

Unsupervised Assistive and Adaptative Intelligent Agent in Smart Environment

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Abstract : The adaptation paradigm is a basic defining feature for pervasive computing systems. Adaptation systems must work efficiently in a smart environment while providing suitable information relevant to the user system interaction. The key objective is to deduce the information needed information changes. Therefore relying on fixed operational models would be inappropriate. This paper presents a study on developing an Intelligent Personal Assistant to assist the user in interacting with their Smart Environment. We propose an Unsupervised and Language-Independent Adaptation through Intelligent Speech Interface and a set of methods of Acquiring Knowledge, namely Semantic Similarity and Unsupervised Learning.

Keywords : intelligent personal assistants, intelligent speech interface, unsupervised learning, language-independent, knowledge acquisition, association measures, symmetric word similarities, attributional word similarities

Conference Title : ICMI 2015 : International Conference on Multimodal Interaction

Conference Location : London, United Kingdom

Conference Dates : January 19-20, 2015