THE UNIVERSITY OF OXFORD

DIGITAL HUMANITIES

AT OXFORD SUMMER SCHOOL

Kindly supported by…

Wikipedia's sister projects as platforms for the digital humanities

Twitter: @mlpoulter
Email: martin.poulter@Bodleian.ox.ac.uk

This session

1. Overview of Wikimedia and Wikidata
2. Knowledge representation in Wikidata
3. Sharing and using surface metadata
4. Sharing and using richer data
5. Converting a book into open data

Wikimedia overview

- Freely reusable by anyone, for any purpose
- Hosted by a charity
- Anyone can edit
- No original research
- Machine-readable

“Imagine a world in which every single human being can freely share in the sum of all knowledge. That's our commitment.”

Articles

Media

Source text

Secondary data

Lord Byron

From Wikipedia, the free encyclopedia

"Often described as the most flamboyant and notorious of the major Romantics, Byron was celebrated in life for aristocratic excesses...,"

WIKIPEDIA
The Free Encyclopedia

WIKIMEDIA COMMONS

Longer poetic works [edit]

- *English Bards, and Scotch Reviewers*, a satire (1809) (transcr
- *Hints from Horace* (1811) (transcription project)
- *The Curse of Minerva* (1811)
- *The Waltz*, an apostrophic hymn (1813)
- *The Giaour* (1813)
- *The Bride of Abydos*, a Turkish tale (1813) (transcription project
- *The Corsair*, a tale (1814)
- *Ode to Napoleon Buonaparte* (1814)
- *Lara*, a tale (1814)
- *The Siege of Corinth* (1816)
- *Parisina* (1816)
- *The Prisoner of Chillon* (1816)
- *Monody on the Death of the Right Hon. R. B. Sheridan* (1816
- *Manfred*, a dramatic poem (1817)
- *The Lament of Tasso* (1817)
- *Beppo*, a Venetian story (1818)

WIKISOURCE

WIKIDATA

Child: Ada Lovelace
Member of: Royal Society
LCCN ID: n81026857
...
...

1892

commons:Mimmi Zetterström - Self-portrait.jpg
Mimmi Zetterström
Selfportrait
1876

Sarah Miriam Peale
Self-portrait
commons:Self portrait sarah miriam peale.jpg
1818

commons:Selfportrait (Bertha Wegmann) - Nationalmuseum - 19884.tif
Bertha Wegmann
Selfportrait
2000

Angelica Kauffman
Self-Portrait in the Traditonal Costume of the Bregenz Forest, Seated at her Easel
commons:Angelica Kauffman - Self-Portrait in the Traditonal Costume of the Bregenz Forest, Seated at her Easel.jpg
1757

Fanny Inama von Sternegg
Self-portrait
commons:Fanny Inama von Sternegg 2.jpg
1901

Gusta Nekolová
Self-portrait
commons:Gusta Nekolová - Self-Portrait.jpg
1914

Q23039040
commons:Maria Theresa of Austria family.jpg
1760

Maria Christina, Duchess of Teschen
Self-portrait
commons:Marie Christine of Austria1.jpg
1765

WIKIDATA

Biographical

Bibliographic

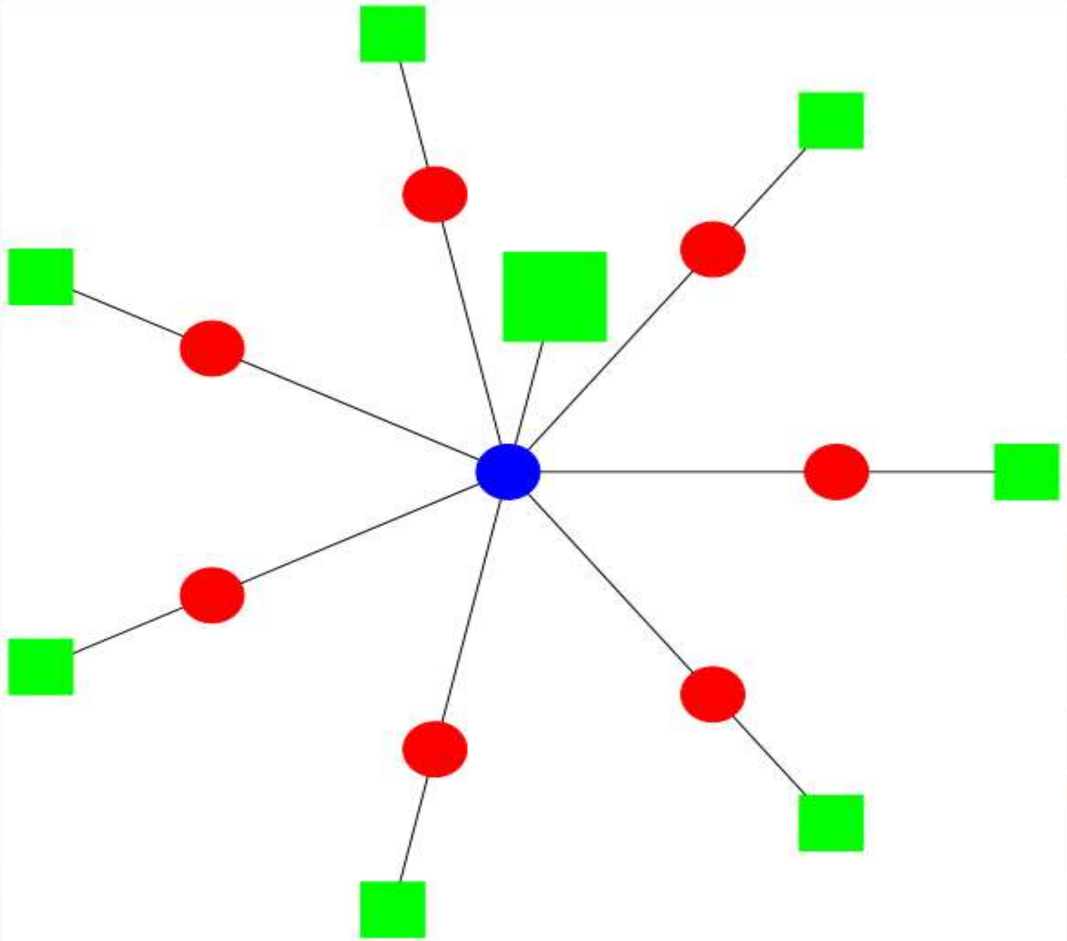
Geographical

Taxonomic

Cultural heritage

Authority file

etc.



