Wikidata 101: An introduction for the citation-oriented

Andrew Lih | Wikipedia/Wikidata trainer
WikiCite 2018
November 28, 2018
#Wikicite
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Slides:
http://bit.ly/wikicite2018wikidataintro

One page guide:
http://bit.ly/wikidata-onepage

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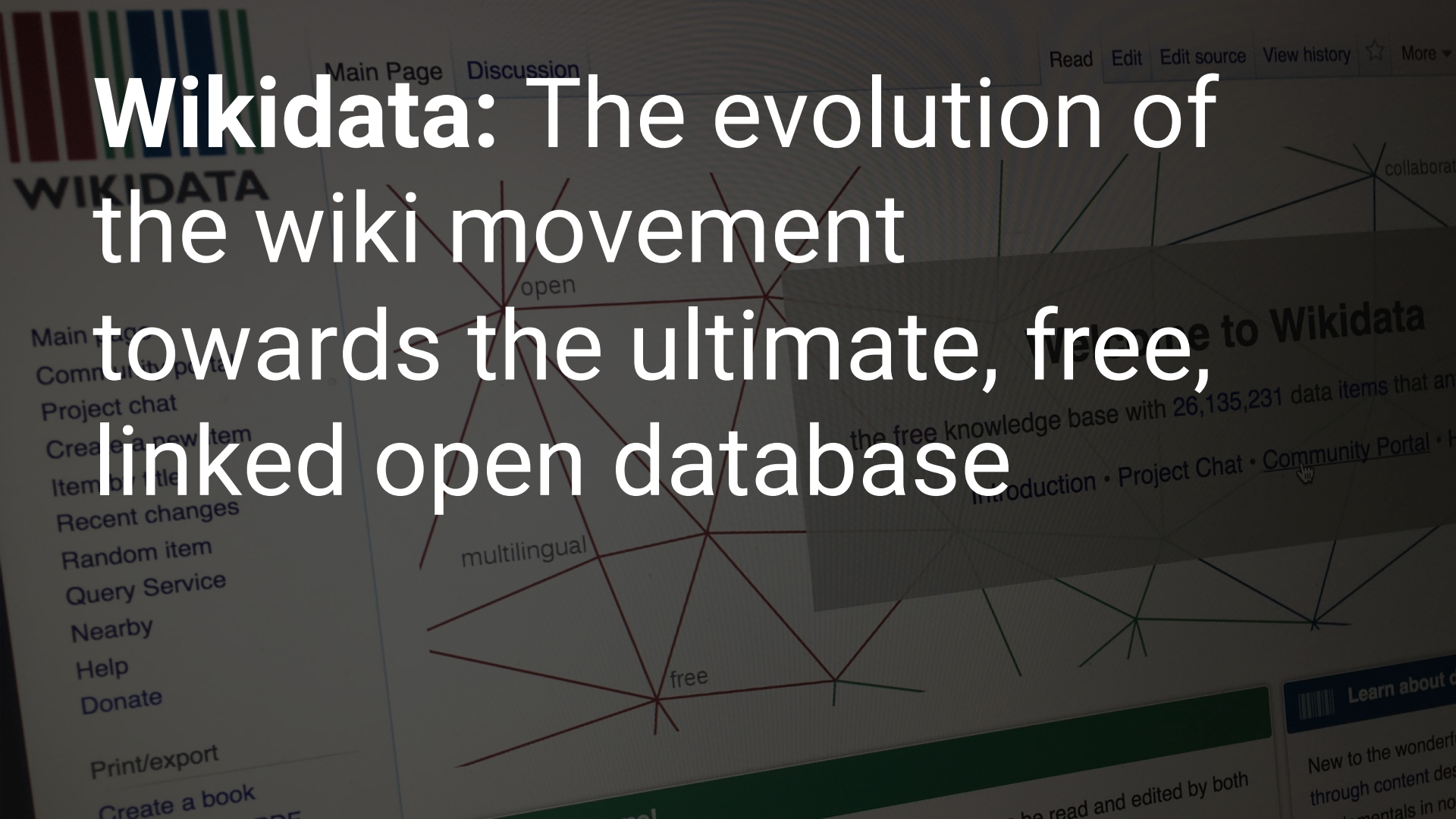
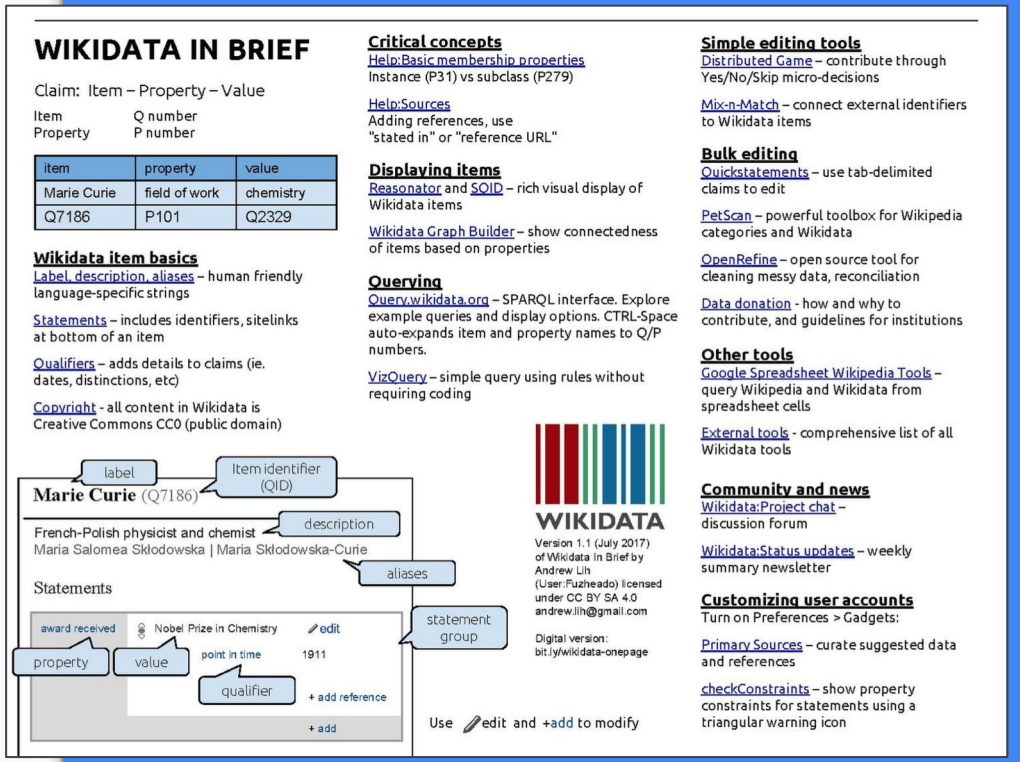


Wikidata: The evolution of the wiki movement towards the ultimate, free, linked open database

Wikidata
In one page

http://bit.ly/wikidata-onepage



WIKIDATA IN BRIEF

Claim: Item – Property – Value

Item Q number
Property P number

item	property	value
Marie Curie	field of work	chemistry
Q7186	P101	Q2329

Wikidata item basics

Label, description, aliases – human friendly language-specific strings

Statements – includes identifiers, sitelinks at bottom of an item

Qualifiers – adds details to claims (ie. dates, distinctions, etc)

Copyright - all content in Wikidata is Creative Commons CC0 (public domain)

Critical concepts

Help:Basic membership properties
Instance (P31) vs subclass (P279)

Help:Sources
Adding references, use "stated in" or "reference URL"

Displaying items

Reasonator and SQID – rich visual display of Wikidata items

Wikidata Graph Builder – show connectedness of items based on properties

Querying

Query.wikidata.org – SPARQL interface. Explore example queries and display options. CTRL-Space auto-expands item and property names to Q/P numbers.

