

A/B TESTING AND MOBILE APP INTERFACE OPTIMIZATION WITH THE HELP OF ARTIFICIAL INTELLIGENCE

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A/B testing in mobile applications makes it possible to experimentally evaluate different interface variants (colors, element placement, text) and select the optimal option in terms of conversion and user-friendliness [1]. However, the classical approach to A/B testing is quite resource-intensive: it requires a significant amount of traffic and the involvement of many participants in the experiment in order to obtain statistically valid results [2]. Therefore, the need to automate this process becomes particularly pressing.

Using artificial intelligence can alleviate the issue of lacking “live” users by simulating their interaction with the interface. Although AI cannot fully replicate real human behavior, it can identify and imitate key patterns with an acceptable margin of error, which already helps save a considerable amount of time and money. Furthermore, an intelligent module can select the most promising design variants in real time by evaluating metrics such as engagement level, session duration, or clicks on active elements, and then quickly discard ineffective options [3].

It is important to note that this approach scales well: even with numerous UI/UX variations and a large user base, machine learning algorithms remain efficient and can run experiments almost continuously. This enhances the effectiveness of mobile app updates and allows teams to focus on further interface improvements, while minimizing resource expenditures during the testing stage.

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