

A Semantic Framework for Assistive Technologies Description to Strengthen UI Adaptation

Nikolaos Kaklanis, Konstantinos Votis, Konstantinos Giannoutakis and Dimitrios Tzovaras

Information Technologies Institute, Centre for Research and Technology Hellas, Thessaloniki, Greece
{nkak, kvotis, kgiannou, Dimitrios.Tzovaras}@iti.gr

Abstract. The present paper presents the Semantic Framework for Content and Solutions, an ontological framework that enables the classification of various assistive technologies (both software and hardware) according to well-known accessibility standards, such as the ISO 9999 standard, and also the description of all the supported adjustments/settings and their alignment with similar settings of other technologies. This semantic framework is a key component of the whole Cloud4all/GPII infrastructure and strengthens the UI adaptation process as it enhances the inference capabilities of the Rule-based Matchmaker, another component of the Cloud4all/GPII infrastructure that tries to match user needs with the corresponding configurations of different assistive technologies using rules.

Keywords. Semantic alignment, ontology, assistive technologies, application classification