattered throughout the horizon, and glistening sunlight. Leading to the use of blues, greens, and yellows.

Construction

Once I had all the base materials ready, I began assembling the website using Adobe Xd. I decided to use Adobe Xd because of the freedom and control I could have over the design. I used the mood boards and sketches to create the layout, the color palette, and typography to create the site's identity, and I added the information and photos to give the website substance. This created a base website from which to grow.

Single Page Scrollable

While working on the base website, I chose a single scrollable site to easily present the issues being addressed. It will allow for easy navigation for both parties, space for design and content, and be more accessible for presentations.

Animations

Within the single scrollable site, I also added some animated slides for the home page's main picture and the events. This added to the interactiveness of the site and added depth to the navigation process.
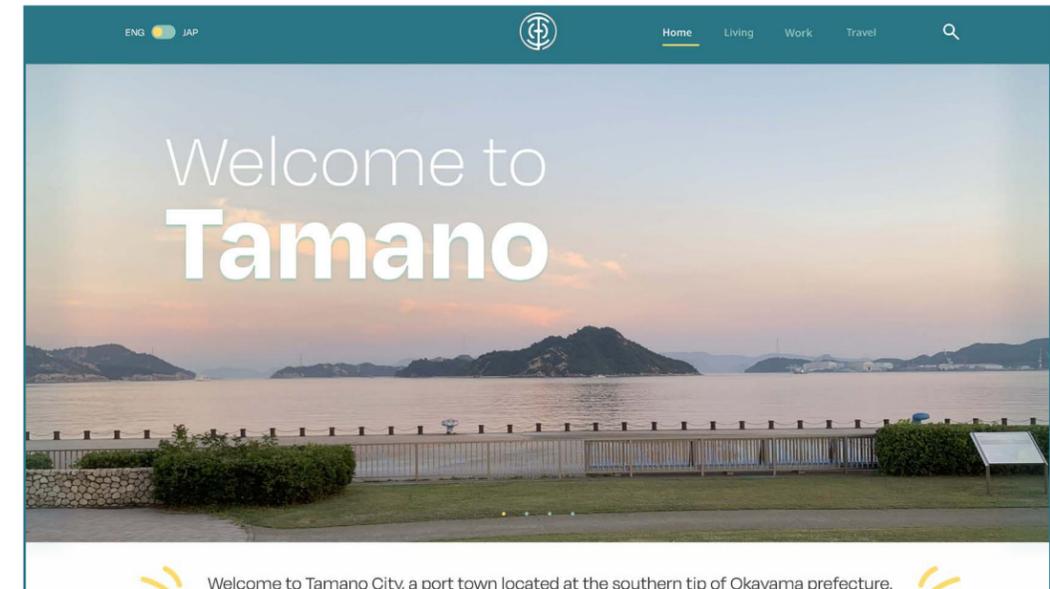
Visual Deliverables

The final deliverable is a website that caters to individuals residing in a small town in Japan who are both local and international. It is a website designed with both a localized layout and an international layout, giving the user the option to switch to their preferred layout and language. This allows all users, local or international, easy navigation to find the information they seek.

