

**Understanding the Effectiveness of User Interface Design on Facebook Among College
Students**

Devin Carson, Wenzhi Chu, Samantha Evans,

The University of Mary Washington

COMM 341: Communication and Research Methods

Dr. Adria Goldman

May 2, 2021

Introduction

Effective user interface (UI) design plays a crucial role in the efficient and enjoyable functioning of digital applications, websites, and other forms of media (Fleck, 2019). UI designs aim to captivate prospective users while satisfying existing users' visual preferences (Blair-Early, 2008). In digital media, UI design is significant as it enhances user-friendliness and facilitates communication through visual rhetoric, utilizing elements like colors and typography. This non-verbal mode of communication is especially relevant in the context of social media applications. The UI serves as the medium through which individuals interact with websites and applications, and its quality can make or break a platform's success (Experience, n.d).

In order to shed light on the influence of UI design, we focused our study on Facebook, a platform renowned for its diverse UI creations. Moreover, Facebook boasts a large user base, making it an ideal subject for gathering qualitative and quantitative data (Tripin Studio, 2018). We specifically target college-aged students, recognizing their unique perspective as a subset of adults who have recently transitioned into adulthood. This population's insights are particularly valuable given their familiarity with technology and potential divergent expectations from the platform's UI design. Notably, only a few research articles have explored the effects of Facebook's UI designs on this demographic. By examining the designs that college-aged students notice and their impact, we aim to increase awareness among users, enabling them to exercise greater control over their actions (Experience, n.d).

Literature Review

In this study, we drew upon eight scholarly sources as secondary research to support our primary research. These sources have provided valuable insights into user interface (UI) design

effects and have guided our survey development. One of the sources, "User Interface Design Principles for Interaction Design" by Adream Blair-Early and Mike Zender, explores fundamental UI design principles. Another source, "User interface patterns in recommendation-empowered content-intensive multimedia applications," by Paolo Cremonesi, Mehdi Elahi, and Franca Garzotto, focuses on UI patterns in recommendation systems. We also considered "Online Persuasion in Facebook and Mixi: A Cross-Cultural Comparison" by BJ Fogg and Daisuke Iizawa, which compares persuasive elements in different social media platforms.

These studies have enhanced our understanding of UI designs on Facebook and their impact on college-aged students. One key aspect explored in the literature is using bold notifications on Facebook. Bold notifications aim to capture users' focus and create a sense of urgency through their attention-grabbing design elements, such as typography, colors, and visual cues. These notifications trigger heightened awareness and curiosity, prompting users to engage with the content or take immediate action. Psychologically, bold notifications leverage the principle of saliency, drawing users' attention amidst the abundance of information on the platform.

Another significant factor discussed in the literature is the presence of prompts for personal information on Facebook. These prompts serve as suggestions or requests for users to provide or update their personal details. Encouraging self-disclosure and facilitating social identity construction for personal information fosters a sense of self-expression and social connectedness. Users perceive these prompts as opportunities to showcase their identity, connect with like-minded individuals, and tailor their Facebook experience to align with their preferences and interests.

Furthermore, the literature highlights the role of various UI icons on Facebook in shaping user psychology. Each UI icon carries symbolic meaning and serves as a visual cue for specific actions or functionalities. For example, the iconic "like" button, represented by a thumbs-up icon, has become deeply ingrained in Facebook's UI and is associated with expressing approval or appreciation. These UI icons contribute to the overall usability and user-friendliness of the platform by providing intuitive and efficient means of interaction. Psychologically, the consistent use of these icons creates a sense of fluency and reduces cognitive effort, enabling users to navigate and engage with the platform more efficiently.

The literature exhibits several common themes. Firstly, all the readings emphasize the significance of UI design in facilitating effective software and digital media usage. Secondly, they highlight that well-designed UI is crucial to attracting users to specific applications and influencing their preferences. Thirdly, the literature acknowledges the impact of UI on users' moods and actions. Fourthly, the studies underscore the role of UI designs as a form of visual rhetoric, conveying messages to users. Finally, the literature consistently emphasizes the need for continuous improvement and adaptation of UI designs to ensure accessibility and alignment with current design styles. Even subtle changes in UI design elements, such as color choices, can significantly impact user experiences and emotions.

The insights from these studies have significant implications for our research. They inform our understanding of the specific UI designs on Facebook that will likely impact college-aged users. By examining bold notifications, prompts for personal information, and other UI icons, we aim to uncover how these design elements influence user perceptions, motivations, and behaviors. The literature helps us identify dominant themes and formulate our survey to gather high-quality data aligned with the specific population.

Our research adds to the existing literature in several ways. Firstly, we provide a direct perspective from actual users who interact with UI designs, offering a more nuanced understanding compared to generic perspectives on UI. Additionally, our study focuses on a specific application, Facebook, which incorporates Recommendation-empowered Systems (RS), enabling us to examine how UI designs within this context impact user experiences (Cremonesi et al., 2017). Furthermore, our qualitative study complements existing quantitative research on UI designs and their effects. We delve into a multi-faceted application like Facebook, which serves various purposes while exploring users' personal experiences with different visual elements.

