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Bachelorarbeit / Masterarbeit

Analyzing the Potentials and Challenges of Blockchain for the Metaverse

Since the Internet became more and more prevalent in the 1990s, virtual content has increasingly permeated everyday lives of many people. The improvement of existing and the development of new technologies and tools such as virtual reality glasses, robotics, artificial intelligence, IoT, blockchain or mobile networks reinforce this trend and enable a continuous evolution of the Internet. The boundaries between virtual and real worlds become increasingly blurred, often referred as to the development towards the Metaverse.

In this context, blockchain technology is regarded as the driver for the emergence of the Metaverse, for example, to lever decentralized transactions or representing values. However, there is a lack of an in-depth examination of the existing potentials as well as the challenges posed by using blockchain technology for the Metaverse.

The aim of this paper is to provide an overview of current research on the use of blockchain technology in the Metaverse and to structure existing approaches, for example in the form of a taxonomy. Alternatively, existing potentials and challenges can be elaborated by means of a case study (e.g., Decentraland). The focus of the work will be defined in an initial meeting with the supervisors. The scope varies depending on the type of thesis (e.g., Bachelor's or Master's thesis).

Empfohlene Einstiegsliteratur:

- Lee et al. (2020) All One Needs to Know about Metaverse: A Complete Survey on Technological Singularity, Virtual Ecosystem, and Research Agenda
- Jeon et al. (2021) Blockchain and AI Meet in the Metaverse
- Garousi et al. (2018) Guidelines for including grey literature and conducting multivocal literature reviews in software engineering
- Nickerson et al. (2013) A Method for Taxonomy Development and its Application in Information Systems
- https://decentraland.org/

Betreuer: Feulner, Simon, M.Sc.; Schellinger, Benjamin; M.A.