

# Phonem-dependent directional speech sound radiation of embodied conversational agents in immersive virtual environments

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The project empirically examines the dynamic features of speech source directivity of both natural and artificial talkers. It combines innovative contributions from acoustics, gestures and mimics, as well as Virtual Reality (VR) to develop more realistic embodied conversational agents (ECAs). The new spatial and temporal source data representations can later be implemented in dynamic binaural room-acoustic simulations and in immersive virtual environments (IVEs). In order to evaluate the quality of the generated simulation, the plausibility and the authenticity of ECAs interacting with test subjects will be investigated in multimodal settings.

