Guest editorial: Special issue on "current topics of knowledge graphs and semantic web"

Introduction

Knowledge Graphs are considered as a set of data points associated with relations to describe the domains such as an organization, business or academics. They have a potential role to bridge the semantic gap between unstructured and structured information and fostered new research directions, tasks with new possibilities to represent, query, visualize, interact and make more understandable information. Knowledge Graphs are powerful to representing data in search and recommendation systems that explored new insights about the domain. Recently, Knowledge Graphs gain popularity with deep learning and graph embedding. This special issue has been organized to invite the extended version of KGSWC-2021 conference accepted papers. The primary aim of this issue:

- to provide a forum for the Semantic Web community, bringing together researchers and practitioners in industry to share ideas about R and D projects; and
- to increase the adoption of the Semantic Web technologies within the region.

Indicative list of anticipated themes

- Deep Learning on Knowledge Graphs.
- Graph-based Data Science.
- Text Mining and Natural Language Processing.
- Combining Semantic Graphs with Property Graphs.
- Probabilistic Knowledge Graphs.
- Vocabularies, Schemas and Ontologies.
- Web Analytics.
- Knowledge Mining and Fusion.
- Security and Data Privacy with Semantic Technologies.
- Knowledge Graphs and Deep Semantics.
- Semantic Linking and Search.
- Machine Learning in Semantic Computing.
- Linked Data.
- Reasoning.
- Social Web and Web Science.
- Mobile Web, Sensors and Semantic Streams.
- Services, APIs, Processes and Cloud Computing.
- Benchmarking and Empirical Evaluation.

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Review process

This special issue invited only selected papers of KGSWC-2021 conference to extend. We have followed the journal guidelines to accomplish the review process and finally accepted 12 papers.

Accepted papers

The selected papers are on many different topics, such as process mining application on patient waiting time (Dogan, 2022); maintenance of RDB2RDF in enterprise knowledge graphs (Vidal *et al.*, 2022); deep neural network-based approach for fake news detection (Katariya *et al.*, 2022); ranking community detection algorithms for complex social networks (Rani and Kumar, 2022); agglomerative clustering enhanced GA for optimal seed selection (Mehta, 2022); CNN-BERT for measuring agreement (Harly and Girsang, 2022); hotel room personalization via ontology and rule-based reasoning (Ojino *et al.*, 2022); fake news detection on Twitter [1]; semiautomated process for generating knowledge graphs (Keshan *et al.*, 2022); From ontology to knowledge graph with agile methods (DeBellis and Dutta, 2022); keyword-based faceted search interface for Knowledge Graph construction and exploration (Sellami and Zarour, 2022); and finally, applied personal profile ontology for personnel appraisals (Usip *et al.*, 2022).

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Note

1. Fake news detection on Twitter.

References

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Dogan, O. (2022), "Process mining based on patient waiting time: an application in health processes", *International Journal of Web Information Systems*.

Harly, W. and Girsang, A.S. (2022), "CNN-BERT for measuring agreement between argument in online discussion", *International Journal of Web Information Systems*.

Katariya, P., Gupta, V., Arora, R., Kumar, A., Dhingra, S., Xin, Q. and Hemanth, J. (2022), "A deep neural network-based approach for fake news detection in regional language", *International Journal of Web Information Systems*.

Keshan, N., Fontaine, K. and Hendler, J.A. (2022), "Semi automated process for generating knowledge graphs for marginalized community doctoral-recipients", *International Journal of Web Information Systems*.

Mehta, S. (2022), "Agglomerative clustering enhanced GA for optimal seed selection in online social networks", *International Journal of Web Information Systems*.

Ojino, R., Mich, L. and Mvungi, N. (2022), "Hotel room personalization via ontology and rule-based reasoning", *International Journal of Web Information Systems*.

Rani, S. and Kumar, M. (2022), "Ranking community detection algorithms for complex social networks using multilayer network design approach", *International Journal of Web Information Systems*.

Sellami, S. and Zarour, N.E. (2022), "Keyword-based faceted search interface for knowledge graph construction and exploration", *International Journal of Web Information Systems*.

Usip, P.U., Udo, E.N. and Umoeka, I.J. (2022), "Applied personal profile ontology for personnel appraisals", *International Journal of Web Information Systems*.

Vidal, V., Pequeno, V.M., Júnior, N.M.A. and Casanova, M.A. (2022), "Publication and maintenance of RDB2RDF views externally materialized in enterprise knowledge graphs", *International Journal of Web Information Systems*.