UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO

Seminar Announcement

DIPARTIMENTO DI INFORMATICA

The Seminars on "Information Technology Outlook" – PhD Program in Computer Science and Mathematics

Fabian M. Suchanek

Full Professor

Institut Polytechnique de Paris, France

Tuesday July 7, 2026

11:00

Aula Goedel

Dept. of Computer Science

On Language Models and Knowledge Bases

Language Models have brought major breakthroughs in natural language processing. Notwithstanding this success, I will show that certain applications still need symbolic representations. I will then show how different methods (language models and others) can be harnessed to build such symbolic representations in the form of knowledge bases. I will highlight several challenges in this endeavor, from finding good embeddings to improving entity linking and dealing with fallacies and textual entailment. I will also discuss how language models can be evaluated along several dimensions. Finally, I will talk about the knowledge bases themselves, most notably our YAGO project. I will present our work on detecting and alleviating incompleteness in knowledge bases, on querying the data, on using the data for the digital humanities, and on reasoning on beliefs.

SHORT BIO: Fabian M. Suchanek is a full professor at the Institut Polytechnique de Paris in France. He obtained his PhD at the Max-Planck Institute for Informatics under the supervision of Gerhard Weikum. In his thesis, Fabian developed inter alia the knowledge base YAGO, one of the largest public general-purpose knowledge bases, which earned him a honorable mention of the SIGMOD dissertation award. Fabian was a postdoc at Microsoft Research in Silicon Valley (reporting to Rakesh Agrawal) and at INRIA Saclay/France (reporting to Serge Abiteboul). He continued as the leader of the Otto Hahn Research Group "Ontologies" at the Max-Planck Institute for Informatics in Germany. In 2013, he became an associate professor, and in 2016 a full professor at Télécom Paris, now part of Institut Polytechnique de Paris.