Investigating the evaluation of spoken dialogue systems: towards a coordination of heterogeneous evaluation practices

Résumé

This thesis tackles the issue of evaluation in the field of Spoken Dialogue Systems (SDS). Faced with a great disparity of evaluation needs and methods, this work is an attempt to unification between distinct forms of evaluation, locally adjusted according to contextual and applicative factors. It develops the fundamental idea that: evaluation is an argumentative and justificative support process to decision-making.

We propose two main contributions, based on an original compositional definition of evaluation metrics. First, observing that the absence of common conceptual foundations for evaluation hinders cooperation within projects, we present an application framework tailored to rationalize the design of evaluation instruments inside and across the project teams. And second, we set up a formal description scheme for SDS evaluation metrics that permits to better discern their construction structures, and endeavour varied comparison exercises.

Mots-clefs : Evaluation, Spoken Dialogue Systems SDS), Community of Practice, Key Performance Indicator (KPI), Collaborative project, Formal description framework, Knowledge Management

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