Process-oriented ontology building methodology for solving unbalanced competency of the ontology.

ABSTRACT

During two last decades, many ontology building methodologies have been introduced. Since these methodologies are based on the society's lexicon, rather than society's process, the purpose, scope and required entities of the ontology cannot be clearly defined. Therefore, the obtained ontology is either incompetent or over-competent. Hence, this research addresses the problem of the unbalanced competency of the ontology by proposing Process-Oriented Ontology Building methodology (POOB-Methodology). The proposed method defines and express the purpose and scope of the ontology as the ontological concepts. Since the proposed method is process-oriented, and all the societies have a finite number of the processes, the boundary of the ontology can be clearly defined which helps the ontology builder to be concentrated on the main concepts in order to obtain the required entities. Therefore as a result, the obtained ontology is neither incompetent nor over-competent, but enough competent in solving the society's problem. This research contributes by clearly determining the first step of ontology building, providing more coordination between ontology builder and domain experts.