A step towards Semantic Matching Graph Embeddings-based Relational Schema Matching

Christos Koutras, Marios Fragkoulis, Asterios Katsifodimos, Christoph Lofi {c.koutras, m.fragkoulis, a.katsifodimos, c.lofi}@tudelft.nl

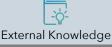


Schema Matching

Discovering potential correspondences between attributes of different relations with various schemata.

Pitfalls of existing methods







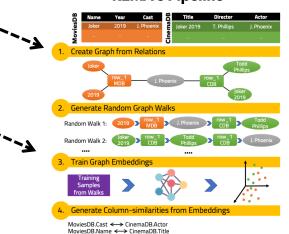
Relational Embeddings MAtcher (REMA)

An automated domain-agnostic schema matching approach, relying only on the information conveyed from the input datasets, without the need of external knowledge.

REMA's Pipeline

Relational data from several tables are transformed to a **non-directed graph**.

Node embeddings are trained, so that relevant nodes have similar vector representations.



The graph is processed to create a set of random-walks, which will serve as training data.

We use **embeddings** to calculate **similarity** between **columns** of different relations.

Work In Progress