VizQuery – simple query using rules without requiring coding

label
Item identifier (QID)
Marie Curie (Q7186)
description
French-Polish physicist and chemist
Maria Salomea Skłodowska | Maria Skłodowska-Curie
aliases
Statements
statement group
award received
Nobel Prize in Chemistry
edit
property
value
point in time
1911
qualifier
+ add reference
+ add

WIKIDATA

Version 1.1 (July 2017) of Wikidata In Brief by Andrew Lih (User:Fuzheado) licensed under CC BY SA 4.0
andrew.lih@gmail.com

Digital version: bit.ly/wikidata-onepage

Use edit and +add to modify

Simple editing tools

Distributed Game – contribute through Yes/No/Skip micro-decisions

Mix-n-Match – connect external identifiers to Wikidata items

Bulk editing

Quickstatements – use tab-delimited claims to edit

PetScan – powerful toolbox for Wikipedia categories and Wikidata

OpenRefine – open source tool for cleaning messy data, reconciliation

Data donation - how and why to contribute, and guidelines for institutions

Other tools

Google Spreadsheet Wikipedia Tools – query Wikipedia and Wikidata from spreadsheet cells

External tools - comprehensive list of all Wikidata tools

Community and news

Wikidata:Project chat – discussion forum

Wikidata:Status updates – weekly summary newsletter

Customizing user accounts

Turn on Preferences > Gadgets:

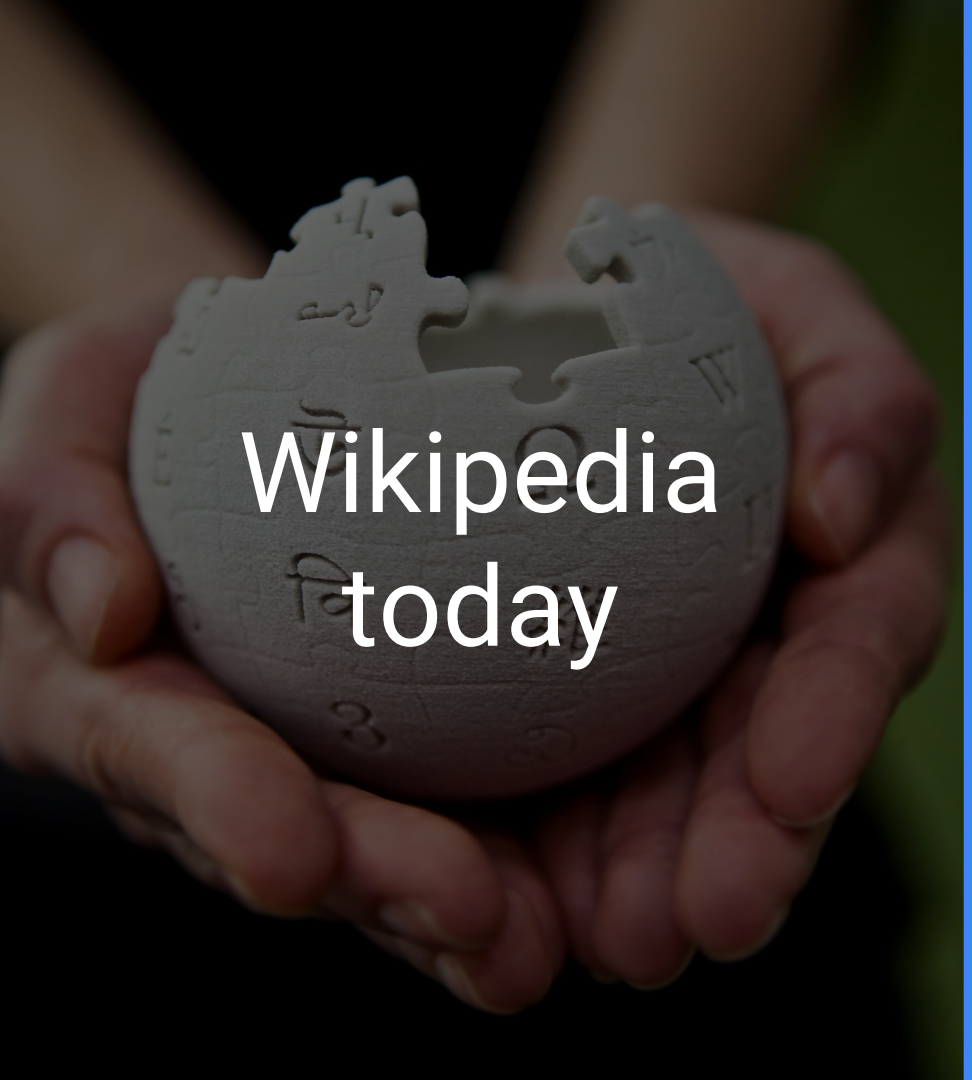
Primary Sources – curate suggested data and references

checkConstraints – show property constraints for statements using a triangular warning icon

2017: A Wikidata turning point

- Wikidata used by
  - Google Knowledge Graph
  - Digital assistants: Siri, Alexa
- Infoboxes on Wikipedia
- Structured data on Commons
- Wikicite, WikidataCon conferences

A hub for the future of Wikimedia, academic, bibliographic content

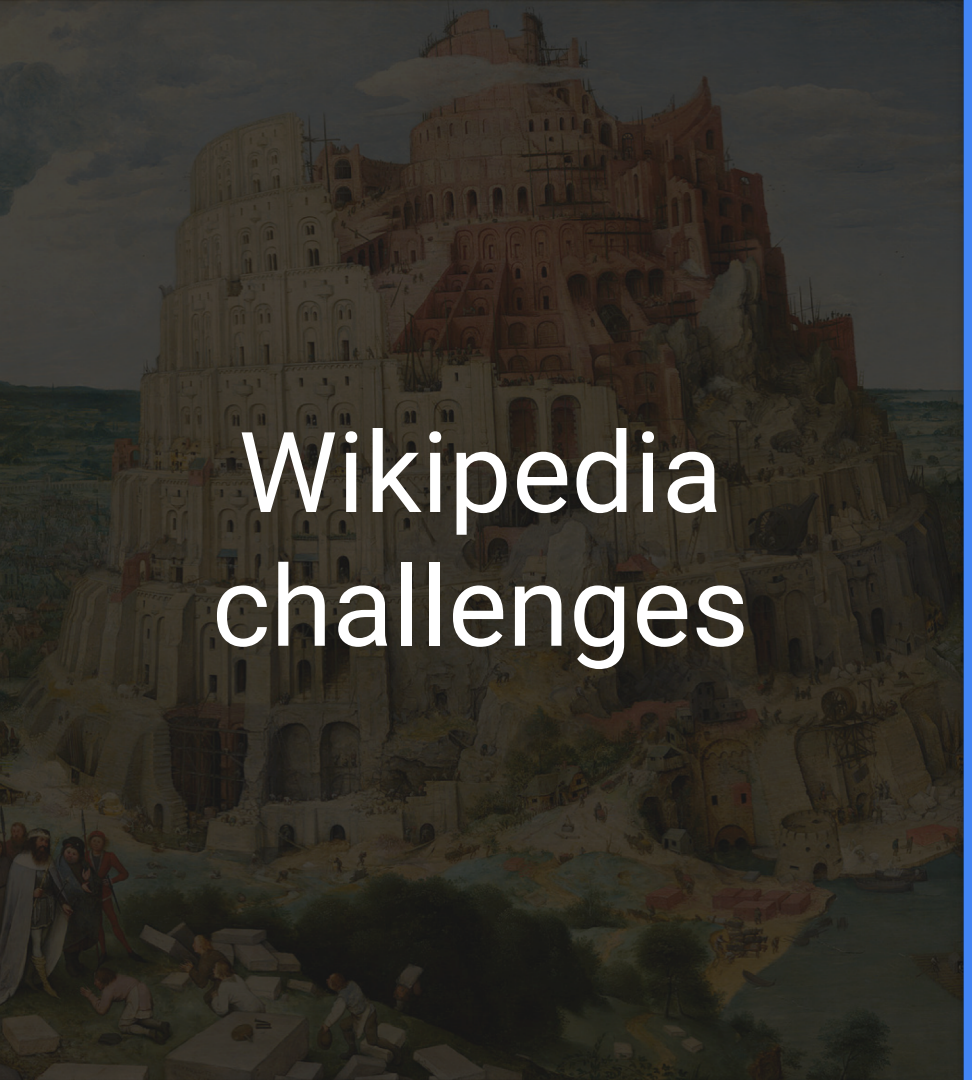


Wikipedia today

More than 5.7 million English articles

Top 10 most visited site

High reputation and cultural partnerships



Wikipedia challenges

Knowledge scattered among 30 million articles in 200+ languages

Inconsistency, gaps and replication

How to consolidate knowable facts?