04
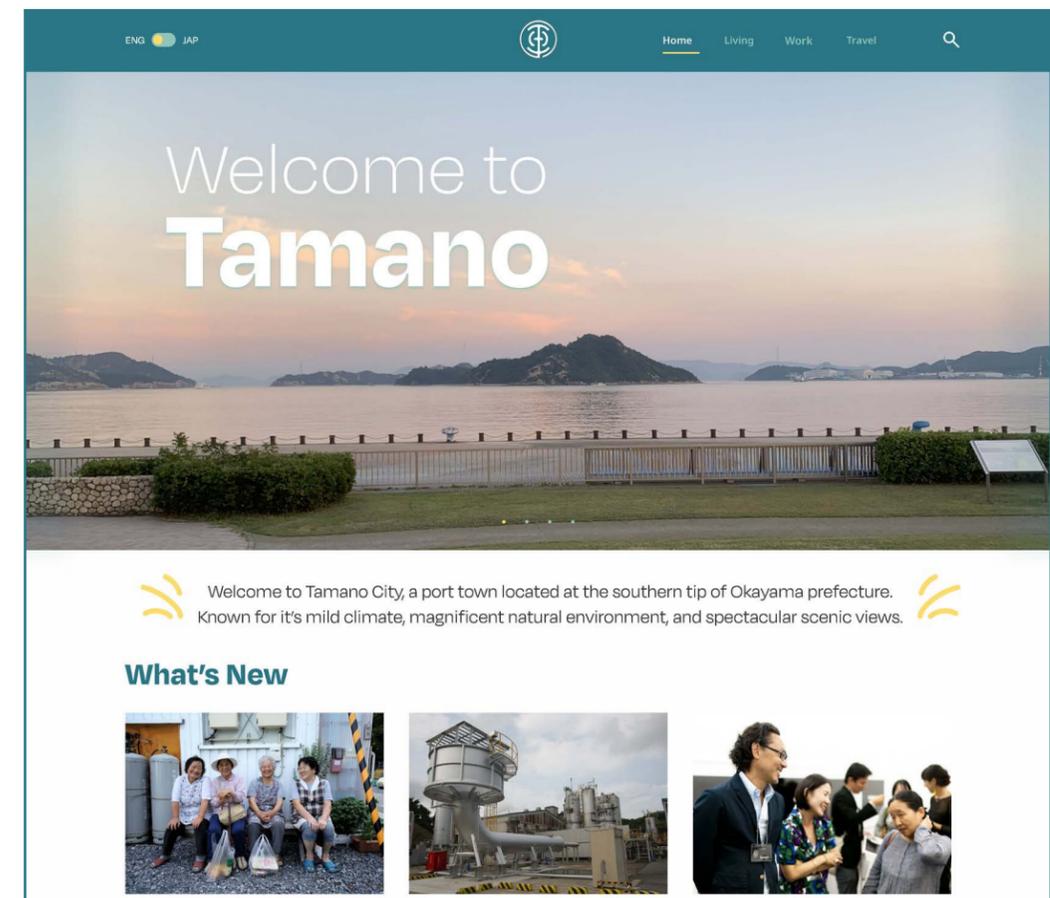
Localized Design

For the localized design, the initial home page has large photos of the town, a navigation bar, and animation to scroll through other photos of the town. As you scroll down, you are presented with the What New articles and their corresponding titles and pictures then right below is a collection of the most recent articles' titles and a navigation list that can bring the user to further articles on that topic. This section immediately presents the most popular information to the user and provides easy-to-see, clickable navigation. In the next section, events for the town are announced. Each event has a corresponding picture, title, and the most important information for the user. Next are the articles about recruitment and volunteer opportunities in the community. This has a similar layout to the events section and also presents the important information upfront for the users. Lastly, the information for the town's governmental office, social media, and location is included.

