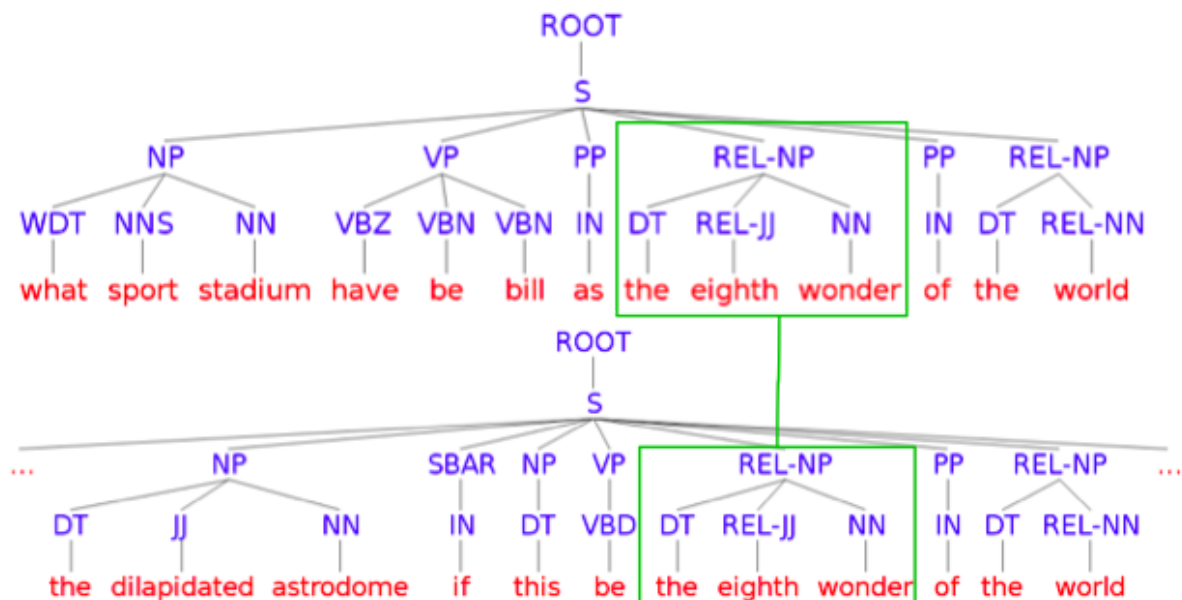**Project Proposal: Enhance question and answer passage structural representation for the Answer passage retrieval task**
Reference person: Kateryna Tymoshenko (k.tymoshenko@gmail.com)

Task: integrate additional knowledge into structural representations of the question and and answers passages into the kernel-based question answering pipeline (https://github.com/mnicosia/minimalpipeline or another similar version)

Example of structures:

Examples of information currently integrated:
- Common lemmas between Q and AP
- Named entities in AP which match the question class
  - E.g. question class is "LOC" (i.e. question is asking a location), then all the named entities of type "Location" are marked in the answer structure with a REL-FOCUS tag
- (for more information: Tymoshenko, Kateryna, and Alessandro Moschitti. "Assessing the Impact of Syntactic and Semantic Structures for Answer Passages Reranking." Proceedings of the 24th ACM International on Conference on Information and Knowledge Management. ACM, 2015.)

Possible ideas:
- Integrate corefence resolution
  - Q: What age did **Elvis die**?
  - AP: **Elvis** passed away at his home. The king is mourned by his family. **He died** when he was only 42.

- - ■ Here the fact that in the AP **"he"** corefers with **"Elvis"** might be a useful hint of answering the question and linking "He" from the AP to the "Elvis" from the question -> "REL died when REL was only NUM"
- Do error analysis on a subset of the development data and propose other modifications based on the results of the analysis