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Build Your Own Ontology: A Human-Guided Ontology Learning Approach

Speaker: Prof. Grace Hui Yang
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Abstract

An ontology is a set of concepts and relations between those concepts. Since ancient times, ontologies have been used as a means to organize and access information. Most ontologies are large and complex. They aim to cover a wide range of topics and support a large set of users and tasks. Some situations, however, call for more lightweight ontologies that are user-specific and task-specific. For example, in lawsuits and regulatory reforms, lawyers and government employees must quickly organize large amounts of materials into task-specific concept hierarchies that will later be discarded. This talk examines how to create lightweight and personalized ontologies that allow users to quickly understand the range of the issues raised, and enable "drilling down" into documents that discuss a specific topic.

Biography

Grace Hui Yang is an Assistant Professor at the Department of Computer Science of Georgetown University. Yang received her Ph.D. and Master's degrees in computer science from the School of Computer Science at Carnegie Mellon University, and Master's and Bachelor's degrees in computer science from at the National University of Singapore. Yang's research interests lie at the intersection of information retrieval, text mining, machine learning, and natural language processing, with a recent extension to human-computer interaction. Her current research includes automated and interactive ontology generation, human-guided machine learning, and text analysis and organization. Prior to this, she conducted research on question answering, near-duplicate detection, search engine training and evaluation, multimedia information retrieval, and opinion and sentiment detection.