子育て

教育

就職・退職

引越し・住まい

結婚・離婚

高齢者・介護

おくやみ

令和6年2月号

園庭開放のご案内

気軽に遊びにきてください！
「ちゃいるどはうす"ももちゃん"」

玉野市霊園の使用者を
募集しています

ダンスパーティーのお知らせです
（文化協会ジャズバンド部）

シーバスの時刻表を刷新しました

市有地売却情報

イベント

交響曲第九番「合唱付」チケット販売中です

2024年市民コンサート 交響曲第9番「合唱付き」。2016年4月21日（日）レクリエーションセンターアリーナにて12時30分開場

令和5年度（第54回）防火作文受賞作品展

防火作文の入賞作品が決定しました。入賞作品は春の火災予防運動期間中に展示しますので、ぜひご覧ください。

【3月21日開催】岡山ナイター移住相談会が開催されます！

ポロネーズ「英雄」、幻想曲「さくらさくら」、クラリネットソナタ第2番第2楽章、第4楽章、ソーラン節など。

募集

スクールサポートスタッフ、教務助手を募集しています

【応募期間】
午後5時15分までに到着する必要があります。2020年2月15日（木）～2020年2月22日（木）

空き家情報

市は、空き家に住みたい人向けに市ホームページや都市計画課窓口に空き家紹介コーナーを設置している。

期日前投票証人を募集しています

選挙の期日前投票の証人登録をしていただける方を募集しています。期日前投票の証人は、選挙の際に登録した人の中から選ばれま

交響曲第九番「合唱付」チケット販売中です

2024年市民コンサート 交響曲第9番「合唱付き」。2016年4月21日（日）レクリエーションセンターアリーナにて12時30分開場

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募集

スクールサポートスタッフ、教務助手を募集しています

【応募期間】
午後5時15分までに到着する必要があります。2020年2月15日（木）～2020年2月22日（木）
【募集職種】
スクールサポートスタッフ（児童支援）約4名 指導
アシスタント 2名程度
教育支援員（1年生グッドスタート）3名程度
就学支援員2名程度。

空き家情報

市は、空き家に住みたい人向けに市ホームページや都市計画課窓口に空き家紹介コーナーを設置している。
現在使用していない住宅をお持ちの方は、ぜひ情報をご登録ください。

期日前投票証人を募集しています

選挙の期日前投票の証人登録をしていただける方を募集しています。期日前投票の証人は、選挙の際に登録した人の中から選ばれます。期日前投票所で投票に立ち会い、選挙が公正に行われているかをチェックするのが仕事だ。
専門的な知識は必要ありません。

Internationalized Design

For the internationalized design, I kept the initial home page with the large photos of the town, the navigation bar, and animation to scroll through other photos. This time, however, when you scroll down, the new articles are presented with a simpler design. They have less information upfront and attract users using the photos and titles. This is continued with the events and recruitment sections. A design that allows the user to find what they need but is still simple and easy on the eyes allows for a more familiar navigation making it interactive without overpowering the design.
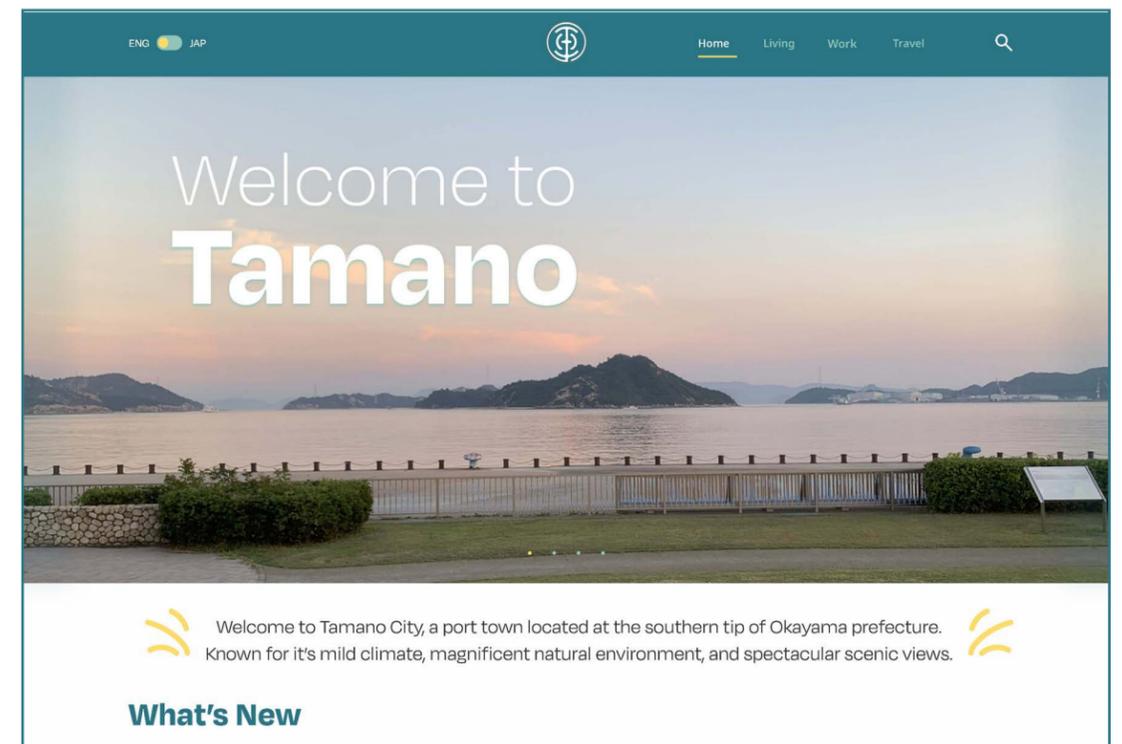
Welcome to Tamano City, a port town located at the southern tip of Okayama prefecture. Known for it's mild climate, magnificent natural environment, and spectacular scenic views.

