Integrating Domain Knowledge into Neural Technical Language Processing

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Researchers Catch-up hosted online from UWA

Structured data is widely available in the maintenance domain in many forms including asset hierarchies and FMEA (Failure Mode and Effects Analysis) tables. There is a significant volume of valuable knowledge in this data that can assist machine learning systems in making accurate predictions on unstructured text, such as identifying entities (such as items, activities and observations). Our research therefore focuses on incorporating structured domain knowledge into neural networks via probabilistic logic programming. In this presentation we will provide an overview of our case study on multi-label hierarchical entity typing and will present our preliminary results. We will also provide an outlook to future directions of our research that will be of significant benefit to the maintenance domain

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