Research Question

The design of user interfaces (UI) plays a critical role in engaging and retaining users on digital platforms, with subtle design choices capable of influencing user behavior. As a central social media platform, Facebook has optimized its UI to foster user addiction and extended engagement. The color scheme, primarily blue and white, creates a calm and soothing environment while choosing icons for key pages simplifies navigation. These design elements, along with other psychological factors, contribute to the addictive nature of the platform. However, despite the existing research on UI design and user engagement, a notable gap exists in understanding how UI design specifically impacts college-aged students.

While some studies have explored the habits and effects associated with UI design, there needs to be more research focusing on the direct influence of UI design on college-aged users. Given that design choice are driven by psychological factors that impact addictive behaviors, self-esteem, and individual behaviors, it is crucial to examine how UI design affects this

particular subgroup. By investigating the question, "In what ways does UI design on the Facebook application affect college-aged users?" we aim to bridge this research gap and uncover the specific implications of UI design for this demographic.

This research question holds significance as it explores the impact of UI design and sheds light on how design choices can shape the experiences and behaviors of college-aged students on social media platforms. By addressing this question, we can gain valuable insights into the effects of UI design and contribute to the broader understanding of user engagement and user interface optimization.

Proposed Method

We employed an anonymous online qualitative survey administered through Google Forms to investigate the research question. The survey consisted of 19 questions designed to assess participants' experiences and perceptions of the user interface design of the Facebook app. Data collection occurred from April 15, 2021, to April 25, 2021.

We utilized both open and closed-ended questions to gather specific information about participants' awareness of design details and their potential correlation with the user interface's impact on them. In order to focus our study on a specific subgroup, namely college-aged individuals, we employed judgmental sampling. We included only participants between 18 and 24 who actively used the Facebook application. Individuals had to confirm their eligibility before participation based on these criteria. Ultimately, our sample consisted of 33 participants within the 18-24 age range.

Upon receiving the survey responses, we conducted a thematic analysis to identify dominant themes within the data. Our unit of analysis involved unpacking and analyzing the individual responses provided by our participants.

Findings

Despite the limited sample size of our survey, consisting of 33 respondents, our research provides valuable insights into the user experience of the Facebook app. While the small sample size may be seen as a limitation, it upholds the significance of our findings within the context of qualitative research. By analyzing the qualitative data collected through the survey, we identified recurring themes and patterns that offer meaningful insights into the users' perspectives and preferences. These themes emerged from the open-ended responses provided by participants. The responses were analyzed thematically to identify common patterns and recurring topics.

The research on UI design on Facebook encompasses several key themes that shed light on the platform's influence. Firstly, the study explores the optimization of user experience (UX), examining how different UI designs impact user satisfaction, ease of navigation, and overall usability. Secondly, it delves into the aesthetics and visual appeal of Facebook's UI creations, analyzing elements such as color schemes, typography, and layout to understand their contribution to the platform's overall aesthetic appeal. The research also focuses on information organization and accessibility, investigating how the UI design organizes and presents information to users, ensuring clarity of labels and buttons, and incorporating accessibility features for diverse user needs. Furthermore, the study explores how specific UI designs on Facebook encourage user engagement and interaction, investigating features like notifications, messaging systems, and social sharing functionalities. Additionally, the research highlights how

Facebook's UI design reflects and reinforces its brand identity, considering the consistency of design elements with the overall brand image, including logo placement, visual style, and the use of brand colors. Lastly, the study examines the adaptability and responsiveness of Facebook's UI design to different devices and screen sizes, analyzing the effectiveness of its mobile user interface and adherence to responsive design principles. These themes offer valuable insights into the impact and effectiveness of UI design on Facebook, contributing to a better understanding of the platform's user experience and overall success.

Discussion

The findings from our research indicate that the user interface (UI) influences and alters our actions and time spent on social media, particularly on Facebook. Many respondents emphasized the importance of an easy-to-use interface as the most crucial feature of the application. An intuitive and user-friendly UI creates a uniform and welcoming experience, making tasks such as finding people, posting and sharing content, and scrolling through new updates enjoyable. While UI layouts and specifics may vary across platforms, the ultimate goal remains consistent: to engage users for longer durations.

However, it is essential to acknowledge the limitations of our research, particularly the small sample size. The restricted number of respondents hindered the identification of broader themes, with the analysis primarily focused on the select groups that participated in the survey. In order to enhance future studies, a larger sample size should be employed to draw more comprehensive conclusions and facilitate a deeper exploration of the research question. Additionally, incorporating additional survey questions about advertisements and the user experience surrounding them would provide valuable insights.

The anonymous online qualitative survey received 33 responses, predominantly from women, African Americans, and college seniors who met the criteria of being college-aged and regular users of the Facebook application. A common theme among the responses was satisfaction with the overall appearance and ease of use of the Facebook app. Notably, respondents reported that ads on Facebook did not significantly impact their usage time. This finding aligns with Facebook's objective of ensuring ads do not disrupt the user experience. The user interface and design of the application successfully integrate advertisements, including still images, videos, and events, without negatively affecting the overall user experience.