Wikidata logo © the Wikimedia Foundation

Wikidata phase 1 interwiki links by Pyfisch on Wikimedia Commons, CC-By-SA

Wikimedia projects

Current language Wikipedias

en	Astrolabe

Big Wikipedias

az	Astrolyabiya
cs	Astroláb
da	Astrolabium
de	Astrolabium
es	Astrolabio
et	Astrolaab
fi	Astrolabi
fr	Astrolabe
hu	Asztrolábium
it	Astrolabio
ja	アストロラーベ
nl	Astrolabium
pl	Astrolabium
pt	Astrolábio
ru	Астролябия
sk	Astroláb
sv	Astrolabium
tr	Usturlap
zh	星盘

Wikimedia Commons

commons	Category:Astrolabes

Wikisource

de	Astrolabium

Other Wikipedias

af	Astrolabium
ar	اسطرلاب
ast	Astrolabiu
bg	Астролабия
bs	Astrolab
ca	Astrolabi
ckb	ئیستر لاب
el	Αστρολάβος
eo	Astrolabo
eu	Astrolabio
fa	اسطرلاب
ga	Astraláib
gl	Astrolabio
he	אצטרולב
hi	तारेक्ष
hr	Astrolab
hy	Աստրոլաբ
id	Astrolab
io	Astrolabo
ka	ასტროლაბი
ko	아스트롤라베
ku	Astrolab
lb	Astrolab
lt	Astroliabija
ml	അസ്ട്രോലാബ്
ms	Astrolab
nn	Astrolabium
no	Astrolabium

Wikipedia (39 entries) edit

en	Gutenberg Bible [ref]
ar	بيبل غوتنبرغ [ref]
be_x_old	Біблія Гутэнбэрга [ref]
be	Біблія Гутэнберга [ref]
bg	Библия на Гутенберг [ref]
ca	Biblia de Gutenberg [ref]
cs	Gutenbergova bible [ref]
da	Gutenbergbibelen [ref]
de	Gutenberg-Bibel [ref]
eo	Biblio de Gutenberg [ref]
es	Biblia de Gutenberg [ref]
eu	Gutenbergen Biblia [ref]
fi	Gutenbergin Raamattu [ref]
fr	Bible de Gutenberg [ref]
fy	Gutenbergbibel [ref]
he	תנ"ך גוטנברג [ref]
hi	गुटेनबर्ग बाइबिल [ref]
hr	Gutenbergova Biblija [ref]
hy	Գուտենբերգի Աստվածաշունչ [ref]
ia	Biblia de Gutenberg [ref]
id	Alkitab Gutenberg [ref]
it	Bibbia di Gutenberg [ref]
ja	グーテンベルク聖書 [ref]
ka	გუტენბერგის ბიბლია [ref]
ko	구텐베르크 성경 [ref]
lv	Gūtenberga bībele [ref]

count	collectionLabel
10895	Cultural Heritage Agency of the Netherlands Art Collection
9782	Finnish National Gallery
8369	Metropolitan Museum of Art
8031	Smithsonian American Art Museum
6922	Bavarian State Painting Collections
6696	Statens Museum for Kunst
5559	Rijksmuseum
5461	Department of Paintings of the Louvre
5431	Royal Collection
5090	Tate
5045	Hermitage Museum
4786	National Gallery
4112	Musée d'Orsay
3930	Art Gallery of New South Wales
3800	Österreichische Galerie Belvedere
3767	Museum of Fine Arts
3729	National Galleries of Scotland
3611	National Gallery of Art

