ALL INTERACTION IS SITUATED, ALL LANGUAGE IS GROUNDED: IMPLICATIONS FOR THE DESIGN OF SPOKEN DIALOGUE SYSTEMS

David Schlangen

Universität Potsdam
david.schlangen@uni-potsdam.de

Abstract: In this talk, I will try to do two things. I will argue for the claim made in the title – that any interaction happens in a situational context that is relevant for its interpretation, and that any language needs to be grounded in the physical and social world in order to be meaningful – and for the cost that ignoring this fact incurs. Interleaved with this motif, I will review some of the progress made in the field of (spoken) dialogue systems in recent years (taking 2013, when I previously addressed this conference, as a convenient starting date). In the first thread, I will describe research and design opportunities that arise from taking this "situated & grounded" stance. I will argue that the necessary basic technologies here are incremental processing and conversational grounding and adaptation, and I will show some applications of them from our work and that of others. In the second, connected thread, I will look at how the powerful new methods that have become available in recent years have made it possible to address some abstractions that used to be made, while bringing in others that will require further innovations to be tackled.