Lesson: Consolidating images and multimedia

2001: Images scattered across Wikipedia editions

2004: **Wikimedia Commons** centralized and consolidated multimedia

commons.wikimedia.org

Wikidata as the future

Convert encyclopedic lexical content into "structured" statements

Turn human readable into machine understandable

Link to stable external data of LAM institutions

"Semantic web" realized

Facts and figures from articles, infoboxes are only in human-readable prose

WIKIPEDIA
The Free Encyclopedia

United States Congress

From Wikipedia, the free encyclopedia

Coordinates: 38°53′23″N 77°0′32″W

For the current Congress, see 115th United States Congress. For the building, see United States Capitol.

The **United States Congress** is the bicameral legislature of the federal government of the United States consisting of two chambers: the Senate and the House of Representatives. The Congress meets in the Capitol in Washington, D.C. Both senators and representatives are chosen through direct election, though vacancies in the Senate may be filled by a gubernatorial appointment. Members are usually affiliated to the Republican Party or to the Democratic Party, and only rarely to a third party or as independents. Congress has 535 voting members: 435 Representatives and 100 Senators. The House of Representatives has six non-voting members in addition to its 435 voting members. These members can, however, sit on congressional committees and introduce legislation. These members represent Washington, D.C., Puerto Rico, American Samoa, Guam, the Northern Mariana Islands and the U.S. Virgin Islands.

The members of the House of Representatives serve two-year terms representing the people of a single constituency, known as a "district".

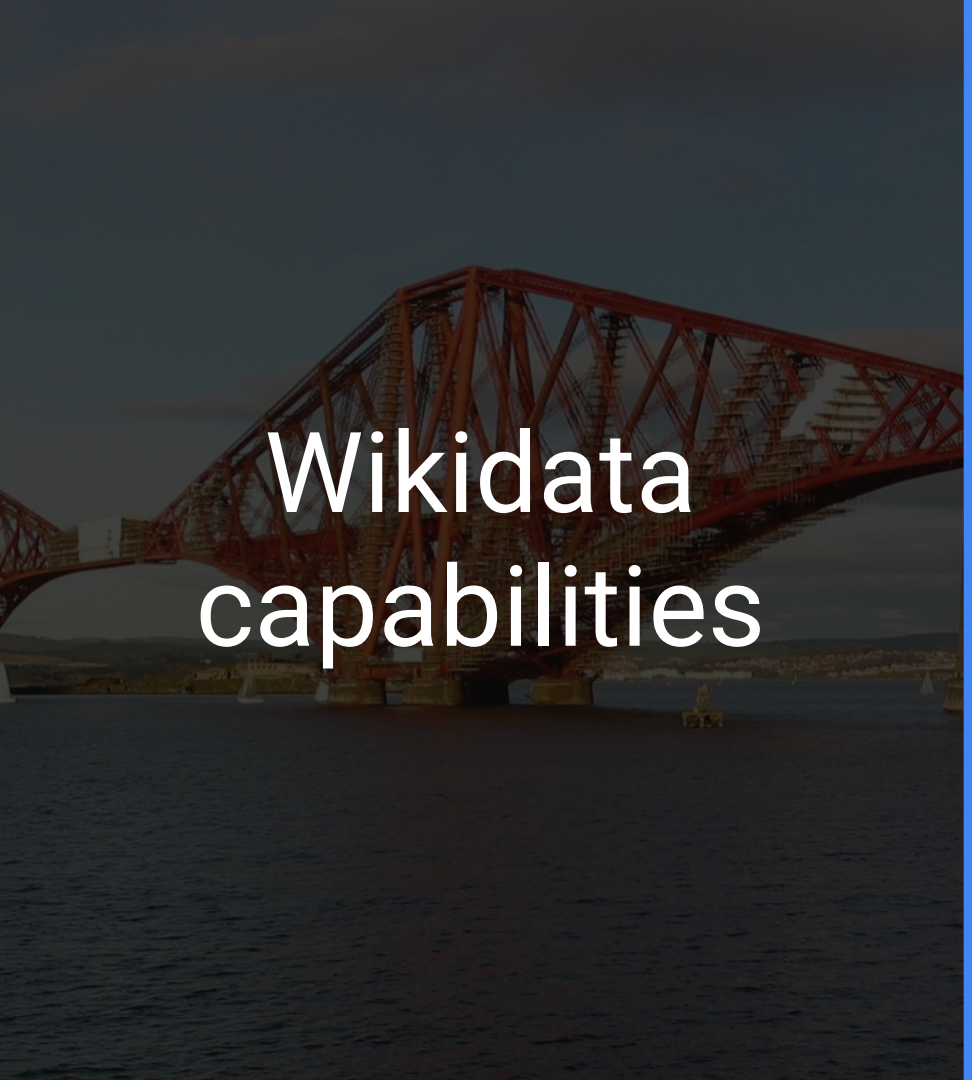
United States Congress

115th United States Congress

Type	
Type	Bicameral
Houses	Senate House of Representatives

Navigation boxes at bottom of Wikipedia articles done by hand

V·T·E	**United States Congress**	[hide]
House of Representatives · Senate · (114th←115th→116th) · Lists of congressional lists		
Members and leaders		[hide]
Members	**Current**	By length of service · Freshmen · Youngest members · Resident Commissioner of Puerto Rico · Delegates · Longest-serving members ever
	Senate	Current (by seniority) · Dean of the Senate · Former senators (Living) · Earliest serving · Earliest living · Expelled or censured · Classes · Born outside the U.S.
	House	Current (by seniority) · Dean of the House · Former representatives (Living) · Oldest living · Earliest serving · Expelled, censured, and reprimanded
Leaders	**Senate**	President (list) · President pro tempore (list) · Majority and minority leaders · Assistant party leaders · Democratic Caucus (Chair · Secretary · Policy Committee Chair) · Republican Conference (Chair · Vice-Chair · Policy Committee Chair)
	House	Speaker · Leaders · Bipartisan Legal Advisory Group · Democratic Caucus · Republican Conference
Districts	List · Apportionment	
Caucuses, women and minorities	Congressional caucus · African Americans in the House (Congressional Black Caucus) · African Americans in the Senate · Asian Pacific American members (Congressional Asian Pacific American Caucus) · Hispanic and Latino members (Congressional Hispanic Caucus · Congressional Hispanic Conference) · Jewish members · LGBT members (LGBT Equality Caucus) · Native American members · Women in the House (Congressional Caucus for Women's Issues) · Women in the Senate	
Powers, privileges, procedure, committees, history, and media		[hide]
Powers	Article I · Copyright · Commerce (Dormant) · Contempt of Congress · Declaration of war · Impeachment · Naturalization · "Necessary and Proper" · Power of enforcement · Taxing/spending	
Privileges and benefits	Salaries · Franking · Immunity	
Procedure	Act of Congress (list) · Appropriation bill · Blue slip · Budget resolution · Censure · Closed sessions (House · Senate) · Cloture · Concurrent resolution · Continuing resolution · Dear colleague letter · Discharge petition · Engrossed bill · Enrolled bill · Expulsion · Joint resolution · Joint session (list) · Lame-duck session · Majority of the majority (Hastert Rule) · Multiple referral · Procedures (House) · Quorum call · Reconciliation · Rider · Saxbe fix · Sponsorship · Suspension of the rules · Unanimous consent · Veto (Line-item veto · Pocket veto · Veto override)	



Wikidata capabilities

Launched in 2012

Provides power of searching, sorting and querying

~~Sum~~ **Interconnected mesh** of all human knowledge

Fundamentals: Statements

Factual **claims** are stored as **statements** in Wikidata

subject - predicate - object

or

item - property - value

or

thing - relationship - thing

Moving to structured data

Lexical

Semantic

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United States Congress

115th United States Congress

United States Congress	instance of	bicameral legislature
United States Congress	in country	United States

Wikidata item for United States Congress (Q11268)

United States Congress (Q11268)

legislature of the United States

edit

US Congress | U.S. Congress | American Congress | Congress of the United States | Legislature of the United States | American legislature | United states legislative branch | Congress

