

ABSTRACT

This research explores the development and evaluation of a cohesive design system aimed at improving user experience and usability across multiple digital platforms at Telkom University. Focusing on atomic design principles, the study attempts to address inconsistencies and usability challenges across multiple university applications, including SATU, iGracias, and SIRAMA. Through a mixed-method approach consisting of qualitative heuristic evaluation and quantitative severity assessment, critical components were systematically analyzed for usability issues and assessed to prioritize improvements through prioritization metrics. Findings revealed that inconsistencies in visual design and interactive elements negatively impacted user experience, underscoring the need for a unified design system to ensure consistency and accessibility. Prioritization metrics were developed to categorize identified issues based on impact and implementation effort, creating clear design priorities for immediate and long-term improvements. Quick wins with high impact and low design effort were highlighted as the most important for improvement, while more complex components were designated as major projects that required more time to develop. The study concludes that a standardized design system can significantly improve usability, offering a structured approach to addressing recurring design inconsistencies. Recommendations are made to include periodic evaluation and updating of design systems, promoting a user-centered approach that aligns with the evolving digital needs of the academic context. The study also provides insights for future research on the scalability of design systems in complex digital multi-product environments to advance and enhance user experiences in higher education.

Keywords: Design system, UI/UX design, Digital products, Academic