

“THE USE OF AI IN PROCESS OF INTERACTIVE MULTIMEDIA E-LEARNING COURSE DEVELOPMENT”

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In today's information-driven world, where technology offers numerous new opportunities for learning, electronic multimedia e-learning courses are in high demand among students. These publications integrate textual information, audio, video, animation, and interactive elements, making the learning process more engaging and accessible. Moreover, they enhance the comprehension of complex concepts through visualization and interactive engagement. Modern technologies enable the adaptation of multimedia publications to the individual needs of users, ensuring a personalized learning experience. However, as educational technologies continue to evolve rapidly, the implementation of innovative solutions is essential to enhance learning effectiveness.

Artificial intelligence (AI) introduces new possibilities for personalizing learning paths, adapting content to students' needs, and automating knowledge assessment. The integration of AI tools in the design of interactive multimedia e-courses not only increases learner engagement and improves knowledge retention but also overcomes the limitations of conventional software. One of the defining characteristics of electronic multimedia e-learning courses is interactivity, which enables users to actively engage with content rather than passively consume it. This interactivity can include features such as adaptive assessments, built-in gamification elements, personalized settings, and feedback mechanisms. The use of multimedia fosters dynamic and interactive content delivery, significantly enhancing both comprehension and learner engagement.

Despite the extensive standard features offered by Adobe Captivate, its full potential is unlocked through the integration of AI tools. AI plays a crucial role in the development of interactive educational materials from the initial content creation stage, facilitating the generation of educational videos (including avatars, subtitles, and translations, if needed), audio materials (not only exercises but also background music and narration), and graphical elements such

as animations. Additionally, AI enables the personalization of content based on each user's knowledge level and learning needs. AI-driven automation further supports the creation of assessments, textual content, adaptive learning programs, and intelligent recommendations, thereby increasing the efficiency of the educational process. Moreover, AI facilitates the integration of chatbots and virtual assistants that provide instant student support and foster active participation in learning.

The author of this study tested the application of AI tools in the design of the electronic multimedia e-learning course "Sprachenvirtuose: Interaktives Deutschtraining für Fortgeschrittene" using Adobe Captivate. The key AI-driven functionalities implemented in the course development process include:

1. Generating precise and standardized instructions while outlining task completion algorithms to prevent misunderstandings and ambiguities.
2. Providing personalized learning recommendations, selecting study modules tailored to students' preferences, abilities, and performance.
3. Evaluating open-ended responses for compliance with requirements and suggesting improvements.
4. Overcoming Adobe Captivate's software limitations by incorporating custom HTML and JavaScript code.
5. Acting as a consultant to assist with complex interaction logic.

Thus, the integration of artificial intelligence in the development of electronic multimedia educational courses opens new avenues for personalization and enhances the effectiveness of the learning process. AI-driven tools facilitate deeper comprehension and increase learner motivation. The incorporation of interactive AI-powered elements ensures continuous support for users and expands opportunities for independent learning. Therefore, artificial intelligence serves as a powerful tool in creating innovative educational environments that align with the demands of modern society.

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