



Knowledge Graphs

Lecture 6 – Intelligent Applications with Knowledge Graphs and Deep Learning

6.0 Lecture Overview

Prof. Dr. Harald Sack, Mary Ann Tan & Mahsa Vafaie
FIZ Karlsruhe – Leibniz Institute for Information Infrastructure
AIFB – Karlsruhe Institute of Technology
Autumn 2023



FIZ Karlsruhe
Leibniz-Institut für Informationsinfrastruktur

Knowledge Graphs

Lecture 6: Intelligent Applications with Knowledge Graphs and Deep Learning

6.1 The Graph in Knowledge Graphs

Excursion 8: Distributional Semantics and Language Models

6.2 Knowledge Graph Embeddings

6.3 Knowledge Graph Completion

6.4 Knowledge Graphs and Language Models

6.5 Semantic Search

6.6 Exploratory Search and Recommender Systems

Knowledge Graphs

Lecture 6: Intelligent Applications with Knowledge Graphs and Deep Learning

Additional Hands-On:

6.1 Network Analysis

6.2 Introduction to Knowledge Graph Completion using TransE

Next Lecture...

The Graph in Knowledge Graphs

Picture References:

- [1] LOD Cloud, 2014-08-30, [cc-by-4.0], <https://lod-cloud.net/versions/2014-08-30/lod-cloud.png>
- [2] “On this colorized Renaissance woodcut we see two sailing ships driven towards the edge of flat Earth. Underneath the waves there lures a fierce dragon. The ocean's waters are pouring down from the edge of flat Earth..”, created via ArtBot, Deliberate, 2023, [CC-BY-4.0], <https://tinybots.net/artbot>

