14 - 16 August 2026 Berlin , Germany

Education via Ontology engineering and Wikipedia

Prof. Dr. Susanna Mkrtchyan

Institute for Informatics and Automation Problems of Academy of sciences of Armenia

Abstract

Many Wikimedia organizations engage students on Wikipedia contributions. Besides the Wikipedia development assignment intention, it helps students to learn subjects creatively, attain writing skills on science and more.

Still, writing several articles is not enough to study the subject globally and deeply.

The below project intends to help educators to present the subject more completely, and students to study the subject systematically and creatively, to learn it from top down: from big picture to details.

Study via ontology engineering.

This means that students need to research the subject area, identify significant notions, their relations and procedures: create a knowledge base.

Here are the main steps on this procedure.

Introduction to DBpedia and Ontologies

Divide the research field into subfields and assign students to build ontology for that module (modular ontology) and contribute those into DBpedia of their own language or correct it.

In addition, by building modular ontology, students reveal what articles have to be presented in that area in Wikipedia and choose articles on reviewing and/ or creating.

By this approach we will have a permanently updated DBpedia and more complete Wikipedia on science disciplines.

Students will perceive the subject more completely, will be in touch with AI basics and provide a more complete knowledge base for future AI systems.

Keywords: Wikipedia, DBpedia, Ontology Engineering, Creative Learning, Systematic Approach