commons:Gerard David Tryptique de la famille Sedano Bruges 1523.jpg

Triptych of the Sedano family

commons:Giotto di Bondone - Stigmatization of St Francis - WGA09329.jpg

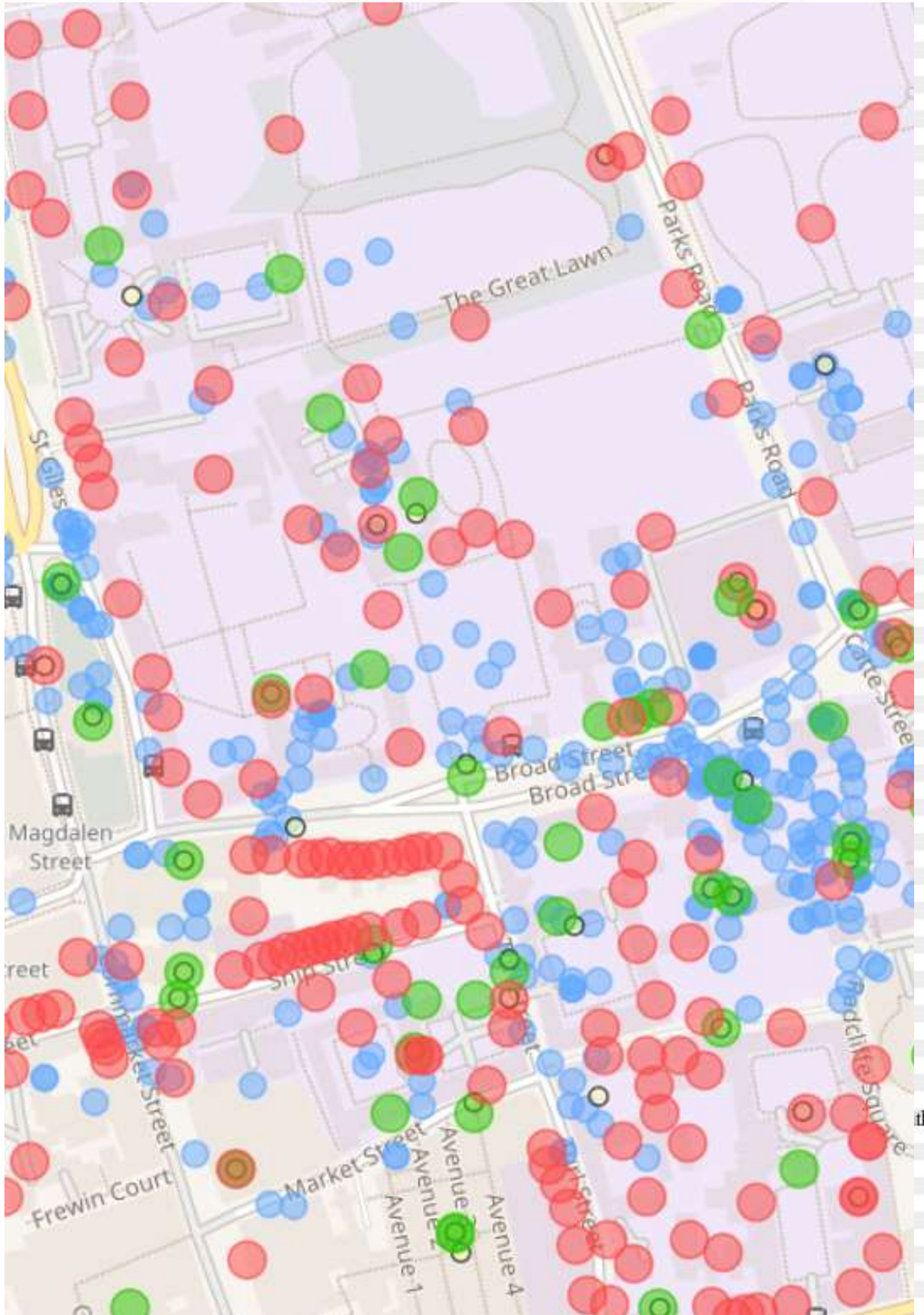
St. Francis of Assisi Receiving the Stigmata

commons:Claude Lorrain 012.jpg

Village Fête

commons:Titian - Christ crowned with Thorns - Louvre.jpg

The Crowning with Thorns



- Zika virus infection in a traveller returning to Europe
- Detection of Zika virus in saliva
- Zika: the new arbovirus threat for Latin America
- Zika virus: following the path of dengue and chikungu
- Zika: another sexually transmitted infection?
- Detection of Zika Virus Infection in Thailand, 2012-20
- Biology of Zika Virus Infection in Human Skin Cells
- Zika Virus in an American Recreational Traveler
- Zika Virus Transmission from French Polynesia to Br
- Zika Virus Outbreak, Bahia, Brazil
- Potential of selected Senegalese Aedes spp. mosquito
- Zika virus outbreaks in the Americas
- Outbreak of Exanthematous Illness Associated with Z
- Zika virus spreads across Americas as concerns mou
- Zika virus intrauterine infection causes fetal brain
- Inactivation of Zika virus in plasma with amotos
- First detection of autochthonous Zika virus trans
- First US case of Zika virus infection is identified
- Zika virus infection in a traveller returning from the M
- Zika fever imported from Thailand to Japan, and
- Zika virus outbreak prompts US to issue travel al
- Jamaica advises women to avoid pregnancy as Zi
- Interim Guidelines for Pregnant Women During a
- Sixty seconds on . . . Zika virus
- ZIKA virus circulates in new regions
- One-step RT-PCR for detection of Zika virus
- Zika Virus Outbreak on Yap Island, Federated States of Micronesia
- Zika Virus in the Americas — Yet Another Arbovirus
- Zika virus: a previously slow pandemic spreads rapid
- Rapid spread of emerging Zika virus in the Pacific area
- Zika virus spreads across Americas as concerns mou
- Molecular evolution of Zika virus during its emergence in
th Zika or Langat Virus
- Interim Guidelines for Pregnant Women During a Zi
- Genetic and serologic properties of Zika virus associated with an epidemic, Yap State
- Zika virus outside Africa
- Zika virus outbreaks prompt warnings to pregnan
- Etymologia: Zika Virus
- Probable non-vector-borne transmission of Zika virus, Colorado, USA
- Genetic characterization of Zika virus strains: geographic expansio

A Wikidata entry

- https://www.wikidata.org/wiki/Q20088196

Some properties in Wikidata

People
- Birth date/ location
- Death date/ location
- Gender
- Award received
- Given names/ family name

Publications
- Date of (first) publication
- Main topic
- Original language
- Genre

Events
- Start and end date
- Location

Organisations
- Headquarters location
- Inception date

Some relationships in Wikidata

People and publications:

- Author
- Described in source

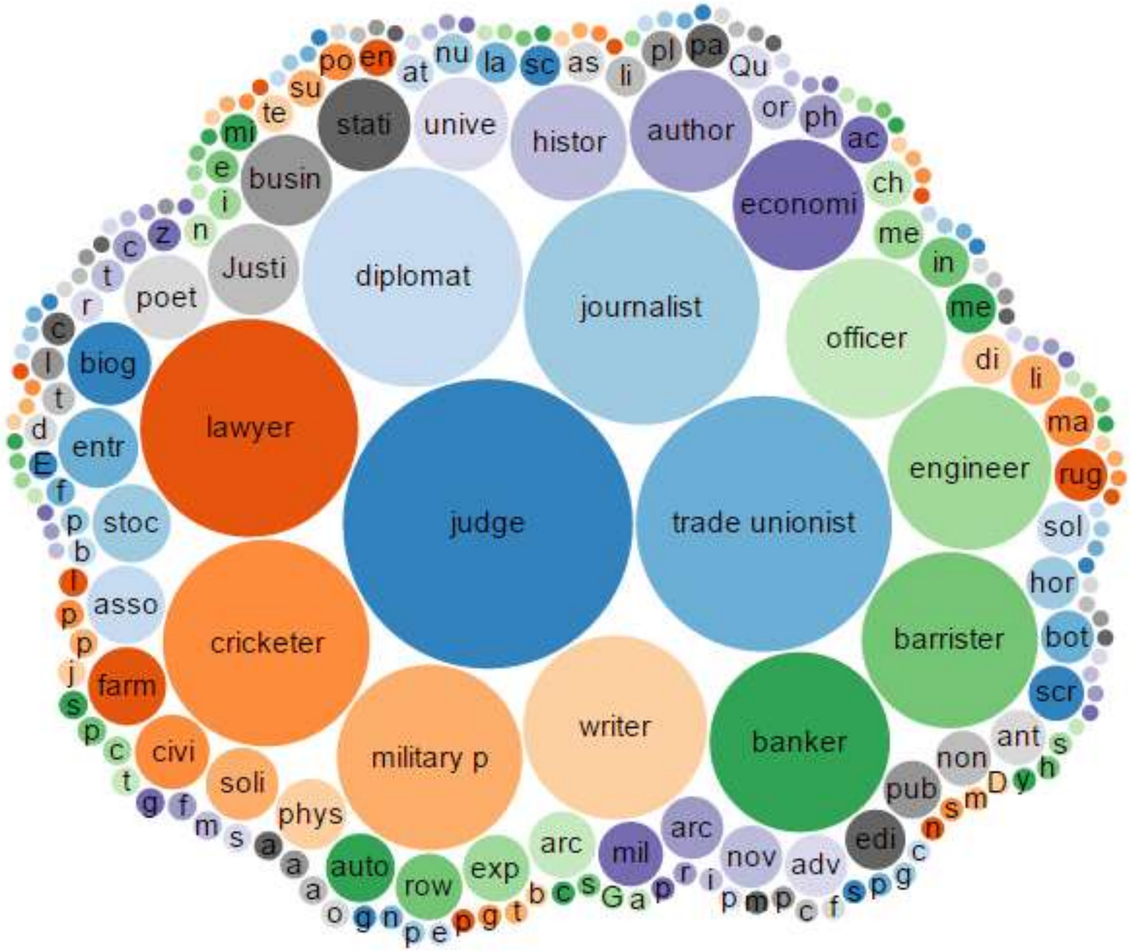
Relations between people:

- Family relations
- Influence

People and organisations:

- Founder
- Leader
- Employer
- Alma Mater

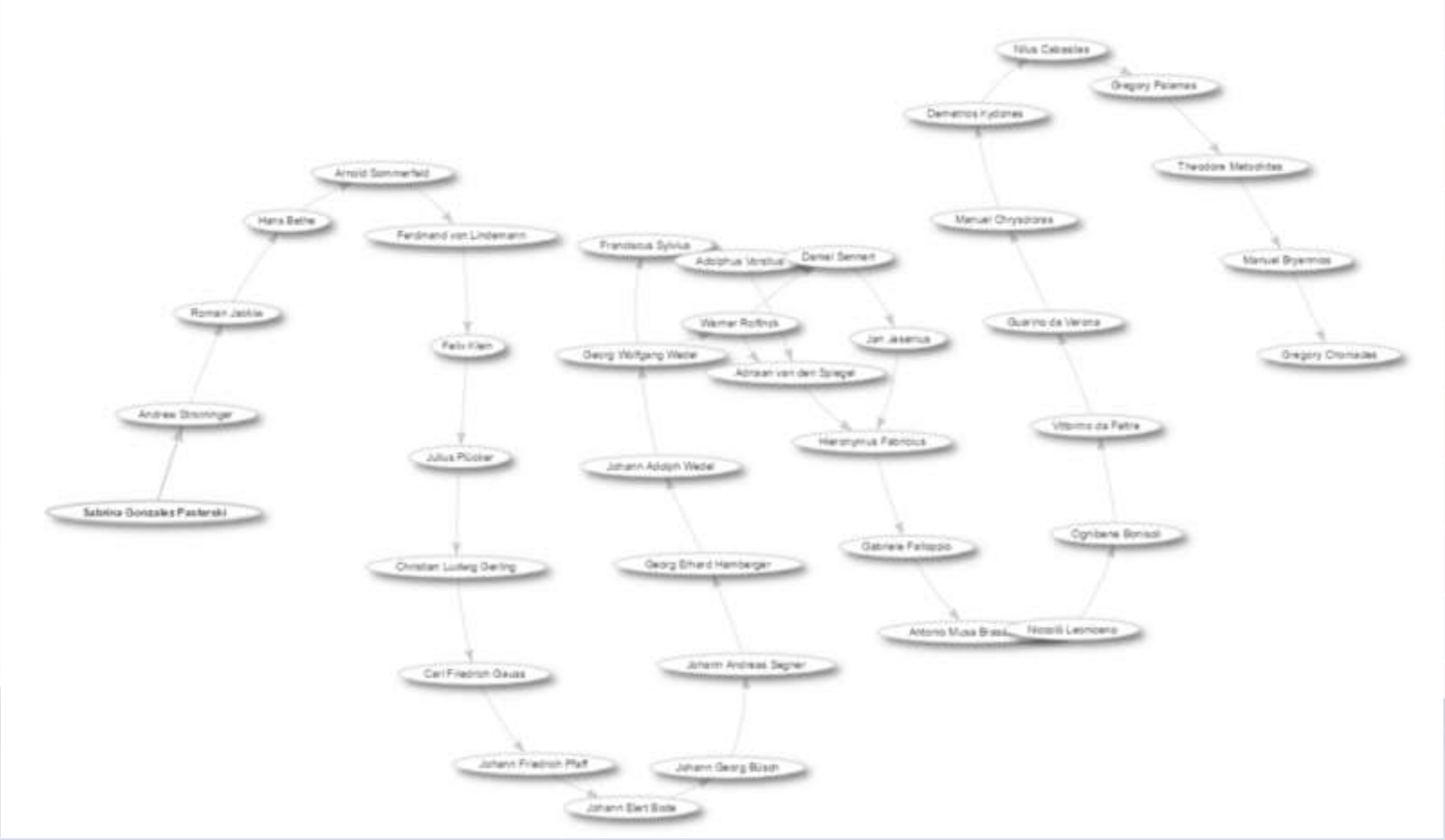
Probing parliaments

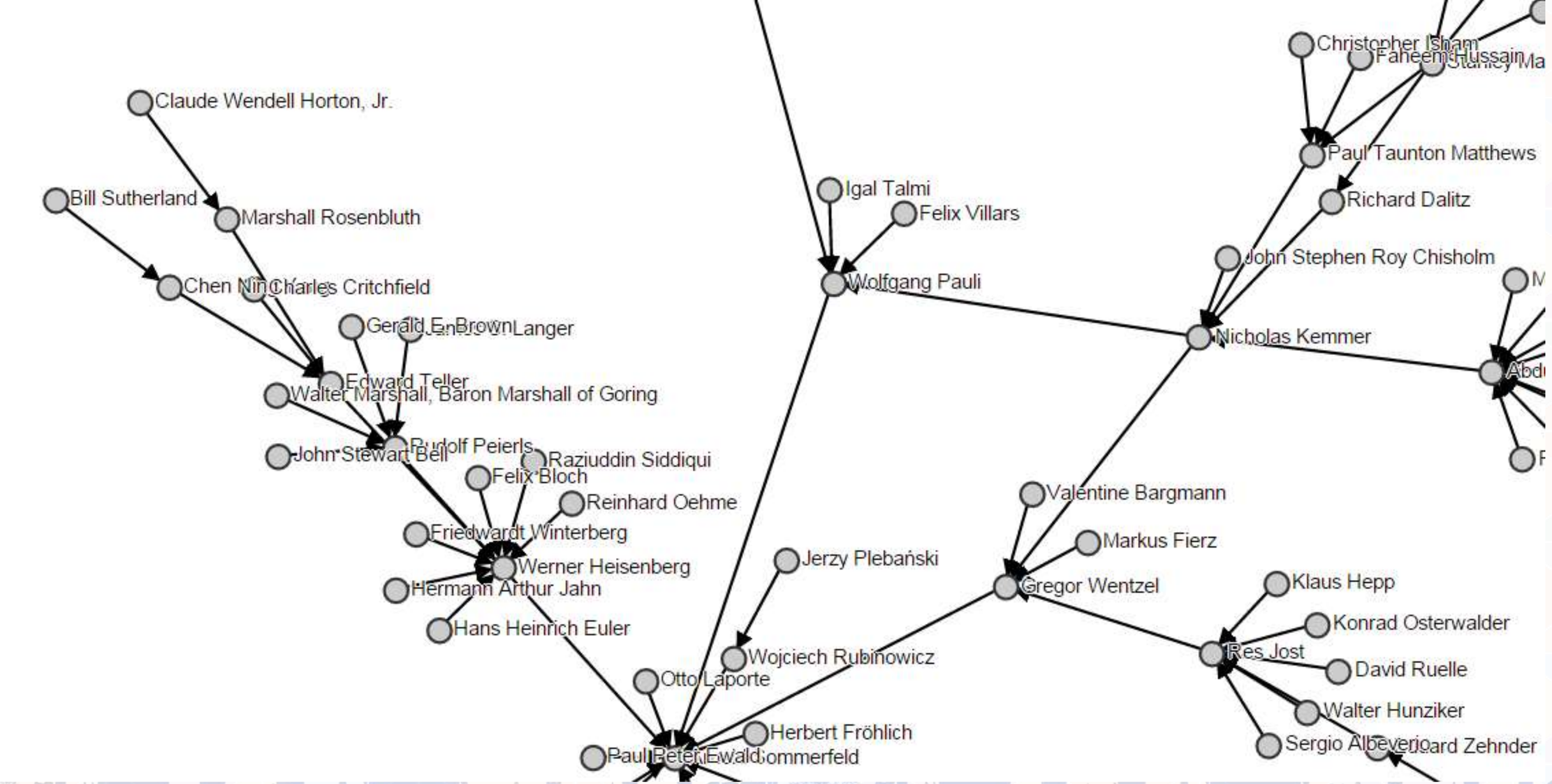


Doctoral advisors

p1	p1Label	p1birth	p2	p2Label	p2birth	diff
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q115398	Ulrich Stuhler	Jan 1, 2000	760
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q1232565	Dmitry Kramkov	Jan 1, 2000	760
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q2440058	Tom Sanders	Jan 1, 2000	760
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q726706	Victor Kolyvagin	Jan 1, 2000	760
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q7938273	Vladimir Berkovich	Jan 1, 2000	760
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q1686446	Jeffrey H. Smith	Jan 1, 2000	760
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q22092846	Sabrina Gonzalez Pasterski	Jun 3, 1993	753
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q23721911	Maryna Viazovska	Dec 2, 1984	744
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q6118639	Jacob Fox	Jan 1, 1984	744
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q22265413	Thomas Willwacher	Apr 12, 1983	743
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q1947971	Moritz Kerz	May 1, 1983	743
wd:Q3118446	Gregory Choniades	Jan 1, 1240	wd:Q5232508	David Conlon	Jan 1, 1982	742