What's New

Priority Support Benefits Due To Rising Prices

Feb. 16, 2024

[Uno 2-Chome] Water Outage Has Been Resolved

Feb. 16, 2024

Upcoming Education Committee

Feb. 16, 2024

Events

Fire Prevention Essay Exhibition

Recruitments

Looking For School Support Staff And Teacher Work Assistants

Vacant House Information

We Are Recruiting Early Voting Witnesses

Events

Fire Prevention Essay Exhibition

Recruitments

Looking For School Support Staff And Teacher Work Assistants

Vacant House Information

We Are Recruiting Early Voting Witnesses

More

Tamano City Hallcorporate Number 5000020332046

1-27-1 Uno, Tamano City, Okayama Prefecture 706-8510

Tel:0863-32-5588 (Representative)
Fax:0863-21-3464 (Representative)

Office Hours: 8:30 To 17:15
(Excluding Saturdays, Sundays, Holidays, And Year-End And New Year Holidays)
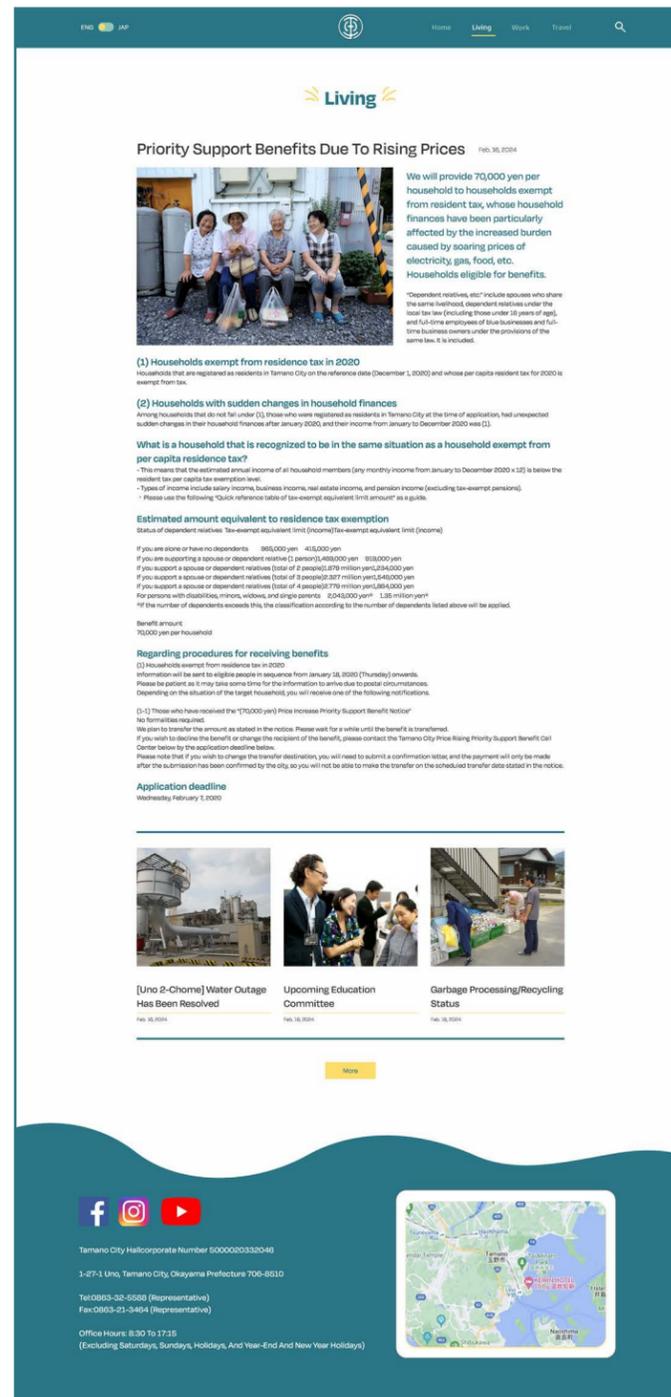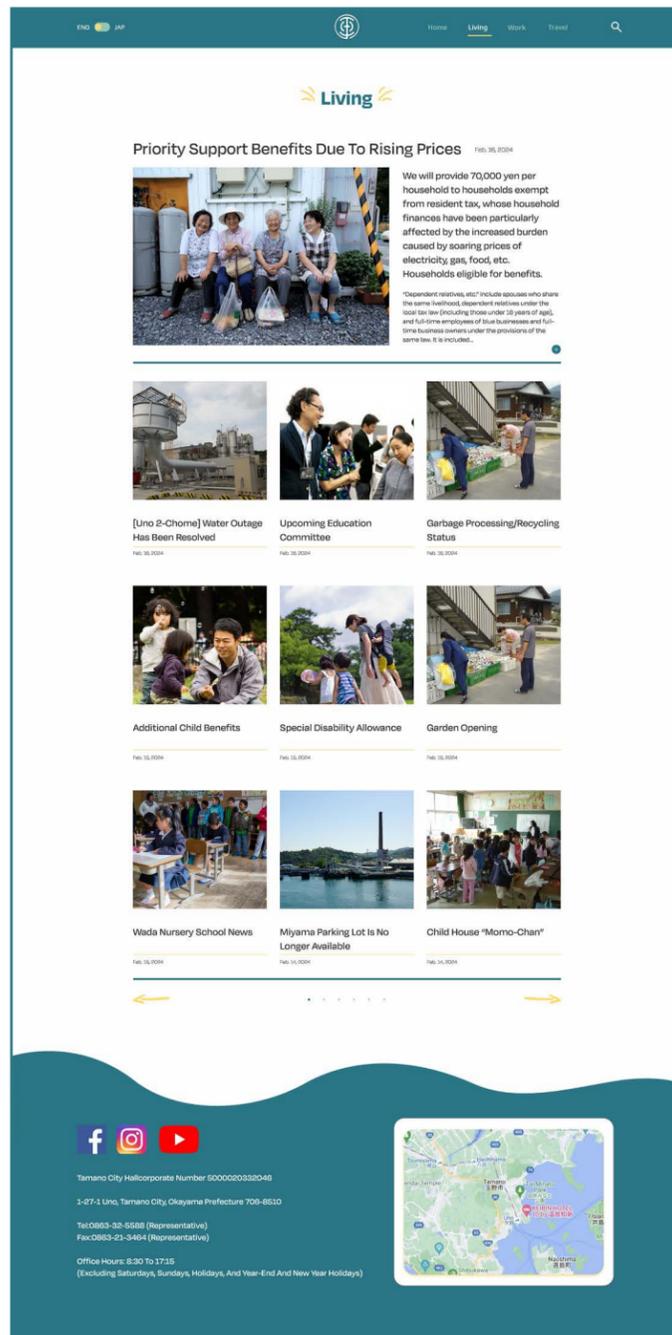
Google Translate Example

The Google Translate design was created to show the impact of a site dependent on Google's AI translation. It is often translated wrong, out of place, or spread over other text and images. This site is to act as an example of why the two-in-one site is essential to express the correct information to all users.

