

The application of Semantic Publishing technologies in the Science of Science research domain for the Humanities field

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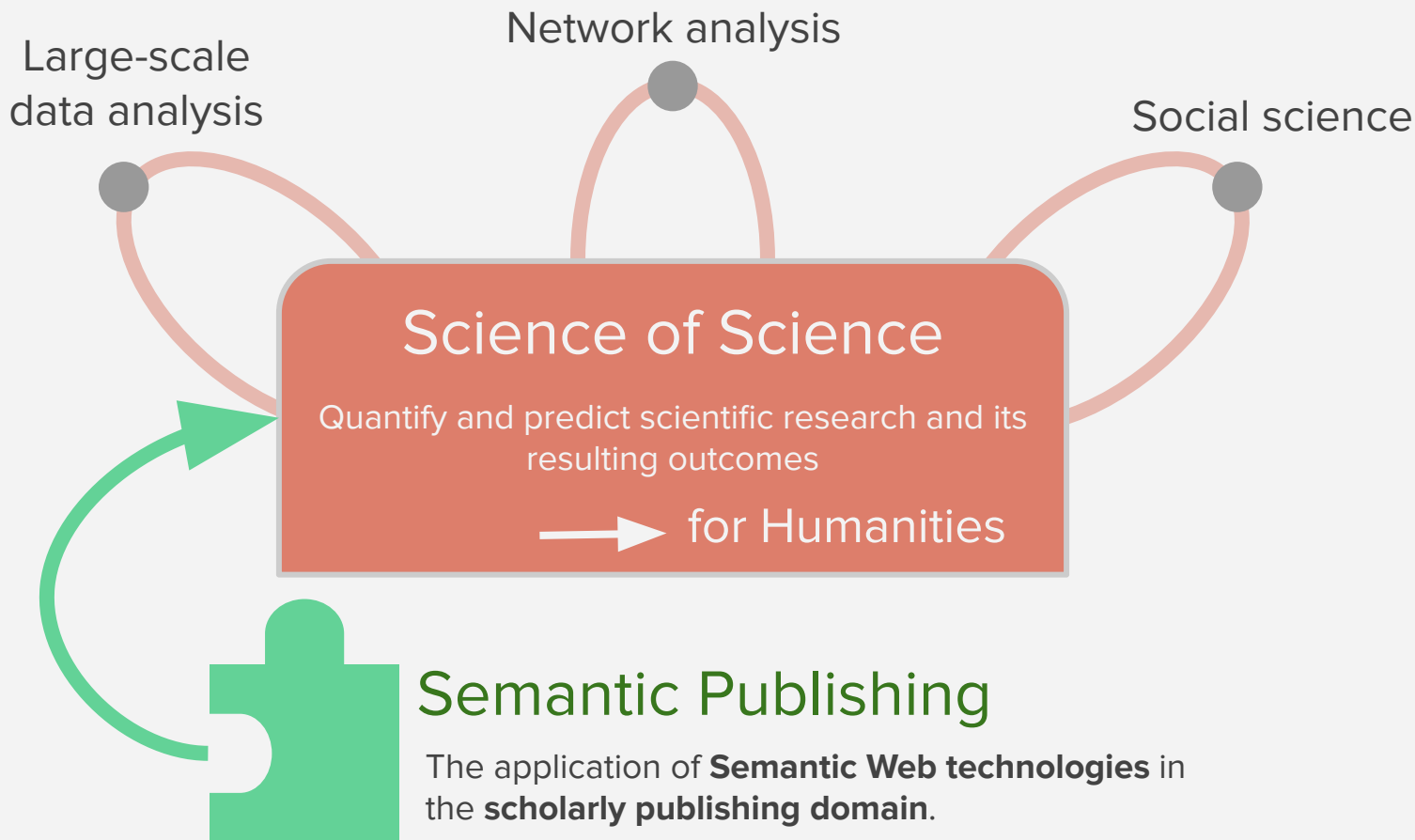
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About me



Background



Background: Semantic Web technologies essentials

- What is it ?

An extension of the World Wide Web -> **the web of data** that can be processed by machines

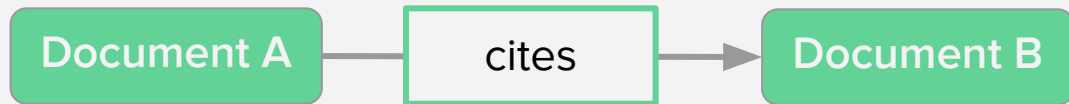
- How is that possible ?

Resources on the web are described using the **RDF data model: a Triple (subject, predicate, object), as a graph.**

General definition



Semantic publishing



Notable examples: [OpenCitations](#), [Wikidata/WikiCite](#), [Springer Nature SciGraph](#), e [Microsoft Academic Knowledge Graph](#)

Purpose

Analysis strategy: *Citations in Humanities*

- What are the **common formalisms and constructional patterns** adopted for citations inside Humanities documents (e.g. a classification according to the document sections) ?
- What are **the reasons, i.e. the citation function**¹, to cite other works and what are the most important ones ?

