

Assignment No. 11

Semester	B.E. Semester VII – Computer Engineering
Subject	Natural Language Processing
Subject Professor In-charge	Prof. Suja Jayachandran
Academic Year	2024-25
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Topic	Paper Review
Paper	XL-WSD: An Extra-Large and Cross-Lingual Evaluation Framework for Word Sense Disambiguation

Review:

The paper titled "XL-WSD: An Extra-Large and Cross-Lingual Evaluation Framework for Word Sense Disambiguation" presents a new benchmark for evaluating Word Sense Disambiguation (WSD) models across 18 languages from six different language families. It aims to address the limitations in multilingual WSD evaluation by offering a unified multilingual sense inventory and more than 70,000 new gold-standard annotations. The framework supports cross-lingual testing and includes language-specific silver training data.

The study evaluates both neural models, such as Transformer-based architectures, and knowledge-based approaches. Results indicate that large multilingual models show promise for zero-shot transfer, particularly in low-resource languages, although challenges remain for representing less frequent word meanings. The paper extends

previous English-focused benchmarks by including new data for English as well as additional coarse-grained evaluation sets.

The framework, along with the evaluation suite and code, is made available to the research community to foster further development in multilingual WSD.