

WOAH: Preliminaries to Zero-shot Ontology Learning for Conversational Agents

Gonzalo Estrán Buyo

Universidad Politécnica de Madrid

gonzalo.esbuyo@alumnos.upm.es

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Overview

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Scenario

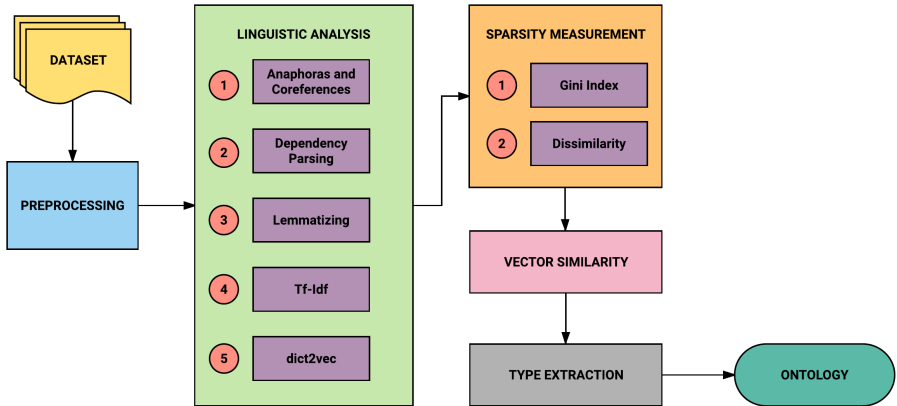
- Conversational Agent (chatbot)
- **Intents** (actions) and entities
- **Hierarchy** of services and products
- **Ambiguities**: similar entities in different intents
- Intent-entity **mapping**
- Word **embeddings**: word2vec?

Solution

Learn a weighted **Ontology** that extracts and relates entities and intents.

- ① By *richness of the internal structure*: **informal “is-a” hierarchy**.
- ② By *subject of the conceptualization*: **Domain-Task ontology**.

Workflow



Future Work

- Apply an **OWL scheme** to describe the ontology.
- Test the **consistency** with datasets of different domains.
- **Optimize** each step (algorithms and tools).
- Study the **parameter** values.
- Build a **gold standard** to validate the ontology.
- Observe the resolution of **ambiguity**.

Thanks!