

Preface for the Third International Workshop on Knowledge Graph Generation from Text

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TEXT2KG is the third Workshop on Knowledge Graph Generation From Text co-located with ESWC-2024. The primary aim of this workshop is to bring together researchers from multiple focus areas such as Natural Language Processing (NLP), Entity Linking (EL), Relation Extraction (RE), Knowledge Representation and Reasoning (KRR), Deep Learning (DL), Knowledge Base Construction (KBC), Semantic Web, Linked Data, and other related fields to foster a discussion and enhance the state-of-the-art in knowledge graph generation from the text. The workshop had an exciting invited keynote, Paul Groth, Professor, University of Amsterdam, Netherland. The organizing team is thankful to everyone involved in making the TEXT2KG workshop 2024 a success. First, our thanks go to all the organizers of the main events and Program Committee members for ensuring a rigorous review process that led to an excellent scientific program and an average of three reviews per article. TEXT2KG team is also thankful to keynote speaker (Paul Groth) and all steering committee (Amit Sheth, Sören Auer, Alfio Gliozzo, Enrico Motta, Anna Fensel, Maria Esther Vidal, Edlira Vakaj, Fernando Ortiz-Rodriguez, Sven Groppe), and Publicity Chair (Joey Yip and Ronak Panchal) for their valuable contributions.

TEXT2KG 2024 workshop has received 17 papers and accepted 13 papers after a rigorous reviewing process. All accepted papers were long papers. Each paper was reviewed by three reviewers with different backgrounds. The following papers were accepted for publication and presented at the workshop:


- Fine-Tuning vs. Prompting: Evaluating the Knowledge Graph Construction with LLMs
- Employing RAG to Create a Conference Knowledge Graph from Text
- KGValidator: A Framework for Automatic Validation of Knowledge Graph Construction
- Generating E-commerce Related Knowledge Graph from Text: Open Challenges and Early Results using LLMs

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 CEUR Workshop Proceedings (CEUR-WS.org)

- Knowledge Graphs for Digital Transformation Monitoring in Social Media
- Open Knowledge Base Canonicalization: Techniques and Challenges
- Towards Dataset for Extracting Relations in the Climate-Change Domain
- Leveraging Language Models for Generating Ontologies of Research Topics
- On Constructing Biomedical Text-to-Graph Systems with Large Language Models
- Towards LLM-driven Natural Language Generation based on SPARQL Queries and RDF Knowledge Graphs
- Incorporating Type Information Into Zero-Shot Relation Extraction
- Towards Harnessing Large Language Models as Autonomous Agents for Semantic Triple Extraction from Unstructured Text
- Battalogy: Empowering Battery Data Management through Ontology-driven Knowledge Graph

Keynote Paul Groth

Talk Title "To Graph or not to Graph: Knowledge Graph architectures and LLMs"

Abstract

The increasing capabilities of Large Language Models (LLMs) allows us to rethink how we architect systems for and based on knowledge graphs. LLMs can be used as encoders for unstructured information such as images and text, which allows to take advantage of the attributes of entities in a Knowledge Graph. Furthermore, LLMs provide increasingly robust information extractors allowing information to be extracted on-the-fly. Likewise, they can be used as flexible components of common data wrangling tasks such as entity resolution. Finally, LLMs contain knowledge in their parameters providing a new source of knowledge. Together these suggest the ability to create new architectures that can take advantage of the different characteristics of information sources.

Best Paper Award

- We have taken the opinion of all organizers and steering and advisory committee to decide the best paper award and it was finally awarded to:
 - **Fine-Tuning vs. Prompting: Evaluating the Knowledge Graph Construction with LLMs.** *Hussam Ghanem and Christophe Cruz*

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