



Popolare il World Literature KG con SPARQL-Anything

Let's SPARQL-Anything (a recap)

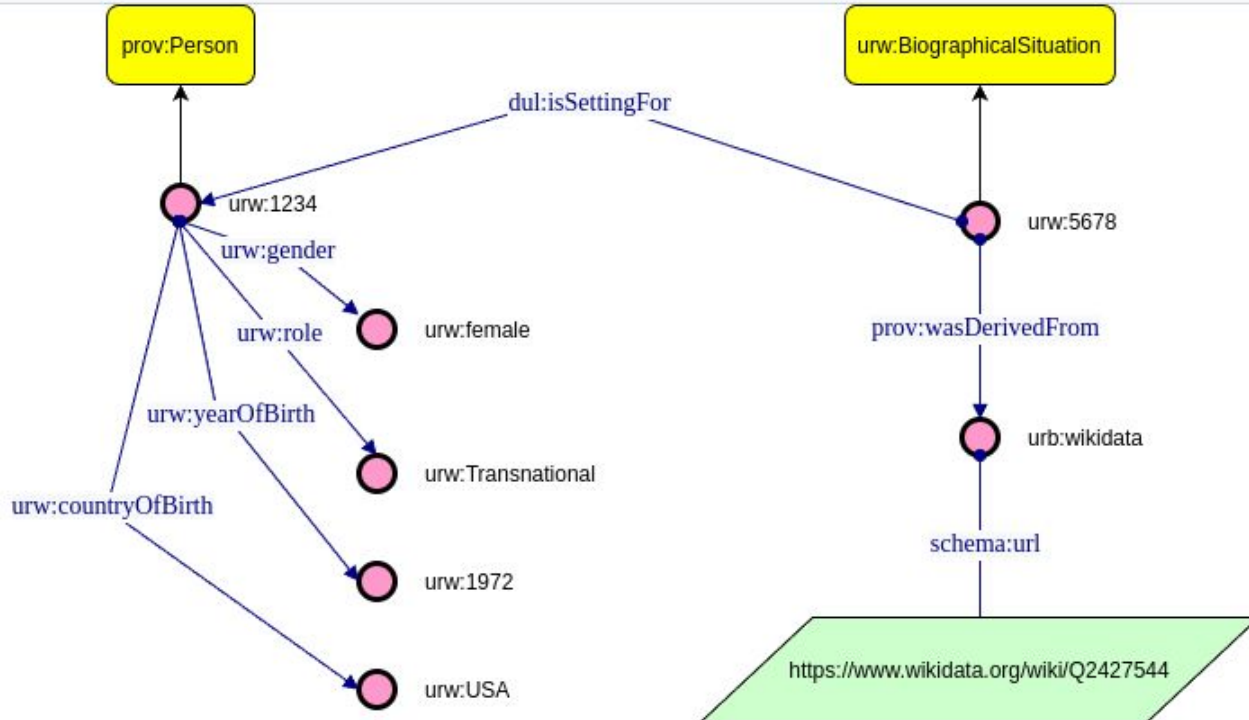
1. A dataset

<div>PreviewCodeBlame2 lines (2 loc) · 151 Bytes Code 55% faster with GitHub Copilot</div>									
<div> Search this file</div>									
1	id	name	gender	yob	cob	role	situation	source	url
2	1234	N. K. Jemisin	female	1972	USA	Transnational	5678	wikidata	https://www.wikidata.org/wiki/Q2427544

2. A target KG output

```
2
3   urw:1234 a prov:Person;
4       rdfs:label 'Nora Keita Jemisin';
5       urw:gender urw:female;
6       dul:hasRole urw:Transnational;
7       urw:yearOfBirth urw:1972;
8       urw:countryOfBirth urw:USA .
9
10  urw:5678 a urw:BiographicalSituation ;
11      dul:isSettingFor urw:USA , urw:1972 , urw:Transnational , urw:female , urw:artist1234 ;
12      prov:wasDerivedFrom urb:wikidata
13
14  urb:wikidata schema:url "https://www.wikidata.org/wiki/Q2427544" .
15
```