In more languages Configure

Language	Label	Description	Also known as
English	United States Congress	legislature of the United States	US Congress U.S. Congress American Congress Congress of the United States Legislature of the United States American legislature United states legislative branch Congress

Wikidata item for United States Congress (Q11268)

Statements

instance of	bicameral legislature	edit
	0 references	+ add reference
		+ add value
part of	Federal Government of the United States	edit
	0 references	+ add reference
		+ add value
country	United States of America	edit
	0 references	+ add reference
		+ add value

Wikidata Basics

"Triple"
item - property - value

Q numbers - item

- Anyone can make a Q item
- Corresponds to Wikipedia article / concept
- Examples
  - Q1 - the Universe
  - Q2 - Earth
  - Q5 - human
  - Q146 - cat
  - Q729 - animal
  - Q571 - book
  - Q7075 - library
  - Q309331 - The Ohio State University

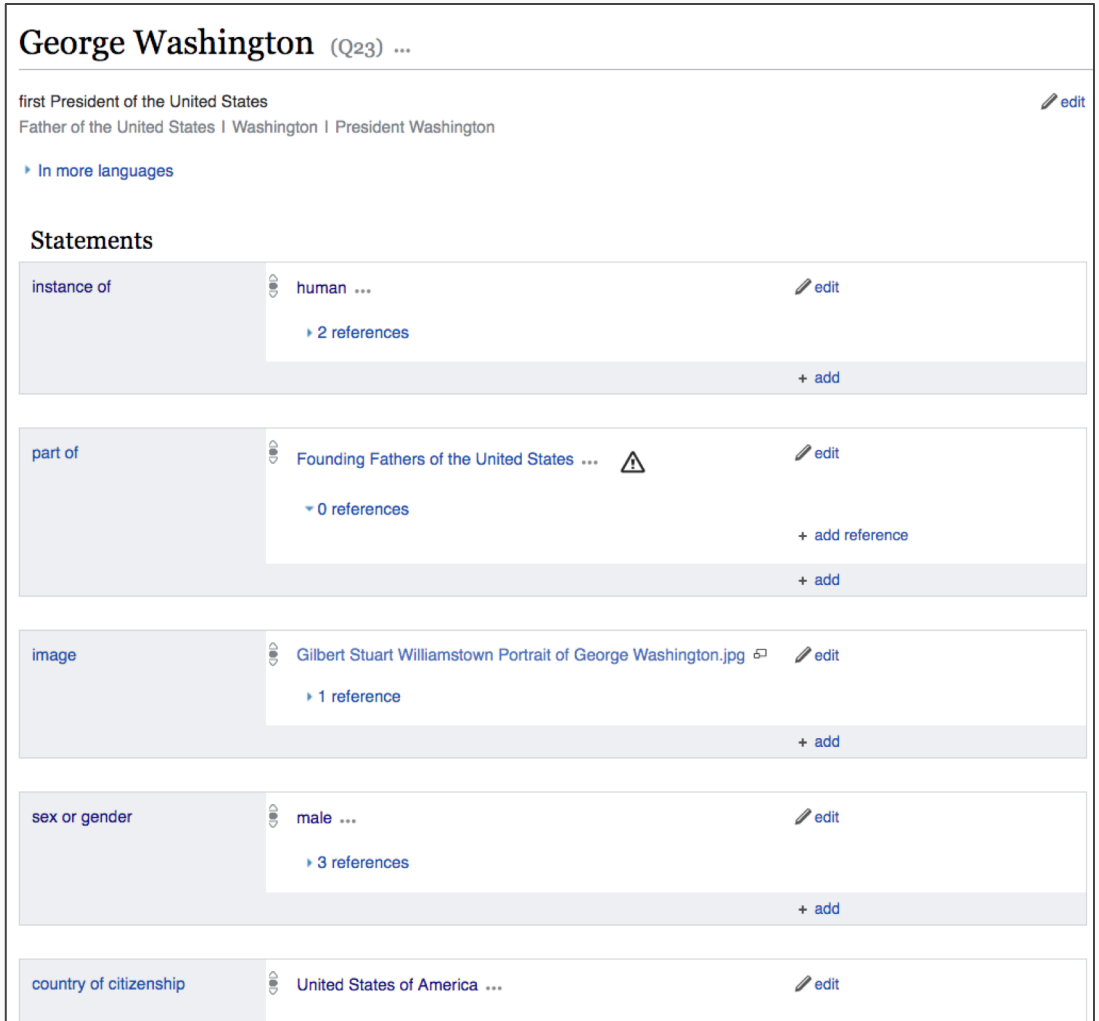
P numbers - property

- Controlled vocabulary for consistency
- Proposal, discussion and approval process
- Examples
  - P31 - instance of
  - P279 - subclass of
  - P214 - VIAF ID
  - P569 - date of birth
  - P625 - coordinate location
- See: Wikidata:List_of_properties

Wikidata item page

Claims capture factual, provable information

Any number of statements can be associated with an item



Wikidata statement triples

Underneath the surface...

Using symbols makes them language independent (identifiers vs names)

Item "George Washington"	**Property** "instance of"	**Value** "human"
Q23	P31	Q5

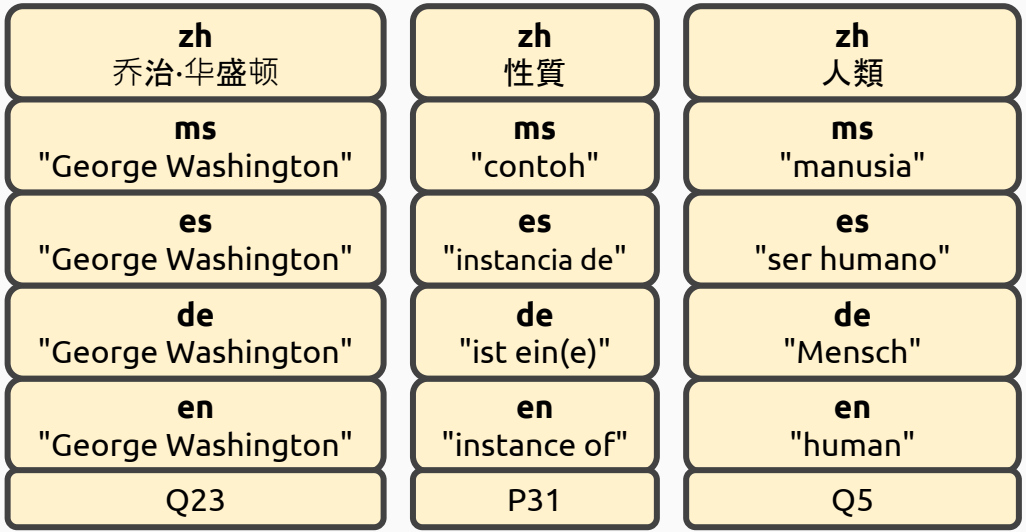
"George Washington"	"place of burial"	"Mount Vernon"
Q23	P119	Q731635

"George Washington"	"LCAuth ID"	"n86140996"
Q23	P244	

Wikidata and languages

Labels and descriptions for different languages

Exciting for translation applications



Hands On: Edit Wikidata hometown item

In a web browser, go to wikidata.org

Enter your hometown in search

Wikidata link on Wikipedia articles

Not logged in Talk Contributions Create account Log in

Article Talk Read Edit View history Search Wikipedia

WIKIPEDIA
The Free Encyclopedia

Main page
Contents
Featured content
Current events
Random article
Donate to Wikipedia
Wikipedia store

Interaction
Help
About Wikipedia
Community portal
Recent changes
Contact page

Tools
What links here
Related changes
Upload file
Special pages
Permanent link
Page information
Wikidata item
Cite this page

United States Congress

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The members of the House of Representatives serve two-year terms representing the people of a single constituency, known as a "district". Congressional districts are apportioned to states by population using the United States Census results, provided that each state has at least one congressional representative. Each state, regardless of population or size, has two senators. Currently, there are 100 senators representing the 50 states. Each senator is elected at-large in their state for a six-year term, with terms staggered, so every two years approximately one-third of the Senate is up for election.

Congress members are usually affiliated to the Republican Party or to the Democratic Party, and only rarely to a third party or as independents.

