Entity Linking for Earth and Environmental Science [1]

   Submitted by zhengj3 on Sun, 2014-12-21 20:33   **Abstract:**   The Entity Linking (EL) task links entity mentions from an unstructured document to entities in a knowledge base. Although this problem is well-studied in news and social media, this problem has not received much attention in the Earth and environmental science domain. One outcome of tackling the EL problem in the Earth and environmental science domain is to enable scientists to build computational models of environmental related processes with more efficiency. However, simply applying a news-trained entity linker produces inadequate results.

   Since existing supervised approaches require a large amount of manually-labeled training data, which is currently unavailable for the life science domain, we propose a novel unsupervised collective inference approach to link entities from unstructured full texts of Earth and environmental literature to high-quality professionally curated ontologies. The approach leverages the rich semantic information and structures in ontologies for similarity computation and entity ranking.

   For this demo, we will show how our tool can help scientists better process scientific articles in Earth and environmental science domain. The tool also demonstrates the usefulness of mantaining a high quality knowledge base for the domain, therefore will further engage the community members on the knowledge base population.

Collaboration Area: Semantic Web [2]

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