



ShARe: Asymmetric Multi-User Augmented Reality

Open Bachelor/Master Thesis

Background

One of the biggest challenges of head-mounted displays (HMDs) is excluding people in the vicinity, such as friends or family. This could be solved for augmented reality (AR) HMDs by attaching a projector that can display augmented content onto planar surfaces to include the outside users (non-HMD users). Still, there are challenges, such as conflicting visualization between augmented and projected content, different points of view (HMD vs. non-HMD users) on 3D content, and the distribution of information. Moreover, the design space for asymmetric multi-user AR applications is largely unknown.

Research Goal

The aim of this thesis is to evaluate the applicability of asymmetric multi-user AR and arising social dynamics. For this, a prototype based on the ShARe concept (see images) should be designed and implemented. Finally, the defined hypothesis should be evaluated by conducting a study.

Based on bachelor/master level
the scope is adapted.

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