What's New

Tamano City Price Rising Priority Support Benefit (70,000 Yen)

Feb. 16, 2024

[Uno 2-Chome Grounds] The Water Outage Has Been Resolved

Feb. 16, 2024

An Education Committee Will Be Held

Feb. 16, 2024

what's new

Pregnancy/childbirth

child rearing

Educate

Employment/retirement

Moving/Residence

marriage/divorce

Elderly people/nursing care

Good night

Additional Child Benefits
Feb. 15, 2024

Special Disability Allowance
Feb. 15, 2024

Wada Nursery School News
Feb. 15, 2024

Miyama Parking Lot Is No Longer Available
Feb. 14, 2024

Garden Opening
Feb. 15, 2024

Child House "Momo-Chan"
Feb. 14, 2024

We Are Recruiting Users For Tamano City Cemetery
Feb. 14, 2024

Announcement Of Dance Party (Cultural Association Jazz Band Club)
Feb. 15, 2024

We Have Updated The Seabus Timetable
Feb. 14, 2024

Municipal Land Sale Information
Feb. 14, 2024

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Events

Tickets for Symphony No. 9 "with chorus" are now on sale
2024 Citizen Concert Symphony No. 9 "With Chorus." Opens at 12:30 on April 21, 2016 (Sunday) at the Recreation Center Arena

Reiwa 5th Annual (54th) Fire Prevention Essay Award-Winning Exhibition
The winning essays on fire prevention essays have been decided. The winning works will be on display during the spring fire prevention campaign, so please take a look.

Citizen concert in TAMANO tickets are now on sale
Polonaise "Hero", Fantasy "Sakura Sakura", Clarinet Sonata No. 2, 2nd and 4th movements, Soran Bushi, etc.

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Recruitments

School Support Staff, Education Support Staff, And Teacher Work Assistants Needed
[Application period]
Must arrive by 5:15 p.m. Thursday, February 15, 2020 - Thursday, February 22, 2020
[Recruitment type]
School support staff (child support) approximately 4 people Teaching assistants approximately 2 people Educational support staff (1st grade Good Start) approximately 3 people School attendance support staff of approximately 2 people

Recruiting And Introducing Information On "Vacant Houses"
The city has set up an introduction corner for vacant houses on the city's website and at the City Planning Division counter for people who want to live in vacant houses.
   If you have a house that you are not currently using, please register your information.

We Are Looking For People To Register As Witnesses For Early Voting In Elections
We are looking for people to register as witnesses for early voting in elections. Early voting witnesses will be selected from those who have registered when the election is held. The job is to witness voting at early voting stations and check whether elections are being conducted fairly. No specialized knowledge is required.

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05

Conclusion

In conclusion, Mazed resolves the confusion for international people living abroad in Japan while preventing a compromise for the locals. Mazed focuses on the inclusion of both parties and allows them a place that is easy to navigate for those familiar with the right-to-left layouts, immediate information, immediate navigation tools, or the opposite. It provides a comprehensive showcase of the differences between localized and internationalized website design in Japan and raises awareness among foreign individuals residing in Japan and towns that cater to or collaborate with these individuals. It creates an opportunity for the development of new designs and navigational properties that assist all users, whether they are international or local. It will also serve as a resource that businesses and individuals can learn from to expand their news or products to both local and international users.

In the future, I would like to develop this town's website further to cater to other languages and cultures. This would allow for a larger demographic and an influx of new residents and tourists to the town. With Mazed as the base, I would also want to research other cultures' preferences and discuss the possibility of an AI system with some technical experts that can create a layout befitting the language and origin of a new user. Implementing this AI system for personalized experiences could be controlled and financed by a combination of local government and businesses that benefit from increased tourism or international business. Since, similar to the different preferences between Japanese and American users, there are many differences between other cultures and their layouts, languages, symbols, and color preferences.

Currently, so many websites only fit the internationalized mold and not the localized one, creating a learning curve and slowing down the user's navigation. It is also true with the opposite, having only a localized website for a local town or country-wide business, making it difficult for international users to navigate. Yet, through this project, I have learned that there is a way to bridge the gap and cater to both parties. A two-in-one site with the option for a localized site or an internationalized site. Making me wish there was something similar when I was living in Japan for two years and it would take double the amount of time to navigate my city's website to know where I could drop my trash off.

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