Digital Storytelling through the WeChangEd Stories App

Multimedia Biographies Powered by Linked Open Data

Kat Thornton and Kenneth Seals-Nutt 29 June, 2020

Our Collaboration

- We began collaborating on a Wikidata-powered app for Yale University Library in 2017
- Created our multimedia front-end application Sciencestories.io in 2018
- Partnering with WeChangEd since July, 2019 making our front end framework available for other projects to reuse

Linked Open Data

- A strategy for data structuring that makes use of Resource Description Framework (RDF) and allows your data to be combined with other data already on the web.
- Further reading: Linked data for libraries, archives and museums: how to clean, link and publish your metadata



This knowledge base of structured data is:

- Machine-readable linked open data
- Editable by anyone with Internet access
- Designed to support both human and algorithmic curation
- Fully-versioned wiki

Items, properties, unique identifiers

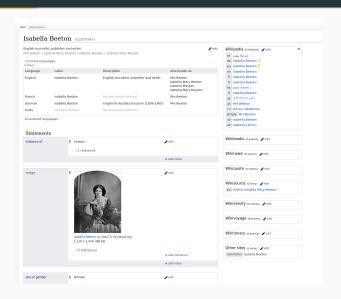


Figure 1: Isabella Beeton in Wikidata

Getting Data into Wikidata

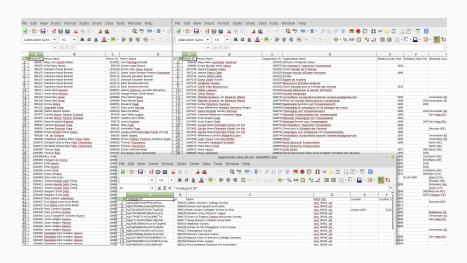


Figure 2: Many researchers currently have text-based data

WikidataIntegrator

- Developed by the GeneWiki team from the Su Lab at Scripps Research Institute
- Python package that supports interacting with Wikidata via the API and SPARQL
- Available here

Exploring Isabella Beeton's item in Wikidata

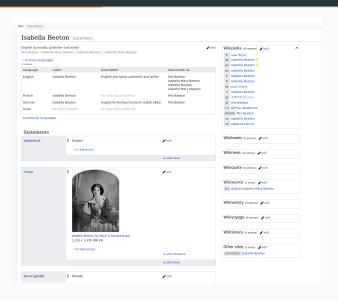


Figure 3: Isabella Beeton in Wikidata

How Can We Use Wikidata?

- Additional pathways into our projects
- Crosswalk between authorities
- Public SPARQL endpoint for queries

Archives containing materials related to WeChangEd people

- After aligning data with Wikidata we may find more research opportunities
- What archives hold material related to these people?
- Wikidata has records of 86 different archival holdings related to WeChangEd
- Try this query!

Aligning a Dataset with Wikidata Helps Us Find More Data

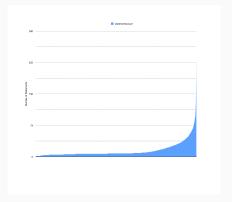


Figure 4: Count of statements per item

- On average we created 7 statements per item
- After alignment, they have dozens or hundreds of statements
- Try this query!

Pathways back to library and archival collections



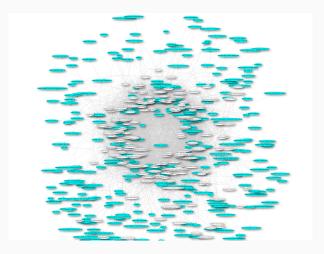
Figure 5: Sourcing claims to print reference materials

External Identifiers as Pathways to Related Data

- The WeChangEd data set had entries for VIAF and ISNI identifiers
- Further reading: Wikidata as a linking hub for knowledge organization systems? Integrating an authority mapping into Wikidata and learning lessons for KOS mappings

WeChangEd External Identifiers Web

 After aligning with Wikidata this is the graph of current identifiers for WeChangEd editors



Creating a Front-end App with Stories Services

- Reuse data from multiple items
- Present specific views of Wikidata data
- Include your multimedia resources
- Customize the UI for use cases
- Encourage users to explore your data

Audio Visual Materials

- Combine data from Wikidata with materials from institutional collections or your files
- Present Wikimedia Commons material as IIIF

International Image Interoperability Framework

- Open API specifications
- Enables interoperability of digital assets across institutions
- Widely-adopted by cultural heritage institutions



Stories Services for data-powered storytelling

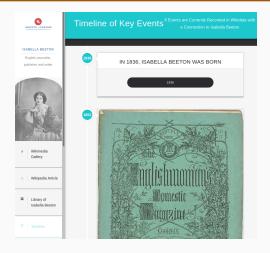


Figure 6: Screenshot from Isabella Beeton's story

Demo of Publisher Workspace

The Case for Linked Data in Research Projects

- **Discover** data related to your research topics
- Connect topics to reference sources
- Leverage existing tools for exploring and visualizing your data
- Tell stories with your data to engage with a broad audience on the web

Beta User Info

- If you are interested in trying out Stories Services for your own project, consider signing up to be a beta user:
- https://stories.k2.services

Thank you!