Longest doctoral chain in Wikidata





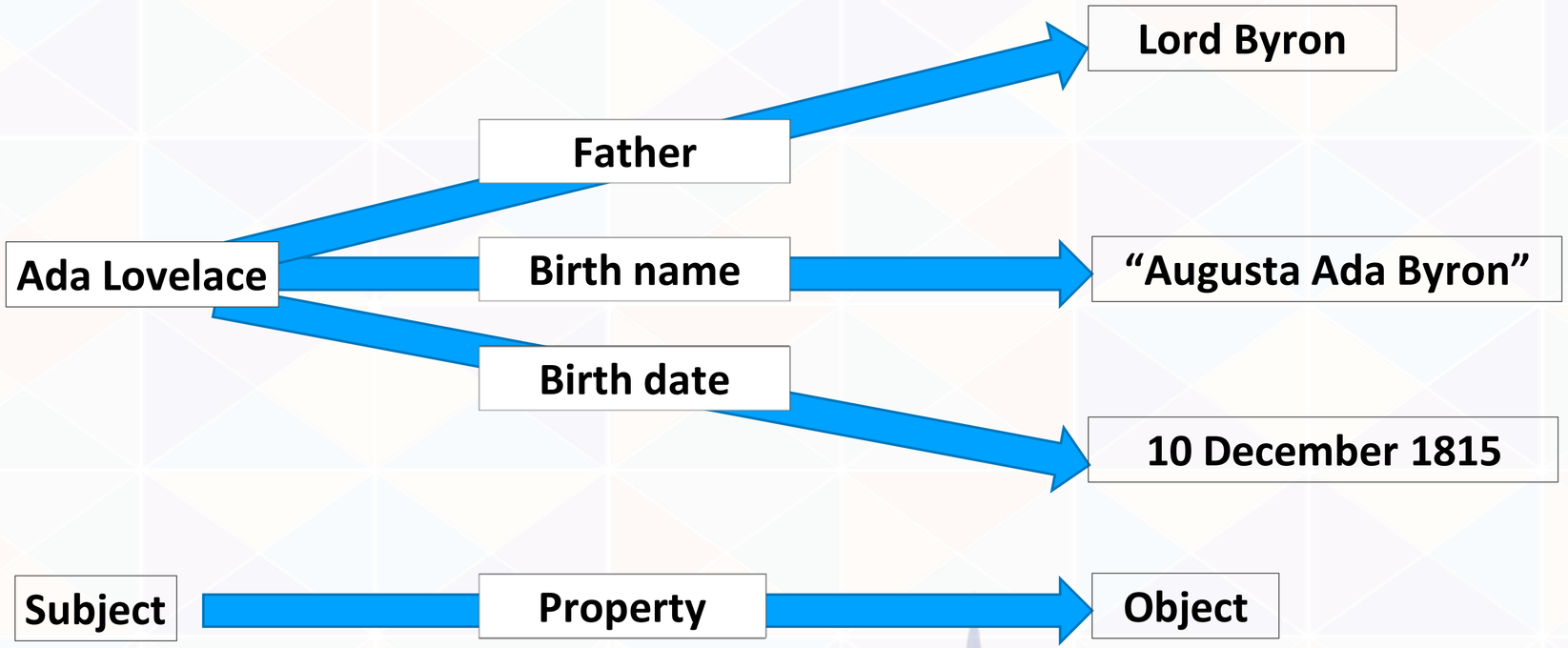
https://angryloki.github.io/wikidata-graph-builder/

Wikidata graphs

- Go to https://angryloki.github.io/wikidata-graph-builder/
- For Traversal property, select *influenced by*.
- For Root item, select your favourite historical figure!
- For Mode, select *Reverse*.
- Press *Build*
- If you like the resulting tree, record the web address.

