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## IMPROVING USER EXPERIENCE (UX) THROUGH WEB REDESIGN

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IMPROVING USER EXPERIENCE (UX)  
THROUGH WEB REDESIGN

by

JASH SHAH

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The University of Texas at Arlington in Partial Fulfillment  
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## ABSTRACT

### IMPROVING USER EXPERIENCE (UX) THROUGH WEB REDESIGN

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This project aims to identify major factors of consideration for redesigning a website to improve the user experience (UX). We short-listed ten websites and reviewed them with the prospect of understanding the user experience. A short survey was also conducted to better understand usability, user satisfaction and for examining the user experience. This information was compared with the top three UX popular websites to help ascertain the major differences. The process allowed us to classify factors that would assist in enhancing the user experience, but it was discovered that these could vary depending on website type and use. Additionally, there were few instances identified that could help the website owner determine when a redesign is needed. Future studies should include a larger sample size and a website impression report for each website, as that would assist in determining the major factors that matter both in user experience and website redesign.

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## CHAPTER 1

### INTRODUCTION

Over 2 billion people world-wide used the internet in 2010. There were over 4.6 billion internet users in 2021. Websites are being produced at a rapid rate to attract and retain this huge mass of online visitors. There were slightly more than 210 million webpages in 2010. To shine in this competitive online environment, companies must be familiar with the newest web design technology and trends, as well as customer behavior and expectations.

A website redesign is a major reworking of a present website that entails drastically updating features such as the structure, content, code, and graphics to better serve website visitors. A successful website redesign increases revenue, decreases bounce rates (the percentage of visitors to a particular website who navigate away from the site after viewing only one page), and improves user experience (UX). According to the associate director at Truvani, there are two things that are just not comparable to one another, there is no distinction between UX and User Interface (UI) design. The user experience is made up of multiple elements, user interface design being only one of them, that when combined form the user experience (Jakharia, 2019). The way a person engages with a website, or a comparable product is referred to as user experience (UX). UX encompasses a series of rules or hypotheses about the how users will interact with a piece of software or a specific element on a website, which might range from payment gateway to navigation tools to forms. User experience (UX) refers to the science of forecasting and satisfying the needs

of website visitors. The objective is to give a nice visiting experience and make navigating as simple as possible. Information system, behavioral science, sociocultural psychology, and usability are all part of UX. It is used for both website design and website development process.

A decent website design may help to set up as a professional and create brand image, both of which are important in today's competitive business environment. As a result, business owners require websites that demonstrate competence and honesty. A consistent and unified web design will provide visitors an excellent reason to trust the organization by providing a clear visual depiction of what the organization is all about. When a visitor perceives website design to be trustworthy and professional, they are more likely to have a great experience. In the long term, if customers have a favorable opinion of brand and business, the organization will have a great reputation. Increased sales and income are potentially easy to come by when there is a positive consumer image.



## CHAPTER 2

### LITERATURE REVIEW

As technology improves, new patterns emerge, while old ones go away. Websites must evolve to meet user expectations, however not all changes are beneficial (Garett 2016). At some point, a redesign is required, but it is easy to mess up the UX in the process. For example, Yahoo Mail implemented a minimalist overhaul in an apparent attempt to imitate Gmail's design. The elimination of tabs, which helped users organize and categorize mail, was one of the moves that upset users the most. For many, Yahoo Mail's tabs were an appealing selling feature that drew them to Yahoo services over Google's in the first place. According to the New York Times, their user complaint forum blew up, delivering Yahoo with thousands of dissatisfied consumers. Through the example it can be interpreted that more complicated the system is, the more extensive the planning and architecture must be. While a full-fledged multi-member UX research for a basic static website may seem overkill, multi-faceted websites, interactive Web apps, and e-commerce websites all stand to profit greatly from UX design (Belanche 2012).

