

Uncertainty management in vocal interaction interfaces, seamlessly modeling and handling errors in interactive processes

Fabrice Lefèvre

Université d'Avignon, France

Fabrice.Lefevre@univ-avignon.fr

Recent advances in vocal interfaces are mostly based on the spread of data-driven approaches over all included modules. Speech recognition and synthesis have been treated that way since long already and are clearly ready for the market today, more recently speech understanding and interaction management have been highly investigated with some noticeable breakthroughs, finally to a smaller extent solutions are yet available for language generation. Among many advantages these machine-learning approaches share to rely on probabilistic models and thus permit to model and manage uncertainty during vocal interaction course. This talk intents to highlight to which extent this capacity is also an efficient way to handle all sorts of communication errors seamlessly, that is without the need for dedicated error recovery expertise.