

Enhancing User Experience of Websites Through Eye-Tracking Analytics: A Comparative Study of Apple Store and Google Store

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Abstract

User experience (UX) has become one of the key factors in determining the effectiveness of modern digital interfaces. Websites must provide clear navigation, intuitive design, and smooth interaction in order to support user satisfaction and task completion. The traditional UX evaluation methods, like questionnaires, surveys, interviews, and traditional metrics like click-through rates and session durations, offer valuable insights.

However, these techniques present significant limitations, since they often rely on user feedback that may not accurately reflect real user behavior. With the advancement of technology, eye tracking devices can objectively analyze user attention and interaction by recording gaze behavior during website navigation. This study compares two well-known e-commerce platforms: the Apple Store website and the Google Store website. Participants were asked to complete a product-selection task while a Tobii Pro Fusion device recorded their gaze behavior. Satisfaction surveys were collected before and after the session. Statistical analysis was performed to examine task completion duration, fixation patterns, and user satisfaction ratings. The research showed that users completed the tasks slightly faster with the Apple Store website and had more focused visual attention during the interaction with the website. In contrast, the Google Store interface generated more dispersed gaze patterns and a higher number of fixations, suggesting a visual search effort. Visual clarity was the one dimension where the difference between the two platforms was statistically significant. The findings demonstrate that eye-tracking analysis provides a behavioral dimension to UX evaluation and interface design, that the traditional UX evaluation techniques alone cannot provide.

Keywords: User experience, eye-tracking, usability evaluation, visual attention, e-commerce websites