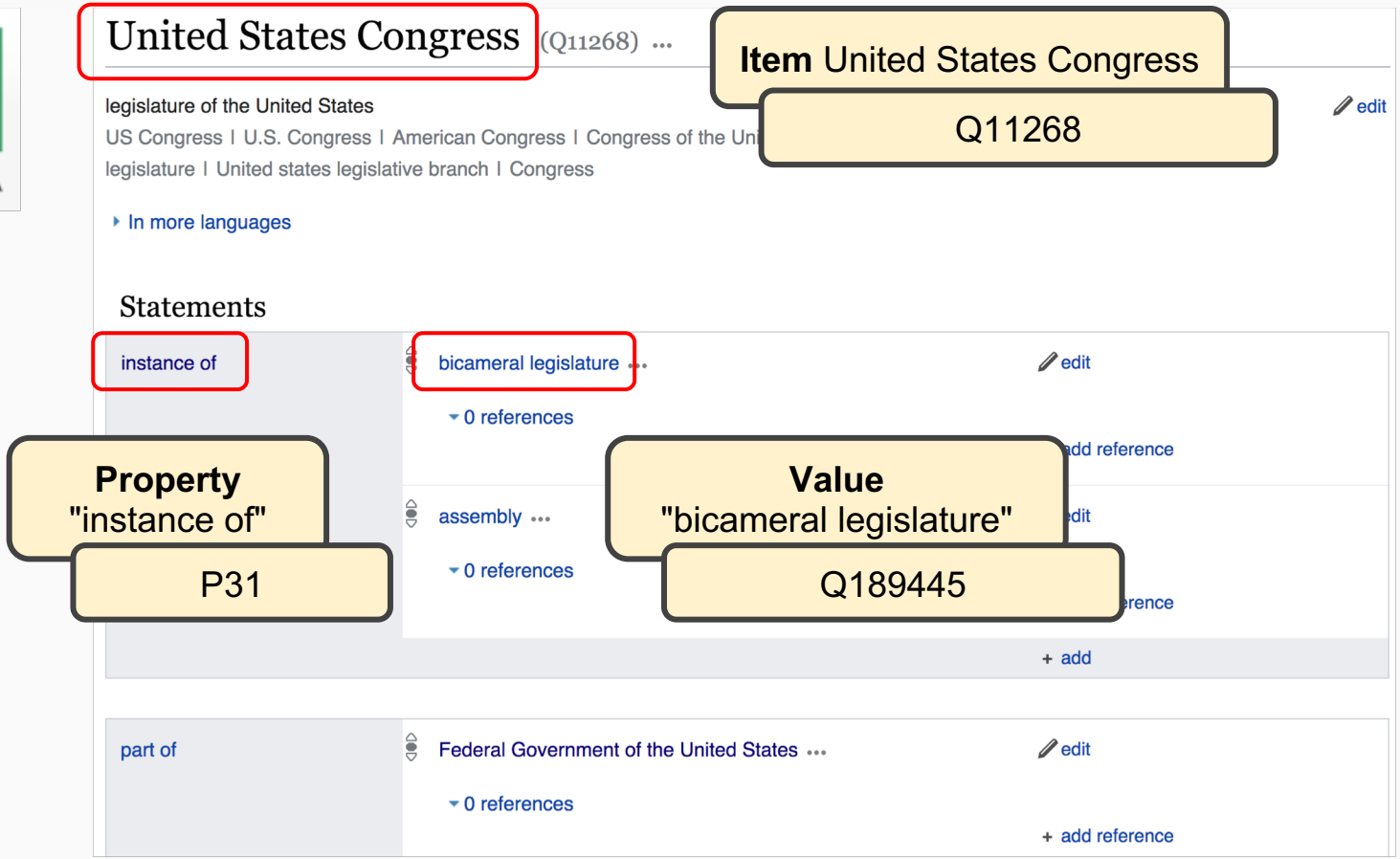
United States Congress

115th United States Congress

Type	
Type	Bicameral
Houses	Senate House of Representatives
History	
Founded	March 4, 1789 (228 years ago)
Preceded by	Congress of the Confederation

Contents [hide]

Wikidata stores statements as explicit triples - item + property + value



Wikidata statement triples

Claims capture factual, provable information

Using symbols makes them language independent (identifiers vs names)

Item	**Property**	**Value**
United States Congress	"instance of"	"bicameral legislature"
Q11268	P31	Q189445

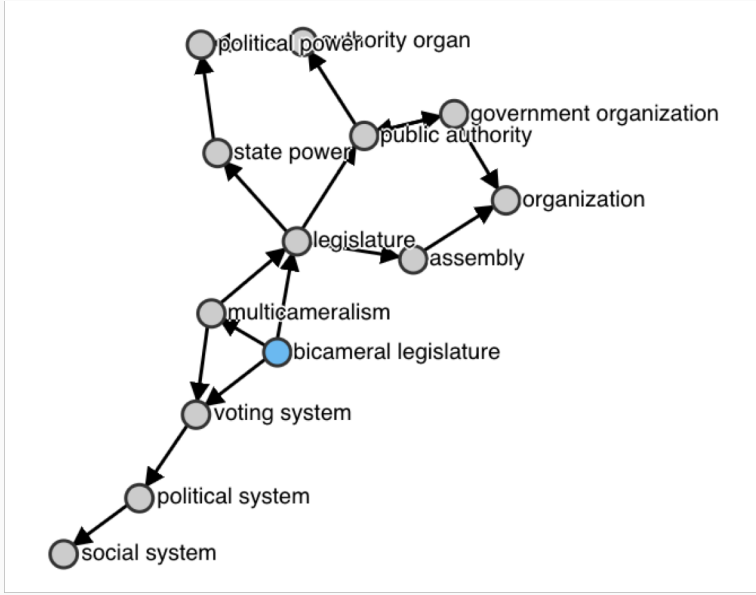
Wikidata statement triples

Relationships are "first class" = very fast to search and sort

Seconds vs minutes to search

Ad hoc data model highly adaptive

Well-suited to the wiki way



Item	**Property**	**Value**
United States Congress	"instance of"	"bicameral legislature"
Q11268	P31	Q189445

Wikidata items

Using identifiers removes language dependence and ambiguity in:

- Writing systems (Chinese, Serbian, Kazakh, et al)
- Phonetization variations
- Spelling variations
- Maiden vs. married names

Canonical identifiers help link to external databases

Muammar Gaddafi
Muammar Muhammad Abu Minyar al-Gaddafi
Colonel Gaddafi
Kadhafi
Muʻammar al Qaḍḍāfi
Moammar Al Qadhafi
Qaḍḍāfi
Gadafi
Kadaffi
Al-Khadafy
Gadaffi
Kaddafi
Muammar al–Gaddafi
Jaddafi
Qaddafy
Muammar Gaddafi
Muhamar Gadaffi
Muʻammar al-Qaḍḍafī
Al-Qadhdhaafi

Gadhafi
Qaḍḍafi
Qaḍḍāfī
Muammar Muhammad Abu Minyar al-Gaddafi
Khadafi
Muʻammar al-Qaḍḍāfi
Gaddafi
Muammar el Gadafi
Muamar al-Gaddafi
Muamar al Gaddafi
Muʻammar al Qaḍḍafi
Kadafi
Omar Gadafi
Kaddaffi
Moammar Jaddafi
Muamar Gadafi
Muamar el-Gadafi
Muʻammar al Qaḍḍāfī
Al-Qathafi

Muʻammar al-Qaḍḍafi
Muamar al Gadafi
Moammar Gadafi
Muammar al-Gaddafi
Muhammad Ghadaffi
Muammar el Gaddafi
Muamar al Gaddafhi
Muʻammar al-Qaḍḍāfī
Muʻammar al Qaḍḍafī
Khaddafi
Muammar al Gaddafi
Qaḍḍafī
El Kazzafi
Muhamad Gadafi
Muamar al-Gaddafhi

