High Quality Knowledge Graphs from recent English, French and German Emergent Trends with the example of COVID-19

PhD thesis

The diNo (Data Intensive and Knowledge Oriented Systems) group of Université de Paris is looking for strong candidates for a 3-year funded Phd position on data management/data quality/knowledge graphs.

Position description
The position is funded by the Agence Nationale de la Recherche (ANR). The is part of a joint research project with the University of Lübeck (with a focus on creation of knowledge graphs) and Université Paul Sabatier (in Toulouse with a focus on natural language processing). The Phd at Université de Paris will mainly deal with the quality evaluation of knowledge graphs.

Our project is concerned with generating high quality knowledge graphs for emerging English, French and German trends. The aim is to get a general overview of the trends, how facts develop across time and languages, and to carry out a high-quality assessment of these facts in enriched knowledge graphs to support further analyzes with meaningful visualizations.

Main activities:
- Identify and model quality metrics for evaluating the quality of knowledge graphs.
- Quality-aware query that ties the knowledge graph quality, and the query answers quality from the analysis/visualization tool.
- Propose efficient incremental methods to optimize the quality evaluation process from the KG creation to the data analysis and visualization.

Candidate requirements
- Very good degree (master's degree or comparable) in computer science.
- Good knowledge of English.
- Advanced experience with data management; experience in software development
- Knowledge of the semantic web / knowledge graphs, data analysis and visualizations are an advantage.

How to apply?
Interested candidates should email Soror Sahri <soror.sahri@parisdescartes.fr> by November 30th 2021, a pdf file with their detailed CV (including previous achievements, research interests and career goals) with 2-3 names for references (or recommendation letters). Applications will be considered immediately, and until the position is filled.
Supervision: Soror Sahri and Salima Benbernou

diNo represents a vibrant and international researcher environment, it has world expertise in the area of sequence data management and analytics, has several ongoing collaborations with top national and international academic and industrial partners, and it regularly hosts invited seminars from prominent researchers in the field. It is located in the center of Paris, in the bustling Saint-Germain-des-Pres area, and a short 5 minutes walk across the river Seine from Louvre.

<http://dino.mi.parisdescartes.fr/>

The computer science department, **Laboratory of Informatics Paris Descartes** (LIPADE), is carrying out theoretical and applied research. LIPADE has more than 60 members with 30 of them being academic staff and conducting research in the areas of intelligent agents and multi-agent systems, machine learning, computer vision and image processing, networks, and databases. Those researchers have participated in more than 25 European and National projects during the last 5 years.

<http://lipade.math-info.univ-paris5.fr/>