

Abstract (in English):

Conceptual graphs are a formal knowledge representation language introduced by John F. Sowa, an American specialist on Artificial Intelligence, at the end of the seventies. They are the synthesis of heuristic and formalistic approach to Artificial Intelligence and knowledge procession. They provide meaning and knowledge in form, which is logically precise, human-readable and untestable, and it is applicable in the computing domain in general. Conceptual graphs can be expressed through a first-order logic, which makes them a quality tool for intelligent reasoning. Their notation CGIF was standardised by norm ISO/IEC 24707:2007 as one of the three dialects of Common logic, which frames the set of logic based on logic. Conceptual graphs are also mappable to knowledge representation languages standardised for the Semantic Web; OWL and RDF (S). This work introduces the conceptual graph theory in the context of scientific fields like linguistics, logic and artificial intelligence. It represents the formalism proposed by John F. Sowa and some extensions that have emerged over the past decades, along with the need for improvements to the representational properties of graphs. Finally, the work provides an illustrative overview of the implementation and use of conceptual graphs in practice. [Authors' abstract].