

Language-Based Interfaces and their Application for Cultural Tourism

—Invited Lecture—

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Abstract

Language processing has a large practical potential in intelligent interfaces if we take into account multiple modalities of communication. Multimodality refers to the perception of different coordinated media used in delivering a message as well as the combination of various attitudes in relation to communication. In particular, the integration of natural language processing and hypermedia allows each modality to overcome the constraints of the other, resulting in a novel class of integrated environments for complex exploration and information access. Information presentation is a key element of such environments; generation techniques can contribute to their quality by producing texts *ex novo* or flexibly adapting existing material to the current situation. A great opportunity arises for intelligent interfaces and language technology of this kind to help realize systems for individual-oriented cultural tourism. In the talk reference will be made to some prototypes developed at IRST that were conceived for this specific area. A just finished European project concentrated on the combination of two forms of navigation taking place at the same time—one in information space, the other in physical space. A new project will integrate various aspects of IRST research, i.e. language, agents, sensory systems, virtual environments, with the aim of introducing advanced technology in the cultural tourism domain.