

D3WA+: A Case Study of XAIP in a Model Acquisition Task

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Recently, the D3WA system was proposed as a paradigm shift in how complex goal-oriented dialogue agents can be specified by taking a declarative view of design. However, it turns out actual users of the system have a hard time evolving their mental model and grasping the imperative consequences of declarative design. In this paper, we adopt ideas from existing works in the field of Explainable AI Planning (XAIP) to provide guidance to the dialogue designer during the model acquisition process. We will highlight, in the course of this demonstration, how this problem presents unique challenges to the XAIP setting, including having to deal with a different user persona as the domain modeler rather than the end-user of the system and consequently having to deal with the unsolvability of models in addition to explaining generated plans. We will demonstrate these capabilities in the form of an "explainable extension" to the previous D3WA tool.

Submitted by invitation from the ICAPS 2020 Special Track on Knowledge Engineering, Integrated Execution, and System Architectures.

Video: https://youtu.be/HMVMQnzMBsc