Domain-specific Knowledge Graph Construction and Applications

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Biography

Maya Ramanath is an associate professor in the Dept. of Computer Science and Engg. at IIT Delhi. She joined the institute in 2011 after a 5 year stint as a post-doctoral researcher in the Databases and Information Systems group at the Max-Planck Institute for Informatics in Saarbruecken, Germany. Her research interests are Database Systems and Information Retrieval, Semantic Web Data Management, Knowledge graph construction and applications. In 2021, Maya was Workshop chair for CIKM.

Summary

The focus of this talk is on the construction of knowledge-bases for specific « verticals » or domains. While large, general-purpose knowledge-bases have been built and used for applications such as question-answering and search, we do not see the same amount of work on specialised KBs. For some domains (for ex: the Bio-Medical domain) there are already well-curated ontologies and databases which partially address this gap, but the issue of how to integrate them is not completely solved. For other technical domains such as Information Technology, or specific types knowledge such as opinions or events, no such extensive, structured KBs exist. In this talk, I will give a broad overview of our work in the space of domain-specific KB construction and some of the lessons we have learnt. I will further talk about some standard and non-standard applications that make use of the KB as a resource.