

ASSESSING THE IMPACT OF AI SOLUTIONS ON USER EXPERIENCE IN EDTECH PLATFORMS

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Abstract

This work examines the impact of AI technologies on the UX-metrics. It has been noted that there are currently various AI tools that have already proven their positive impact on the learning process. Such tools contribute to improved performance and reduced anxiety, but their impact on the user experience has not yet been fully studied. The purpose of this work is to investigate the impact of AI solutions on the user experience on educational platforms in the EdTech. To achieve this goal, key metrics for evaluating user experience were identified. Next, a survey is conducted among experts specializing in the EdTech sector to quantitatively assess platform performance after the implementation of AI tools. Based on the survey results, practical recommendations are developed for EdTech businesses with the aim of improving user experience.

Keywords

Artificial intelligence, User experience, UX metrics, Edtech, AI integration

ОЦЕНКА ВЛИЯНИЯ ИИ-РЕШЕНИЙ НА ПОЛЬЗОВАТЕЛЬСКИЙ ОПЫТ В EDTECH-ПЛАТФОРМАХ

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Аннотация

В данной работе рассматривается влияние искусственного интеллекта на качество пользовательского опыта. На данный момент существуют различные ИИ-инструменты, уже доказавшие свое положительное влияние на процесс обучения, однако их влияние на пользовательский опыт все еще остается малоизученной областью исследования. Целью данной работы является исследование влияния ИИ-решений на пользовательский опыт в образовательных платформах. Для достижения поставленной цели были выявлены ключевые метрики пользовательского опыта. В работе представлены результаты опроса среди экспертов, специализирующихся в EdTech секторе, для количественной оценки влияния ИИ на UX-метрики. На основе результатов опроса сформированы практические рекомендации для EdTech бизнеса с целью улучшения пользовательского опыта.

Ключевые слова

Искусственный интеллект, пользовательский опыт, UX-метрики, Edtech, внедрение ИИ

In the contemporary digital landscape, Artificial Intelligence (AI) is being integrated across various domains, ranging from global enterprises to emerging startups. The education sector, specifically EdTech, is undergoing continuous evolution through the implementation of diverse AI-driven solutions. Currently, the most transformative and relevant AI tools in this sector include Intelligent Tutoring Systems (ITS), Generative AI, Machine Learning

(ML), and Natural Language Processing (NLP) [1]. Researches indicate that AI-enabled adaptive learning can enhance student performance by 30% and reduce anxiety by 20%. These technologies provide flexible and comprehensive solutions tailored to individual learner needs, thereby rendering the pedagogical process more comfortable and efficient [2].

However, the majority of studies concerning AI implementation focus primarily on improving the educational process rather than the core components of User Experience (UX), creating several research gaps. First, it remains unclear how AI integration specifically influences UX quality and its dimensions within the context of EdTech platforms. Second, there is a lack of quantitative data regarding which AI technologies align most effectively with the needs of EdTech users. Consequently, the objective of this study is to investigate the influence of AI solutions on user experience within EdTech platforms.

This research involves an expert survey conducted among stakeholders within the EdTech sector. The survey aims to quantitatively measure the impact of AI solutions on specific UX metrics. In the first phase of the study, the key metrics governing UX are systematized and identified:

1. User engagement: the degree of student involvement in the educational process, specifically how interest in completing the training is either reinforced or diminished.
2. User motivation: the drive to consistently complete assignments and progress through courses, measured by the frequency of platform access.
3. Learner autonomy (independence): the extent to which platform functions compensate for the need for face-to-face interaction with an instructor.
4. User loyalty: how proposed features influence a user's willingness to return for new courses and recommend the platform to peers, involving metrics such as Retention Rate and Net Promoter Score (NPS).
5. User satisfaction: the impact of AI features on the convenience for educators in curriculum planning and progress reporting, as well as the usability of AI assistants for students.
6. Learning and information retrieval efficiency: the speed at which learners acquire knowledge and locate necessary information [1].

The second phase of the study utilizes an expert survey to quantitatively assess the influence of AI tools on the described metrics and to formulate practical recommendations for EdTech businesses. Experts are invited to evaluate the magnitude of change in UX metrics following AI implementation using a 10-point scale. Ultimately, the study determines the mean value of UX metric shifts in the EdTech sector and ranks the changes in key metrics resulting from AI technology integration. This allows for the formulation of strategic recommendations for businesses developing AI integration strategies to enhance user experience.

The results of this study will enable the measurement of the degree of AI influence on the user experience of EdTech platforms. The practical significance of the work lies in providing actionable recommendations for EdTech businesses on integrating AI to optimize the user experience within their products.

Literature

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