[1] Teufel, S., Siddharthan, A., & Tidhar, D. (2006). An annotation scheme for citation function.

The Research

- **Resources**

Focus on journal **article-oriented study fields**. Books seems to be the most cited doc-type by humanities fields, yet less available. **Literature and History** are two highly reasonable study fields to take in consideration.

- **Limitations**

The **lower proportion of journal articles cited by humanities** compared to the scientific oriented domains case; The **local relevance**; The presence of a **division between publications directed toward researchers and writings directed to a public audience** ... etc

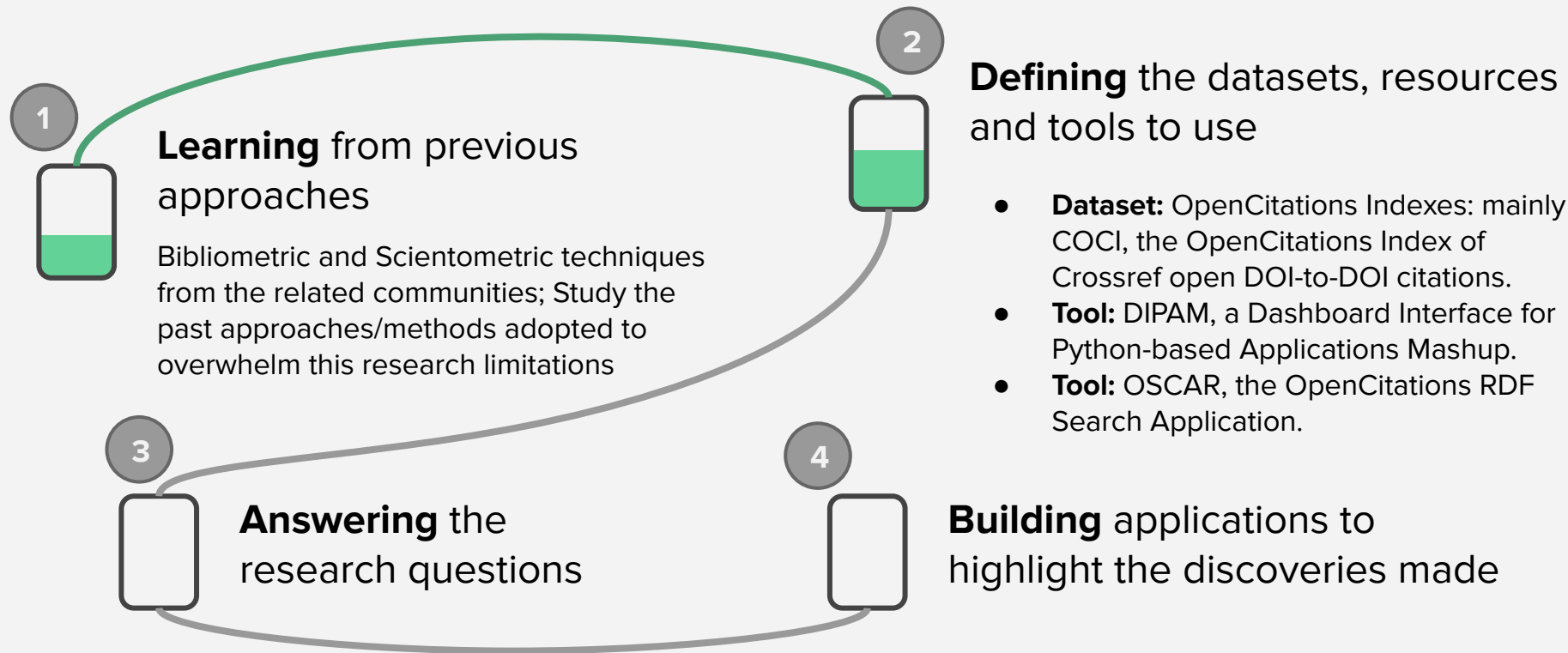
- **Methodologies**

The Semantic Publishing methods, E.g. using the CiTO (the Citation Typing Ontology) to semantically represent bibliographic citations, or the DataCite Ontology for resources identification ... etc

- **Desirable outcomes**

Broaden the knowledge over citations and their usage will lead future **researchers improve their works and effectively address their research questions**; **Developing new applications that assist the community** into a functional usage of the discoveries made.

Project workflow



Ivan Heibi, Silvio Peroni, Paolo Ferri, & Luca Pareschi. (2019, June 27). catarsi/mitao: MITAO first release (Version v1.1-beta). Zenodo. <http://doi.org/10.5281/zenodo.3258328>

Heibi, I., Peroni, S., & Shotton, D. Enabling text search on SPARQL endpoints through OSCAR. Data Science, (Preprint), 1-23. DOI: <https://doi.org/10.3233/DS-190016>

Heibi I, Peroni S, Shotton D (2019). COCI, the OpenCitations Index of Crossref open DOI-to-DOI citations. [arXiv:1904.06052](https://arxiv.org/abs/1904.06052)

Thank you for your attention

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