53 Latinized variations! (May 2017)

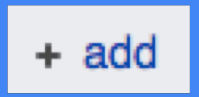
Item
Muammar Gaddafi

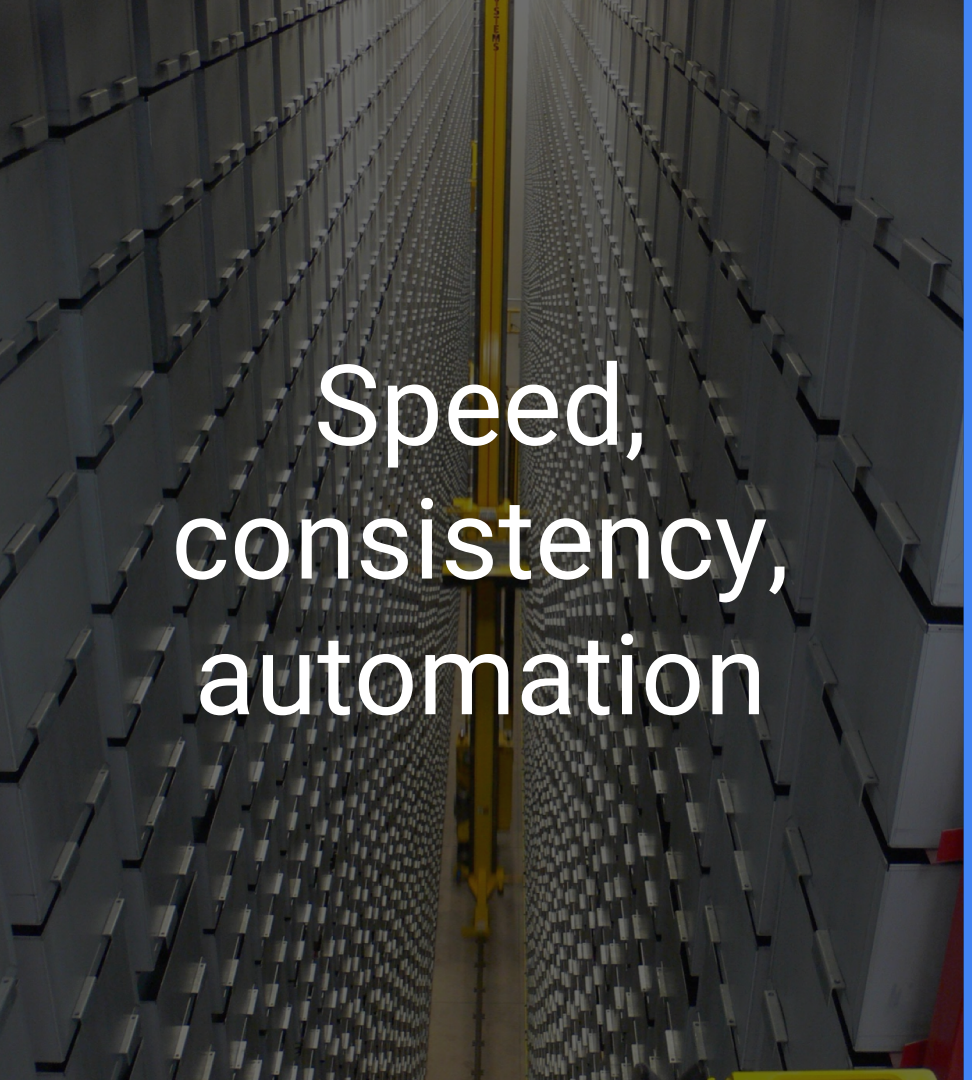
Q19878

Editing Wikidata

Just as with Wikipedia:

Edit button

+add button 



Speed, consistency, automation

Wikidata has more than 52 million items

Simple searches take less than a second

Complex queries supported by open standards like SPARQL

Search example - Find all bicameral legislatures

http://query.wikidata.org

Item	**Property**	**Value**
?	"instance of"	"bicameral legislature"
?	P31	Q189445

```
?legislature wdt:P31 wd:Q189445
```

Wikidata Search - Result from Query

Run | Clear | 148 results in 968 ms

52 million items in less than a second

Display | Download

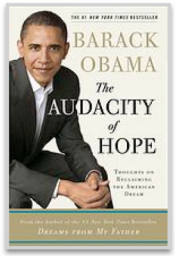
legislature	legislatureLabel	countryLabel
wd:Q7320919	Rhode Island General Assembly	United States of America
wd:Q7700086	Tennessee General Assembly	United States of America
wd:Q7903336	Uttar Pradesh Legislature	India
wd:Q7972258	Washington State Legislature	United States of America
wd:Q7986861	West Virginia Legislature	United States of America
wd:Q10566065	Maryland General Assembly	United States of America
wd:Q14468380	Parliament of Kenya	Kenya
wd:Q15150636	General Assembly of Newfoundland and Labrador	Canada
wd:Q15150769	Legislature of Manitoba	Canada
wd:Q15150880	Legislature of Quebec	Canada

Wikidata items have identifiers - VIAF links back

VIAF
Virtual International Authority File

Search

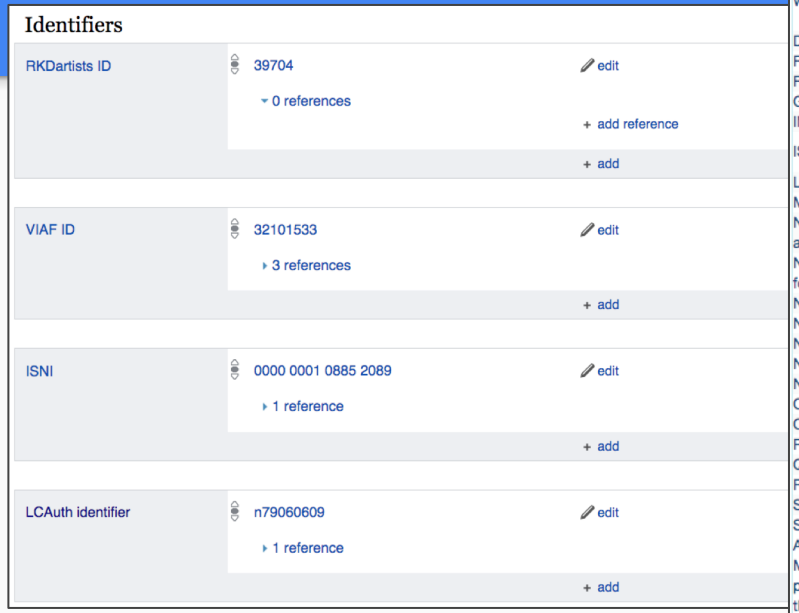
Select Field: | Select Index: All VIAF | Search Terms: | Search



Obama, Barack, 1961-....
Obama, Barack
Barack Obama
Obama, Barack (Barack Husein), 1961-
Obama, Barack 1961 August 4-
أوباما، باراك
אובמה, ברק, 1961-
أوباما، باراك، 1961-
Obama, B. 1961- Barack
Обама, Барак, 1961-
VIAF ID: 52010985 (Personal)
Permalink: http://viaf.org/viaf/52010985
ISNI: 0000 0001 2133 1026

Properties: Identifiers

- Indexes into other databases
- Authority control
- Accession numbers
- Catalog identifiers
- Stable URLs to other sites



Wikidata items have identifiers - links to external databases

Identifiers

VIAF ID	128620508	edit
	0 references	
		+ add reference
		+ add

LCAuth ID	n79006865	edit
	0 references	
		+ add reference
		+ add

Barack Obama (Q76) has more than 83 identifiers!

