

Towards an ontology-based approach to support education: from questions to feedback generation

Introduction

- Improving education and alleviating teachers' load
- Question and feedback generation in general:



- One can generate questions and feedback from specific axioms.

Problem

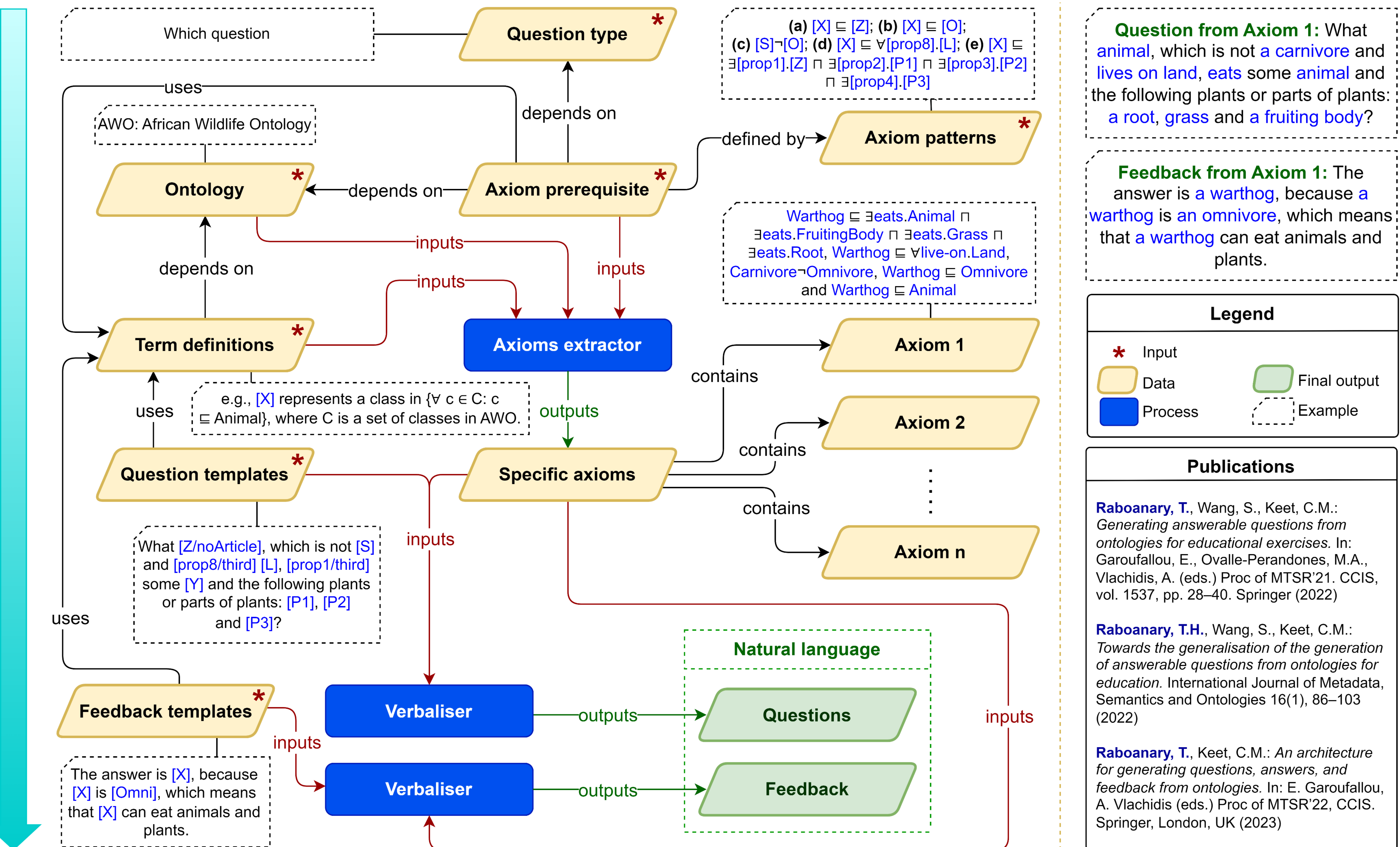
- Existing algorithms do not support multiple ontologies. They depend directly on ontologies having their own structure and question types.

Objectives

- Question and feedback generation depending on axiom prerequisites, term definitions and templates (independent algorithms)
- Having good syntactic, semantic and coverage quality

Results (New results in progress)

- 10 educational question types
- Syntax: 80% of questions very good (3 ontologies)
- Semantics: 73% of questions very good or good (3 ontologies)
- Coverage: 98,45% of the questions are covered (7 ontologies)



Conclusion: One can generate questions with feedback from multiple ontologies by defining axiom prerequisites, terms and templates while having good syntactic, semantic and coverage quality.

