Institut für Informatik

Didaktik der Informatik / Informatik und Gesellschaft



## Call for Bachelor or Master Thesis

## "Virtual Reality Learning Application Design and Development Driven by Subject Didactics "

Description:

Virtual Reality (VR) learning applications can be quite useful for learning different subjects and training various skills. However, it remains to be explored how to effectively integrate VR into school, vocational training, or higher education contexts with appropriate subject-specific, didactically-driven design. VR learning applications affordances, as VR-specific visualizations, offer special such embodiment virtual environment, the ability to in а safely experience potentially dangerous situations, opportunities for psychomotor learning, collaboration and cooperation in symmetrical or asymmetrical formats within virtual environments, nonverbal communication in virtual environments, and much more.

The central question of this thesis is the design and development of a VR learning application for a school, vocational training, or higher education subject by integrating subject-specific didactics into the design process. The development of a prototypical application will be required. Master's students will further be required to empirically evaluate their applications as part of the thesis.

Requirements:

- Development experience with Unity or similar engines, or willingness to learn this skill.
- Working with subject specific didactics in the design process.

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