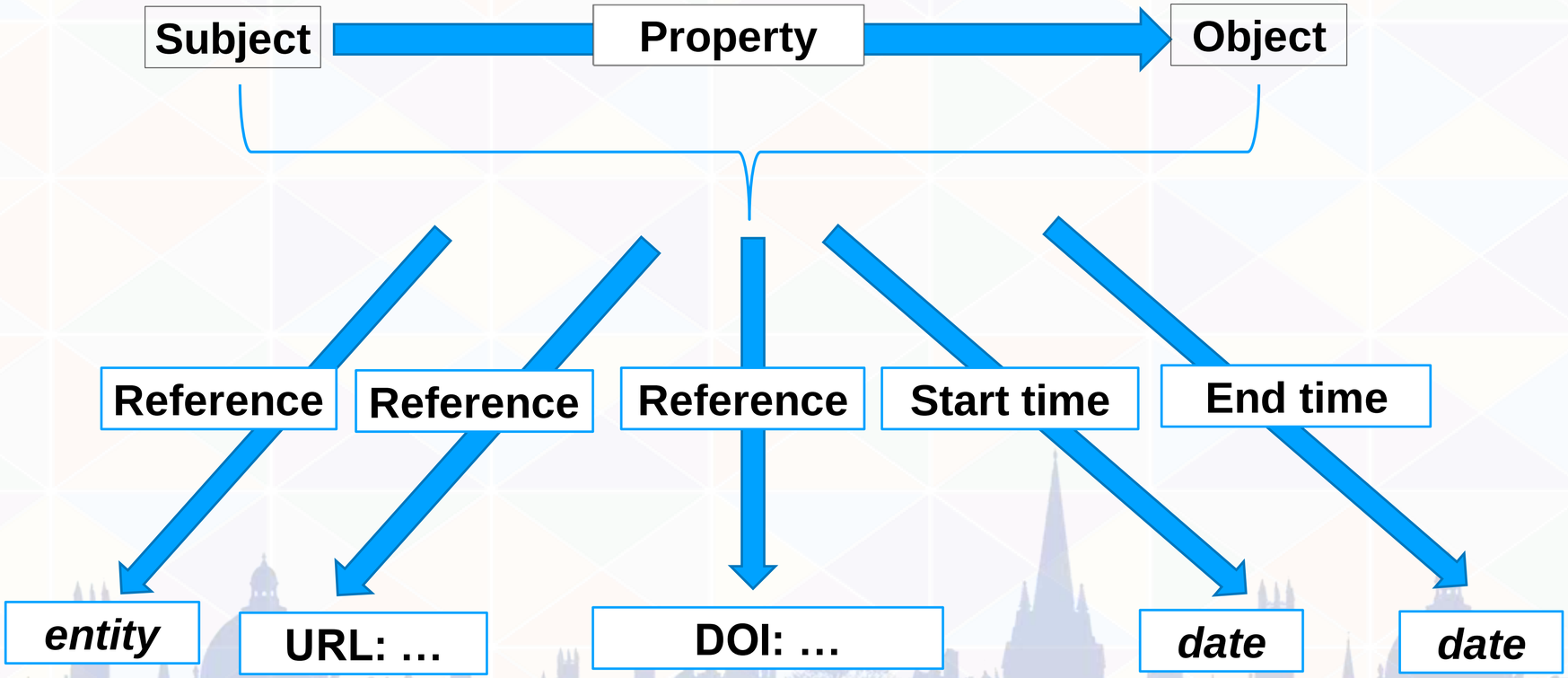
Knowledge representation in Wikidata

Data structures in Wikidata



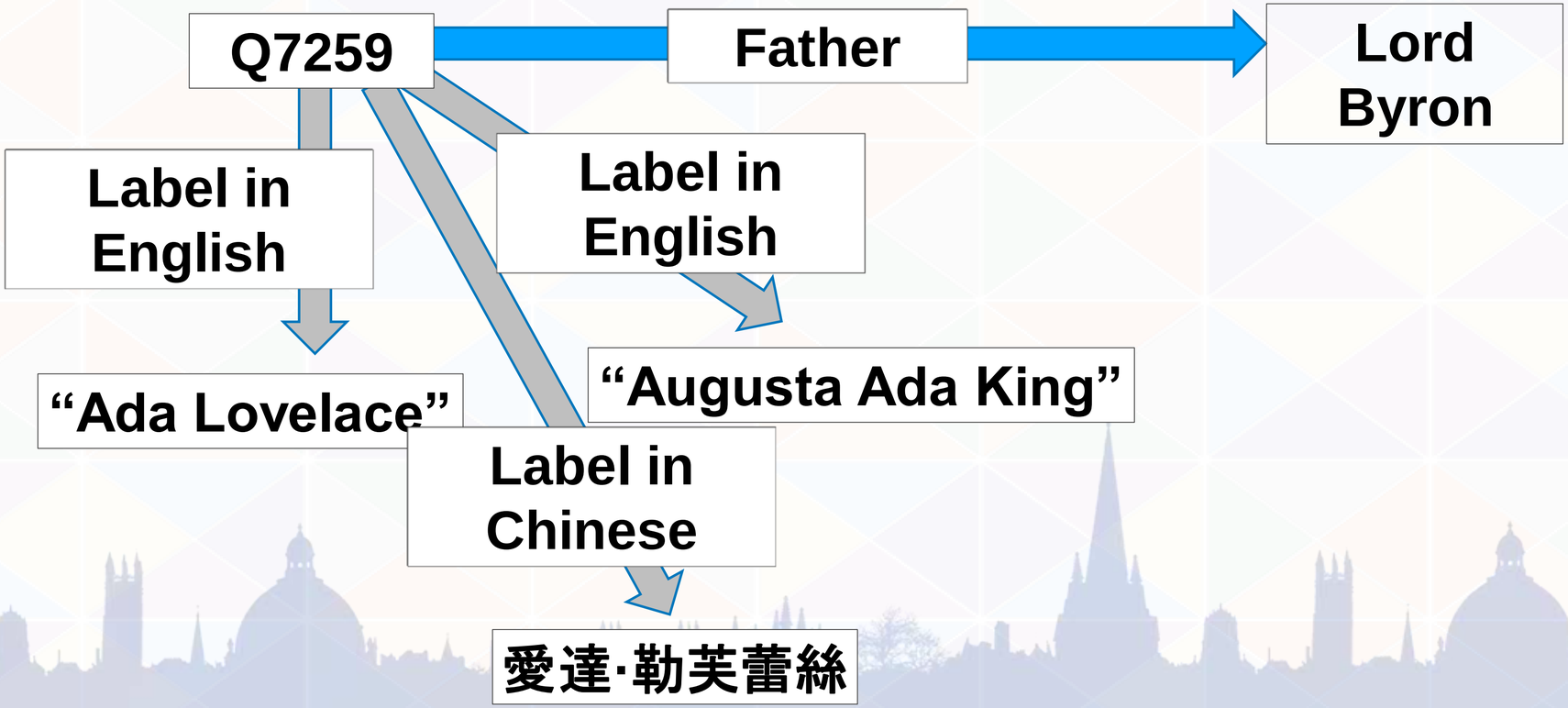
Data structures in Wikidata

Properties of statements



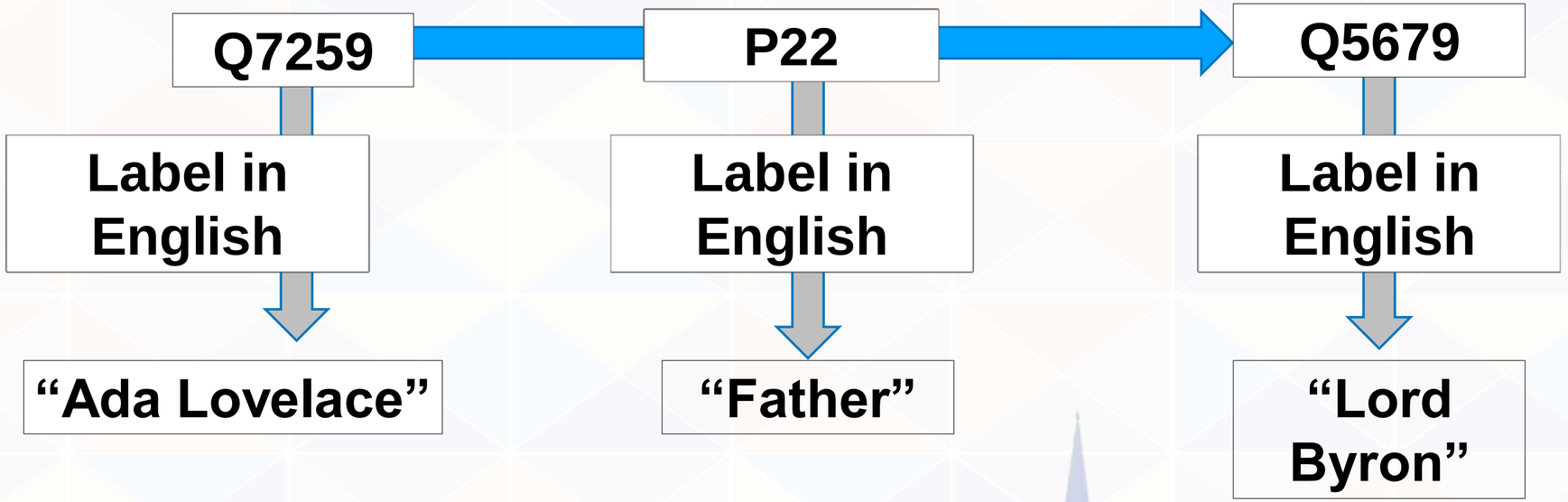
Language independence

Language independence



Language independence

Language independence



Quiz

The Bodleian Library is Q82133 on Wikidata.