2. A target KG output



3. A query to convert the dataset in the KG

```
PREFIX schema: <http://schema.org/>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX dul: <http://www.ontologydesignpatterns.org/ont/dul/DUL.owl#>
PREFIX xml: <http://www.w3.org/XML/1998/namespace>
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
PREFIX prov: <http://www.w3.org/ns/prov#>

CONSTRUCT {
  ?writer a prov:Person;
    rdfs:label ?name;
    urw:gender ?wgender;
    dul:hasRole ?wrole;
    urw:yearOfBirth ?wyob;
    urw:countryOfBirth ?wcob .

  ?sit a urw:BiographicalSituation;
    dul:isSettingFor ?writer , ?wgender , ?wrole , ?wyob , ?wcob ;
    prov:wasDerivedFrom ?source .
  ?source schema:url ?url .
} WHERE {
  # Artists from the Tate Gallery open data!
  SERVICE <x-sparql anything:csv.headers=true,location=./data/author_data.csv> {
    [] xyz:id ?id;
      xyz:name ?name;
      xyz:gender ?gender;
      xyz:role ?role;
      xyz:yob ?yob;
      xyz:cob ?cob ;
      xyz:situation ?situation;
      xyz:url ?url ;
      xyz:source ?src .

  }
  BIND (IRI(CONCAT(STR(urw:),"artist", ?id )) AS ?writer) .
  BIND (IRI(CONCAT(STR(urw:), ?gender )) AS ?wgender) .
  BIND (IRI(CONCAT(STR(urw:), ?role )) AS ?wrole) .
  BIND (IRI(CONCAT(STR(urw:), ?yob )) AS ?wyob) .
  BIND (IRI(CONCAT(STR(urw:), ?cob )) AS ?wcob) .
  BIND (IRI(CONCAT(STR(urw:), ?situation )) AS ?sit) .
  BIND (IRI(CONCAT(STR(urw:), ?src )) AS ?source) .
}
```

3.1. The output format

```
CONSTRUCT {  
  ?writer a prov:Person;  
    rdfs:label ?name;  
    urw:gender ?wgender;  
    dul:hasRole ?wrole;  
    urw:yearOfBirth ?wyob;  
    urw:countryOfBirth ?wcob .  
  ?sit a urw:BiographicalSituation;  
    dul:isSettingFor ?writer , ?wgender , ?wrole , ?wyob , ?wcob ;  
    prov:wasDerivedFrom ?source .  
  ?source schema:url ?url .  
}
```

3.2. The triplification of your dataset

```
} WHERE {  
  # Artists from the Tate Gallery open data!  
  SERVICE <x-sparql-anything:csv.headers=true,location=./data/author_data.csv> {  
    [] xyz:id ?id;  
        xyz:name ?name;  
        xyz:gender ?gender;  
        xyz:role ?role;  
        xyz:yob ?yob;  
        xyz:cob ?cob ;  
        xyz:situation ?situation;  
        xyz:url ?url ;  
        xyz:source ?src .  
  }  
}
```


3.3. Variable alignment and iri assignment

```
    BIND (IRI(CONCAT(STR(urw:),"artist", ?id )) AS ?writer) .  
    BIND (IRI(CONCAT(STR(urw:), ?gender )) AS ?wgender) .  
    BIND (IRI(CONCAT(STR(urw:), ?role )) AS ?wrole) .  
    BIND (IRI(CONCAT(STR(urw:), ?yob )) AS ?wyob) .  
    BIND (IRI(CONCAT(STR(urw:), ?cob )) AS ?wcob) .  
    BIND (IRI(CONCAT(STR(urw:), ?situation )) AS ?sit) .  
    BIND (IRI(CONCAT(STR(urb:), ?src )) AS ?source) .  
}
```