Some prominent identifiers - links to external databases

WorldCat
VIAF
LC Name Authority File
ISNI
GND (Integrated Authority File)
SUDOC (French universities)
BNF (Bibliotheque France)
MusicBrainz
Bio Directory of Congress
Quora topic ID
C-SPAN person ID
Freebase

NDLAuth ID (National Diet Library of Japan)
SELIBR (National Library of Sweden Libris)
NLA (Australia) ID
NKCR Czech National Authority Database (National Library of Czech Republic)
RSL ID (person) Russian State Library
IMDB
Dutch National Thesaurus for Author names
Declarator.org - Russian non-governmental database with information on the income of government officials
NUKAT - Center of Warsaw

University Library catalog
CiNii (Scholarly and Academic Information Navigator) Japan
NNDB people ID - Notable Names Database
Politifact
Encyclopedia Britannica ID
CONOR ID (Slovenia)
NYT topic ID
Guardian topic ID
Parlement & Politiek ID (Dutch politics site)
Social Networks and Archival Context ID (SNAC)
NARA
California Digital Library
University of Virginia
University of California, Berkeley

OCLC related properties

ID	Label	Description
P2163	FAST ID	authority control identifier in WorldCat's “FAST Linked Data” authority file. Format: up to 8 digits, without zero-padding.
P214	VIAF ID	identifier in the Virtual International Authority File. Format: up to 22 digits
P243	OCLC control number	identifier from the Online Computer Library Center

Wikidata as database of databases

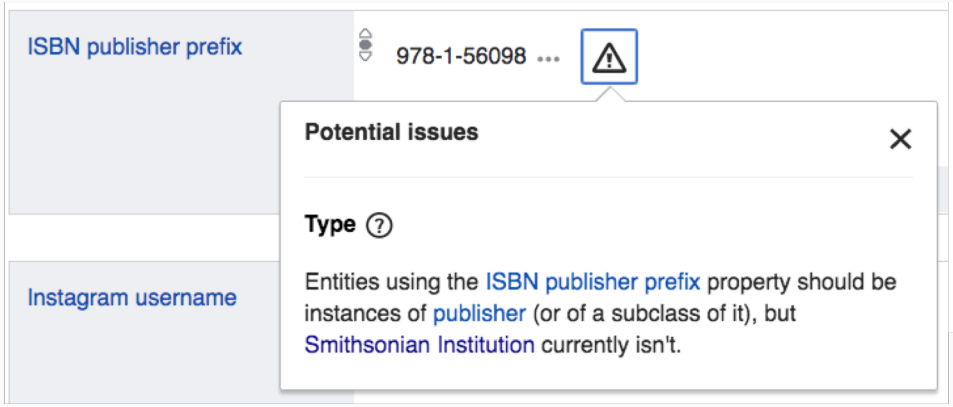
As meta-database, Wikidata doesn't need to hold all the data but can act as a hub for federated searches - search across multiple databases

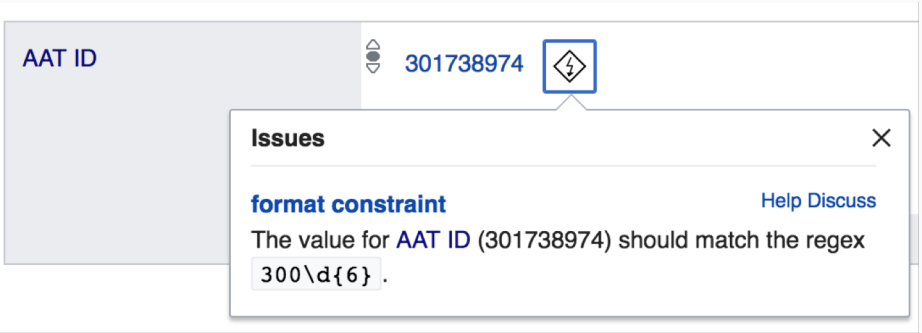
Wikidata has more than 44 SPARQL endpoints in federation:
Europeana, Smithsonian AAM, Getty, Yale Center for British Art, British Museum, et al.

See: SPARQL Federation endpoints

Consistency and bounds checking

Constraint reports/violations provide warnings on logic and bounds





Searching and displaying Wikidata

Querying tools

Presentation

Visualization

APIs and endpoints

Basic search with Wikidata

SPARQL endpoint at query.wikidata.org

Superficially similar to SQL

One of the busiest endpoints on the Internet

https://wikidata.org/wiki/Wikidata:SPARQL_query_service

Basic search with Wikidata

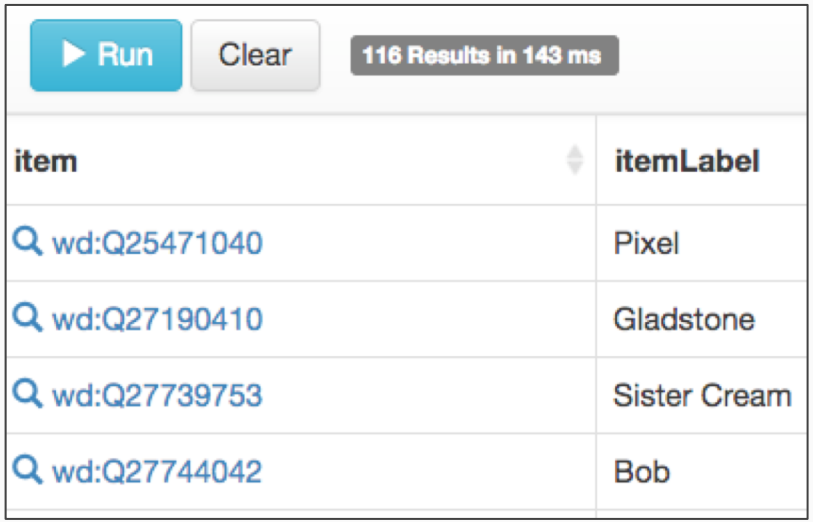
SPARQL is an open standard

Try the "Examples" button for lots of interesting searches

Hint: Don't write queries from scratch. Modify existing ones!

Use auto-complete with CTRL-SPACE (Beware Mac users!)

http://tinyurl.com/y7nvjgm9



Hands On: Run your first Wikidata Query

Visit query.wikidata.org

- Choose "Examples" folder
- Select "Cats"

Or directly click:
http://tinyurl.com/y7nvjgm9

Hit blue triangle button to run!

Advanced search with Wikidata

Statistics, graphs, maps via Wikidata

Discover stories in the data:

Example: Where have members of Congress been educated?

Example: Women authors

List all members of Congress who have ever served and examine where they have been educated

```
?moc wdt:P31 wd:Q5 .       #"instances of" humans

?moc wdt:P1157 ?lcbioid . #LC "Congress Bio ID"

?moc wdt:P69 ?school .     #grab "educated at"

COUNT the occurrences of each school

ORDER them from highest to lowest

LIMIT it to the top 15 results
```

Impact of Wikidata

Google closed their own Freebase project in 2016, in favor of backing Wikidata

Google search results and Knowledge Graph use Wikidata

Schema.org has endorsed using Wikidata

Carla Hayden

American librarian

Carla Diane Hayden is an American librarian and the 14th Librarian of Congress. Hayden is the first woman and the first African American to hold the post. She is the first professional librarian appointed to the post in over 60 years. Wikipedia

Born: August 10, 1952 (age 65 years), Tallahassee, FL

Education: Roosevelt University, University of Chicago, South Shore High School

Parents: Bruce Kennard Hayden, Jr., Colleen Hayden

Profiles

Twitter

Interesting Wikidata tools

Wikidata Query

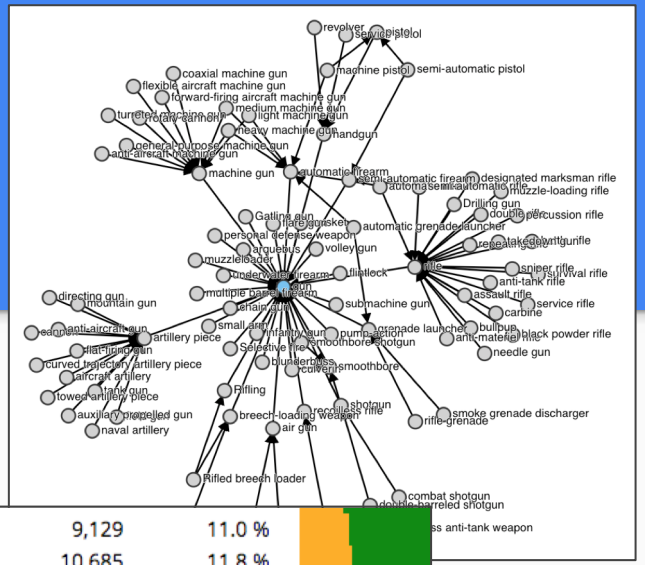
Wikidata Graph Builder

Monumental

Reasonator

Vizquery

Gender Gap Tool



1900 → 1909	82,982	9,129	11.0 %
1910 → 1919	90,300	10,685	11.8 %
1920 → 1929	115,401	14,473	12.5 %
1930 → 1939	119,818	16,093	13.4 %
1940 → 1949	160,235	26,544	16.6 %
1950 → 1959	170,010	32,718	19.2 %
1960 → 1969	170,274	38,063	22.4 %
1970 → 1979	169,691	43,129	25.4 %
1980 → 1989	183,094	48,071	26.3 %
1990 → 1999	87,418	23,331	26.7 %

Wikidata Query: SPARQL endpoint

https://query.wikidata.org/

Try example queries

Reasonator: Nicely formatted Wikidata pages

https://tools.wmflabs.org/reasonator/

Carla Hayden (Q5041065)

Carla Diane Hayden | Carla D. Hayden | Dr. Carla Diane Hayden | Карла Гейден | 卡拉·海登

Librarian of Congress, American librarian

Carla Hayden is a US-American librarian.
She was born on August 10, 1952 in Tallahassee.
She studied at University of Chicago, Roosevelt University, and University of Chicago Graduate Library School. She is/was Librarian of Congress from September 14, 2016 and President of the American Library Association from 2003 until 2004. She is/was a member of American Academy of Arts and Sciences and American Library Association. She worked for Library of Congress, for University of Pittsburgh, and for Enoch Pratt Free Library.