Currently, marketers embarked on a redesign without a plan in place to test the new page layouts and website content. There is no framework in place to track and justify the adjustments in relation to important conversion metrics. Usually, marketers avoid understanding the target audience, prioritizing test hypotheses to solve difficulties impeding conversions, setting up controlled split testing, and evaluating data to back the changes. It is also critical that a website is mobile-friendly and simple to browse, regardless

of the device users are using to view the site. Google has recently begun penalizing websites that are not mobile-friendly, emphasizing the importance of responsiveness. This is perhaps the biggest and most important approach to improve the usability of the website. A website makeover should do more than just modify the look of site. It should improve the methods in which it operates, particularly in terms of sales and conversions. Repositioning, on the other hand, involves altering the client's perceptions of a brand (Sedrati, 2016).

The fact that the definitions of website design components frequently overlap is still a problem. Many studies, for example, looked at how well a website used cognitive architecture logical and hierarchical structure, systematic content arrangement and classification, intelligible headers and labels, and keywords (Tarafdar 2015). These properties, on the other hand, are critical in navigation design. Furthermore, the consequences of utilizing different logos and symbols extend beyond pictorial representation. Logos and symbols can also function as navigational aids and generate a unique brand/identity for the company purpose. Future research is needed to establish separate and objective methods to evaluate these features and their impact on user engagement. In the last decade, Internet usage has expanded dramatically and quickly (Tan 2006). In most, if not all, companies and organizations, websites have become the most massive public channel of communication. In 2014, 87 percent of adults in the United States aged 18 and up used the World wide web. Since most business-to-consumer transactions take place online, the design of a website is crucial to keeping visitors engaged. Users may become frustrated by badly designed websites, leading to a high "bounce rate,"

and the number of individuals who visit the home page without browsing the rest of the site (Google.com 2015).

A quick explanation of where the organization belongs in the market area is known as market or brand positioning. Starbucks, for instance, markets itself as a source of high-quality coffee and drinks, whereas Tesla and Mercedes have positioned themselves as luxury status symbols in the market. Recently, IKEA, a firm that sells home furnishings and accessories, has chosen to make its in-store buying experience available online. The revamp emphasizes entire interior setups in a less congested manner than their prior website, comparable to the existing brick and mortar locations. A chatbot functioning as a sales assistant was also deployed to offer the website a more personal and customized touch. It could help consumers through the purchase process. During this redesign, IKEA also achieved success because they connected with their audience with the use of chatbot, attractive themes, template, and 3D model functionality. Poor user experience impacts search engine optimization (SEO), and aggressive SEO methods may wreak havoc on user experience. A lot of marketing and self-serving information on a site, for example, with unrelated links, is sure to turn users away (Digital Agency Network).

## CHAPTER 3

### METHODOLOGY

For this research the research team used Google Scholar ([scholar.google.com](http://scholar.google.com)) to look for publications about website design since Google Scholar aggregates papers from many research databases, and design research is spread across numerous databases. The following keyword combinations were used: design, usability, and websites. There were 116,500 total hits on Google Scholar. However, due to the enormous number of studies that were generated, we opted to evaluate only the top 90 for this research project from the search criteria. The inclusion criteria for the study were that the article was published in a peer-reviewed academic journal, was written in English, and was published on or after the year 2000. We included research that was either experimental or theoretical. Human-computer interaction, marketing, e-commerce, interface design, cognitive science, and library science were among the fields represented in the study. Thirty-nine distinct studies remained after using these selection criteria, and they were included in this research. Along with this research we short-listed three UX popular websites to practically understand the key features of a website design and shortlisted 10 unsuccessful UX design websites based on google UX rankings to compare those features and elements of the website. Additionally, user feedback on various elements was collected (W3Schools). There were seventeen users that participated in the research by answering the user prospect.