In addition to ads, other survey questions explored various aspects of a successful user experience, including navigation ease, intuitiveness of icons, prompts for personal information, exploration of new features, and error correction. Across these dimensions, respondents consistently expressed satisfaction, rating the application as easy or very easy to use. The research on this topic highlights the crucial connection between a well-designed user interface and the overall user experience on the Facebook application. Facebook's objective of engaging users for extended periods, which attracts advertisers, is exemplified by the finding that ads do not adversely affect the user experience. The successful integration of advertisements, which are vital to the company's success, without compromising user experience underscores the effectiveness of the platform's UI design.

Our research underscores the significance of a well-designed user interface in shaping the user experience on Facebook. The ability to keep users engaged while seamlessly incorporating advertisements reflects the platform's effectiveness in achieving its objectives. Nonetheless, it is essential to recognize the limitations of our study, particularly the small sample size, and consider the potential impact on the generalizability of our findings. Future research endeavors

should strive for larger sample sizes and explore additional user experience dimensions to enhance further our understanding of how UI design influences user behaviors on social media platforms.

Conclusion

The user interface or UI certainly impacts a user's time on an application. A UI does this subtly by creating uniformity and clarity through its navigation. Ease of use is the most important feature that respondents said about Facebook. Ease of use creates a streamlined and memorable platform that connects sections of the application without confusion. By doing so, the user spends less time worrying about how to navigate and more time absorbing content and potential advertisements. By exposing the user to more advertisements than they might not see, a side effect of a successful UI is the overexposure of advertisements. This could have the user spend more money on products or services they might not have bought otherwise or show relevant and meaningful advertisements to a user needing them. Further research into the topic related to advertisements and UI is needed.

There is little currently available in publication on user interfaces and college-aged students. It is a niche topic with an evolving medium and technology. The goal would be to use this research to explore further topics or replicate the entire process again with a much larger sample size. The online presence of college-aged students on Facebook is 85% per Techcrunch.com, which warrants further research. If any other themes or identifiable patterns of UI traits across other social media sites are examined, that would contribute to this research topic.

References

Blair-Early, A., & Zender, M. (2008). User interface design principles for interaction design. *Design Issues*, 24(3), 85-107. doi:10.1162/desi.2008.24.3.85

Cremonesi, P., Elahi, M., & Garzotto, F. (2017). User interface patterns in recommendation-empowered content intensive multimedia applications. *Multimedia Tools and Applications*.

Experience, W. L. in R.-B. U. (n.d.). Social Features on Intranets: Case Studies | Free NN/g Report. Nielsen Norman Group. Retrieved November 22, 2020, from <http://www.nngroup.com/reports/intranet-social-features-case-studies/>

Experience, W. L. in R.-B. U. (n.d.). Social Media User Experience. Nielsen Norman Group. Retrieved November 22, 2020, from <http://www.nngroup.com/reports/social-media-user-experience/>

Experience, W. L. in R.-B. U. (n.d.). Why Microinteractions are Important for UX (Video). Www.Nngroup.com. Retrieved November 22, 2020, from <https://www.nngroup.com/videos/microinteractions/>

Gomes, G., Duarte, C., Coelho, J., & Matos, E. (2014). Designing a facebook interface for senior users. *The Scientific World Journal*, 2014
doi:<http://dx.doi.org.umw.idm.oclc.org/10.1155/2014/741567>

Gruzd, A. (2013). Emotions in the twitterverse and implications for user interface design. AIS Transactions on Human-Computer Interaction, 5(1), 42-56. doi:10.17705/1thci.00053

Jan 18, R. F. in U., & 2019. (n.d.). What is UI Design? Dribbble. Retrieved November 22, 2020, from <https://dribbble.com/stories/2019/01/18/what-is-ui-design>

Ju, H. S. (2017). A Study on the development of experts according to UI / UX understanding. KOREA SCIENCE & ART FORUM, 31, 401–411.
<https://doi.org/10.17548/ksaf.2017.12.30.401>

Jung, W. (2017). The effect of Representational UI design quality of mobile shopping applications on USERS' intention to shop. Procedia Computer Science, 121, 166-169.
doi:10.1016/j.procs.2017.11.023

Kurt, Sevinc, and Kelechi Kingsley Osueke. "The Effects of Color on the Moods of College Students." SAGE Open, vol. 4, no. 1, 2014, p. 215824401452542.,
doi:10.1177/2158244014525423.

Nielsen, J. (2017). 10 Heuristics for User Interface Design: Article by Jakob Nielsen. Nielsen Norman Group. <https://www.nngroup.com/articles/ten-usability-heuristics/>

Tripin Studio. (2018, January 2). What is UI & UX Design? Hacker Noon; Hacker Noon.
<https://hackernoon.com/what-is-ui-ux-design-1f01e9dbbf02>

UX quote by Don Norman. #Design | Design quotes, Quotes, Inspirational quotes. (n.d.).
Pinterest. Retrieved November 22, 2020, from
<https://br.pinterest.com/pin/198299189822466421/>