The species *homo sapiens* is Q5.

The planet Earth is Q2.

- What's Q1?
- What's Q42?
- What's Q13?

Make an interactive map

- Go to query.wikidata.org
- Click on *Examples*

- From the list, select Music composers by birth place
- In the query explainer, click on *composer* and type *bookseller*
- Click *Run*

Sharing surface data

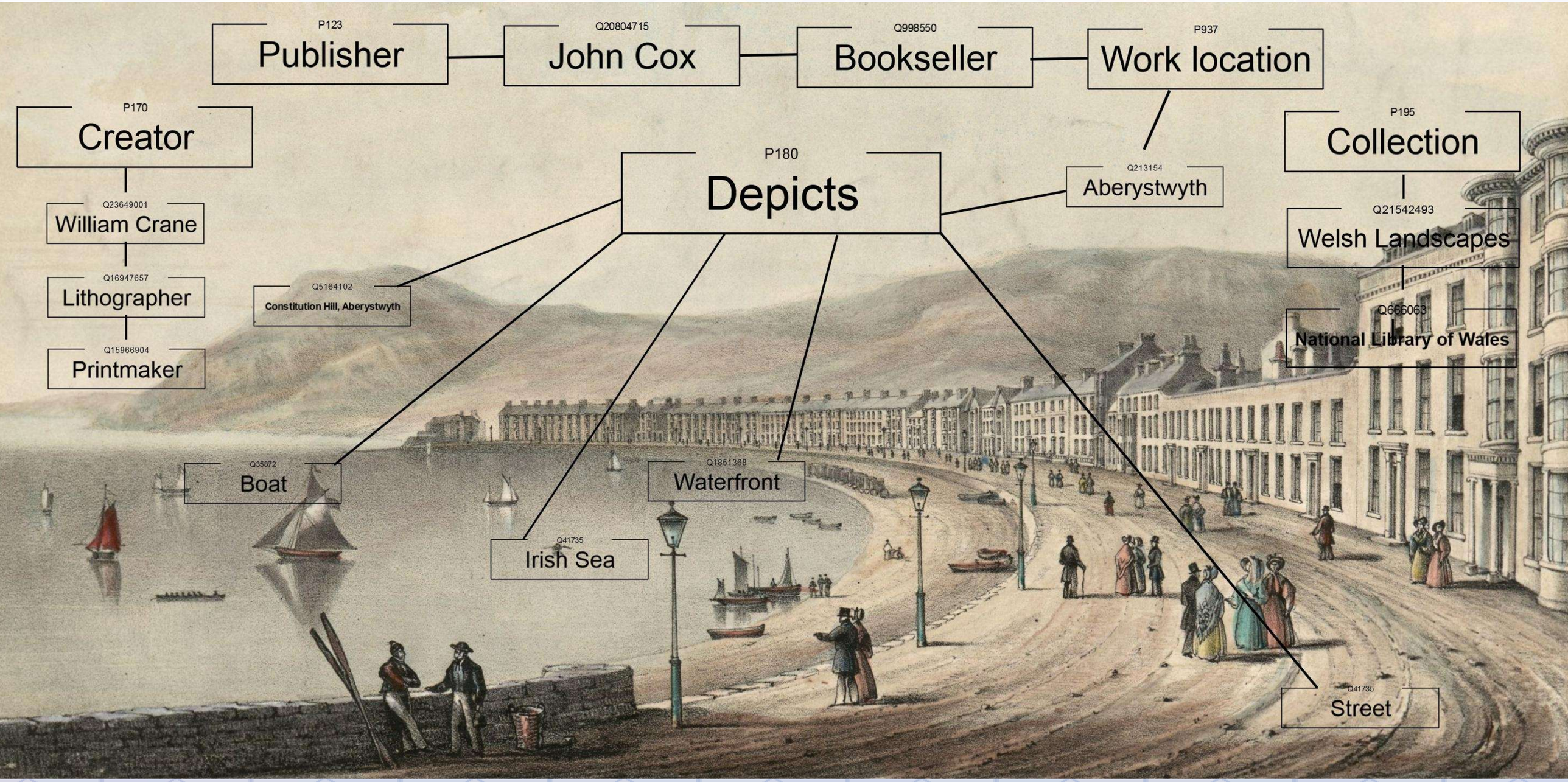
- Electronic Enlightenment

- Early Modern Letters Online

If you want to get the most value out of a database, find out the Q numbers of the things in it.

Sharing more data

- Atlas of Hillforts (names, identifiers, locations, types)


P123
Publisher
Q20804715
John Cox
Q998550
Bookseller
P937
Work location
P170
Creator
Q23649001
William Crane
Q16947657
Lithographer
Q15966904
Printmaker
P180
Depicts
Q5164102
Constitution Hill, Aberystwyth
Q35872
Boat
Q41735
Irish Sea
Q1851368
Waterfront
Q213154
Aberystwyth
P195
Collection
Q21542493
Welsh Landscapes
Q666063
National Library of Wales
Q41735
Street

National Library of Wales project

- Welsh landscape art: data visualisations

Books into text into data

TEI	Wikisource
Semantic markup	Presentational markup
XML	Wikicode (but XML export)
Original research	No original annotations
Separate documents	A web

Plomer book transcription

- On Wikisource