### 3.1 Analysis

The research helped the team to identify 10 distinct design elements that were closely related to the user experience in the scholarly articles that affect the user experience. These elements were organization, navigation, content utility, consistency, security, credibility, simplicity, strong user capabilities, loading speed, and graphical representation. We used a 40% threshold in this study. We picked features that have been utilized in at least 40% of the studies and have included in research on effective website design. The 40% figure was chosen at random to offer researchers and designers with a list of components identified in studies on good web design as a guideline. And the short-listed websites were tested with the distinct elements from the scholarly articles to understand if those elements are necessary. For the survey, the participants did a usability testing. Usability testing is an effective way to assess a website's operation and ensure that users can traverse it easily. With the survey we were able to validate the distinct elements.

## CHAPTER 4

### RESULTS

Based on the results received from the survey and testing the 10 distinct elements we were able to identify key factors that a UX developer must focus on to maximize the user experience. Firstly, to enhance the user experience it is very necessary to provide an engaging content because the key to a strong website UX is to provide compelling content. Visitors nowadays seek more than just a product; they want to have an experience. Implementing an engaging content strategy is a wonderful method to do this. Content strategies that work focus on presenting a brand's narrative and developing a connection between a company and its customers. Content may be in any format, such as a blog article, image, video or even a distinct website, with the correct plan. Using content to develop a brand identity ensures that potential customers have a better understanding of who they are buying from.

Secondly, use layout strategically in terms of style. Brutalism is expected to grow in popularity in 2022. A stark and minimalist style to layouts with an emphasis on user experience is referred to as brutalism. A gorgeous, artistic site, on the other hand, may help promote business as an industry leader and real risk taker. Thirdly, provide information concisely and efficiently because most visitors go to websites to find some information, thing, or service. Businesses may guarantee that users obtain what they came to the website for by offering information in an elegant and ordered manner. The other important features that an UX developer should look into is optimizing website, website performance

optimization, and mobile responsiveness. These features are not costly and difficult to adopt since there are several online services and tools available to analyze a site's effectiveness and enhance any essential features. Before re-designing a website if the developer focuses on these four factors 1. Enhance the user experience- it is very necessary to provide engaging content because the key to a strong website UX is to provide compelling content. 2. Use layout strategically in terms of style. 3. Provide information concisely and efficiently. 4. Optimize website, website performance optimization, and mobile responsiveness- as these features can help the developer enhance the user experience of the website. While considering these elements, it is also important that website is tested well before the changes are made live, because users do not like broken websites. As we were testing the websites on the website user experience, we came across few websites that had broken webpages, and it does annoy the user.

Based on the study, the redesign of a normal website might take anywhere between 3 to 12 months, based on the intricacy of the project. A thorough planning exercise can aid in determining the length of time it will take to revamp website. The planning step entails thorough research and a strategy for delivering value to both business and clients. Whenever a website redesign is part of a larger strategy choice, teams generally move backward from the official launch and construct in iterations to determine what can be accomplished within the mission window. This guarantees that they can produce the finest possible outcome in the least amount of time.

## CHAPTER 5

### CONCLUSION

The current study has several limitations. To start, we chose from the first 90 research articles on Google Scholar search results due to the enormous number of studies released in this domain and the exploratory nature of our study. To reduce the quantity of search results, future research may benefit by limiting design to a single subject, time, or other area. Second, the efficiency of these website design features was not objectively evaluated. More study may be needed to properly define these factors. It's also worth noting that various professions and sectors have different goals in mind when it comes to website design, thus different website design features must be emphasized (Jiminez). Website owners and marketers, for instance, strive to create websites which maximize brand recognition, sale, and profit. Others, such as academic researchers or healthcare practitioners, are much more likely to design websites that emphasize privacy/confidentiality and content accuracy. Finally, we recommend that while establishing user engagement methods, website designers and researchers consider the design components discussed in this analysis, as well as their specific demands.



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## BIOGRAPHICAL INFORMATION

Jash Shah is a senior year student majoring in information systems from the University of Texas at Arlington. He is also a Goolsby scholar, and interested in field of blockchain, metaverse and analytics. He plans to work as technology consultant for a big four firm.