Your assignment

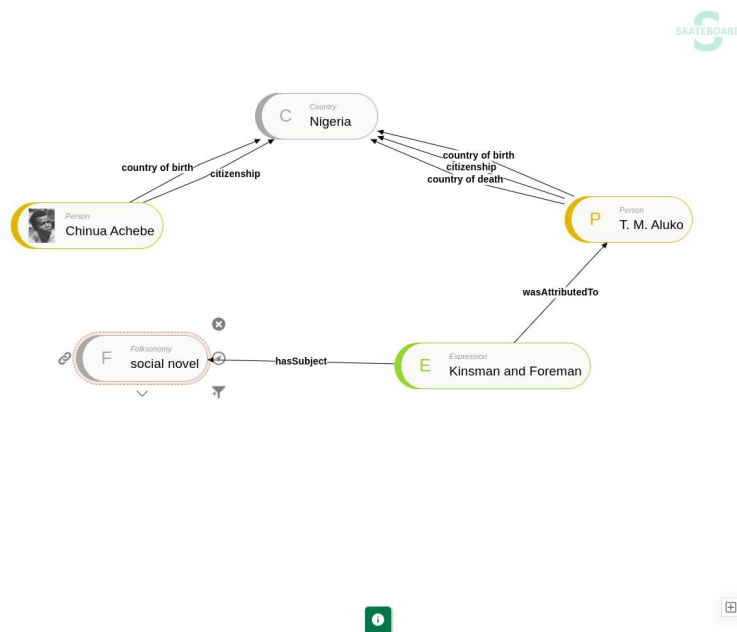
The World Literature Knowledge Graph

A resource for the exploration of underrepresented writers

achebe

DBpedia Goodreads Old Wiki See all

- Chinua Achebe
- Achebe, Chinua
- Achebe (surname)
- Chinua Achebe
- Albert Chinualumogu Achebe
- Chunua Achebe
- Books by Chinua Achebe
- Works by Chinua Achebe
- Short stories by Chinua Achebe
- Novels by Chinua Achebe
- Achebe (character)
- Albert Achebe
- Chinedu Achebe
- Chidi Chike Achebe
- Chidi chike achebe
- Achebe, Chinedu
- Nwando Achebe
- Alfred Achebe
- Nancy Achebe
- Nancy achebe
- Ivory Achebe Toldson
- Nnaemeka Alfred Ugochukwu Achebe
- Achebe family
- Chinua Achebe Literary Festival
- Achebe (comics)
- Achebe
- Michael Ibn al-hajj Achebe
- Chinua Achebe
- Chinua Achebe
- Conversations with Chinua



Welcome the World Literature Knowledge Graph, a collection of 194,269 writers and their works gathered from Wikidata, Goodreads, Google Books and Open Library

To start using this resource, you can search for an **author**, a **work** or a **place** in the left box.

Word Literature Knowledge Graph is also able to highlight the authors' belonging to a **minority**.

Once you find the entity you are looking for, drag and drop it in the central part of the page.

If you double-click on the entity, an info-box will appear on the right, with biographical and/or publishing information.

The Under-Represented Writers Ontology

Modelled on a semantic model for the alignment of different platforms

The screenshot displays the Protégé web interface for the 'urwriters' ontology. The browser address bar shows the URL 'urwriters (https://purl.archive.org/domain/urwriters) : /home/marco/Documenti/unito/onto/urwriters'. The interface includes a menu bar (File, Edit, View, Reasoner, Tools, Defactor, Window, Ontop, Help) and a toolbar. The 'Active ontology' tab is selected, showing the 'Entities' view. The 'Ontology header' section displays the 'Ontology IRI' as 'https://purl.archive.org/domain/urwriters' and the 'Ontology Version IRI' as 'https://purl.archive.org/domain/urwriters/1.0.0'. The 'Annotations' section lists several properties: 'dcterms:license' (CC0 1.0), 'dcterms:abstract' (language: en), 'dcterms:bibliographicCitation' (Marco Antonio Stranisci, Viviana Patti, and Rossana Damiano. Representing the Under-Represented: a Dataset of Post-Colonial, and Migrant Writers. In 3rd Conference on Language, Data and Knowledge (LDK 2021). Open Access Series in Informatics (OASICS), Volume 93, pp. 713-714, Schloss Dagstuhl - Leibniz-Zentrum für Informatik (2021)), 'dcterms:contributor' (Rossana Damiano), and 'dcterms:creator' (Marco Antonio Stranisci). The 'Ontology imports' section shows 'Imported ontologies' and 'Direct imports', including 'https://purl.archive.org/domain/urbooks' (98 axioms, 40 logical axioms) with its IRI and location.

The objective

Allow people to suggest writers and works that are not included in the World Literature Knowledge Graph

Your assignment

1. Choose a piece of knowledge to be encoded
2. Check it against the ontology and, if necessary, modify it
3. Create a Google form for gathering information from users
4. Process the output file of the G form to convert it in the KG
5. Write the PySPARQL-Anything query
6. Document everything in the github folder

Bonus track

Implement a scraper that extracts information from different archives and populates the KG

Timeline

Today: form groups, choose the assignment, and design your activity

Friday (11:00-11:30): we solve eventual issues and clarify doubts

Activity repository: <https://github.com/world-literature-kq/sa2wl-kq>

Ontologies repository: <https://github.com/world-literature-kq/ontologies>