

Analyzing the Potential of Using ChatGPT in a Serious Game for Learning Scrum Principles

Bachelor or Master-Thesis



TECHNISCHE
UNIVERSITÄT
DARMSTADT



Motivation

The adoption of Agile methodologies, particularly Scrum, has become increasingly prevalent in the software development. As a result, there is a growing need for engaging learning environments that allow individuals to grasp the fundamental principles and practices of Scrum. Virtual Reality (VR) has emerged as a powerful tool for immersive and interactive experiences. Combining VR with conversational AI, such as ChatGPT, can provide a unique opportunity to create an engaging learning environment where players can learn Scrum principles in a hands-on and interactive manner.

The motivation behind this proposal is to investigate the feasibility of integrating ChatGPT into an existing VR game focusing on teaching Scrum. ChatGPT will be utilized within the game to empower AI-driven virtual characters, generate quizzes based on the player's knowledge, and enhance the overall narrative for a more engaging experience.

Tasks

This thesis aims to explore the potential of this novel approach and assess its impact on learning outcomes and user experience.

1. Literature research of existing literature, particularly conversational AI
2. Integration of ChatGPT in an existing VR-based game
3. Evaluation with participants
4. Detailed analysis of results to evaluate the potential of ChatGPT in serious games. Identifying strengths, limitations, and potential areas for improvements.

The thesis can be written in German or English.

Requirements

- Basic knowledge and understanding of Agile methodologies and Scrum principles
- Basic programming skills in Unity 3D game engine, particularly C#
- Familiarity with conversational AI frameworks and libraries (e.g., ChatGPT, OpenAI API).

Keywords

ChatGPT, Scrum, Virtual Reality

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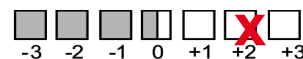
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Theoretical (Analytical)



Empirical (Simulation)



Practical (Implementation)



Literature