Other properties

employer	University of Pittsburgh public research university located in Pittsburgh, Pennsylvania, United States
	Enoch Pratt Free Library openbare bibliotheek in Baltimore, Verenigde Staten van Amerika
	Library of Congress (de facto) national library of the United States of America
birth name	Carla Diane Hayden [en]
award received	Librarian of the Year Award point in time : 1995
	Joseph W. Lippincott Award point in time : 2013
	Jean E. Coleman Library Outreach Lecture point in time : 2006
	Jean E. Coleman Library Outreach Lecture point in time : 2015
	Newberry Library Award annual award given in recognition of service to the humanities point in time : 2018
ethnic group	African Americans racial or ethnic group in the United States with African ancestry

External sources

Carla Hayden

Freebase	/m/0bmbjwk
GND	1106460634
ISNI	0000 0003 8595 637X
Library of Congress authority	n91918623
NUKAT authorities	n2005113480
Twitter username	LibnOfCongress
VIAF	165048917

Wikimedia projects

Current language Wikipedias	
en	Carla Hayden
Big Wikipedias	
de	Carla Hayden
fr	Carla Hayden
zh	卡拉·海登
Wikimedia Commons	
commons	Category:Carla Hayden
Other Wikipedias	
uk	Карла Гейден

Concept cloud

SQID: Browsing Wikidata entries and linkages

https://tools.wmflabs.org/sqid/

SQID

edit label

Smithsonian Institution (Q131626)

group of museums and research centers administered by the United States government

instance of: Smithsonian Institution is a(n) organization

Statements

Own statements | From related entities

headquarters location	Washington, D.C. (capital city of the United States) country : United States of America (federal republic in North America) coordinate location : (38°53'35" N , 77°1'27" W)
official website	http://www.si.edu/
founded by	James Smithson (British chemist)
	Joel Roberts Poinsett (Politician and diplomat)
	Joseph Henry (American scientist)
inception	1855-08-10
visitors per year	30000000 ★ point in time : 2012
	29000000 point in time : 2011
subsidiary	Cooper Hewitt, Smithsonian Design Museum (museum in New York, New York)
11+4 statements	Smithsonian Astrophysical Observatory
	National Museum of African Art (museum about African Art located in Washington, D.C., United States)
	National Portrait Gallery (art museum in Washington, D.C.)
	Hirshhorn Museum and Sculpture Garden (art museum in Washington, D.C.)
	National Museum of the American Indian (museum in Washington, D.C.)
	Smithsonian Environmental Research Center

Links

- **Wikidata page**
- **Official website**
- **Wikipedia article**
- **Reasonator**

Identifiers

Facebook profile ID	Smithsonian
NLA (Australia) ID	35508508
BAV ID	ADV12211578
Twitter username	smithsonian
Instagram username	smithsonian
NKCR AUT ID	ko2004230768
PTBNP ID	458597
BNE ID	XX145247

SQID: Browsing Wikidata entries and linkages

https://tools.wmflabs.org/sqid/

Statements

Own statements	From related entities
owned by	← Cardinal Mercier (painting by Cecilia Beaux)
collection	← Woodland Glen (painting by Asher B. Durand)
101 statements >	← Louise Howland King (Mrs. Kenyon Cox) (painting by Kenyon Cox)
	← Greenwood Lake (painting by Jasper Francis Cropsey (Smithsonian American Art Museum))
creator	← SAAM person/institution thesaurus (Smithsonian American Art Museum: person/institution thesaurus)
location	← Allee dans le Parc (painting by Alice Pike Barney)
101 statements >	← Blonde Studio Model (painting by Alice Pike Barney)
	← The Brass Kettle (painting by Alice Pike Barney)
maintained by	← Smithsonian American Art Museum: person/institution thesaurus id
exhibition history	← John A. Sutter (painting by Samuel S. Osgood)
	← Resurrection (painting by John La Farge)
	← Fathi Hassan (father of contemporary African painting)
subsidiary	← Smithsonian Institution (group of museums and research centers administered by the United States government)
archives at	← Nam June Paik (American video art pioneer)

Scholia: Stats and context around scholarly sources https://tools.wmflabs.org/scholia/

Scholia Author Work Organization Location Event Award Topic Tools Help

work

The Hallmarks of Cancer (Q221226)

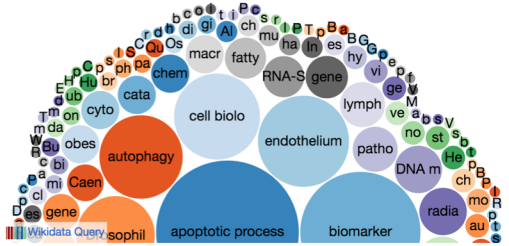
"The Hallmarks of Cancer" is a seminal peer-reviewed article published in the journal Cell in January 2000 by the cancer researchers Douglas Hanahan and Robert Weinberg. The authors believe that the complexity of cancer can be reduced to a small number of underlying principles. The paper argues that all cancers share six common traits ("hallmarks") that govern the transformation of normal cells to cancer (malignant or tumor) cells. ... (from the English Wikipedia)
DOI: 10.1016/S0092-8674(00)81683-9.

Show 10 entries Search:

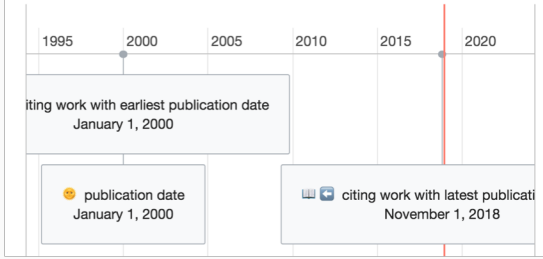
Order	Author	Orcid
1	Douglas Hanahan	orcid-search/quick-search/?searchQuery=Douglas%20Hanahan
2	Robert Weinberg	orcid-search/quick-search/?searchQuery=Robert%20Weinberg

Topic scores

Topics based on a weighting between main subject of work, cited and citing works.



Timeline



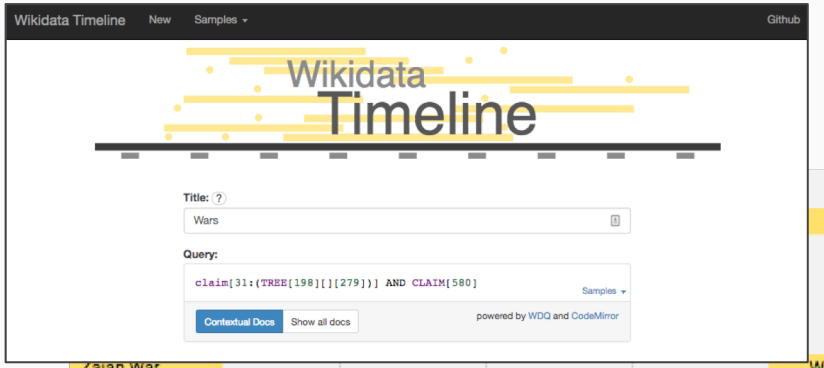
Related works

Related works from co-citation analysis

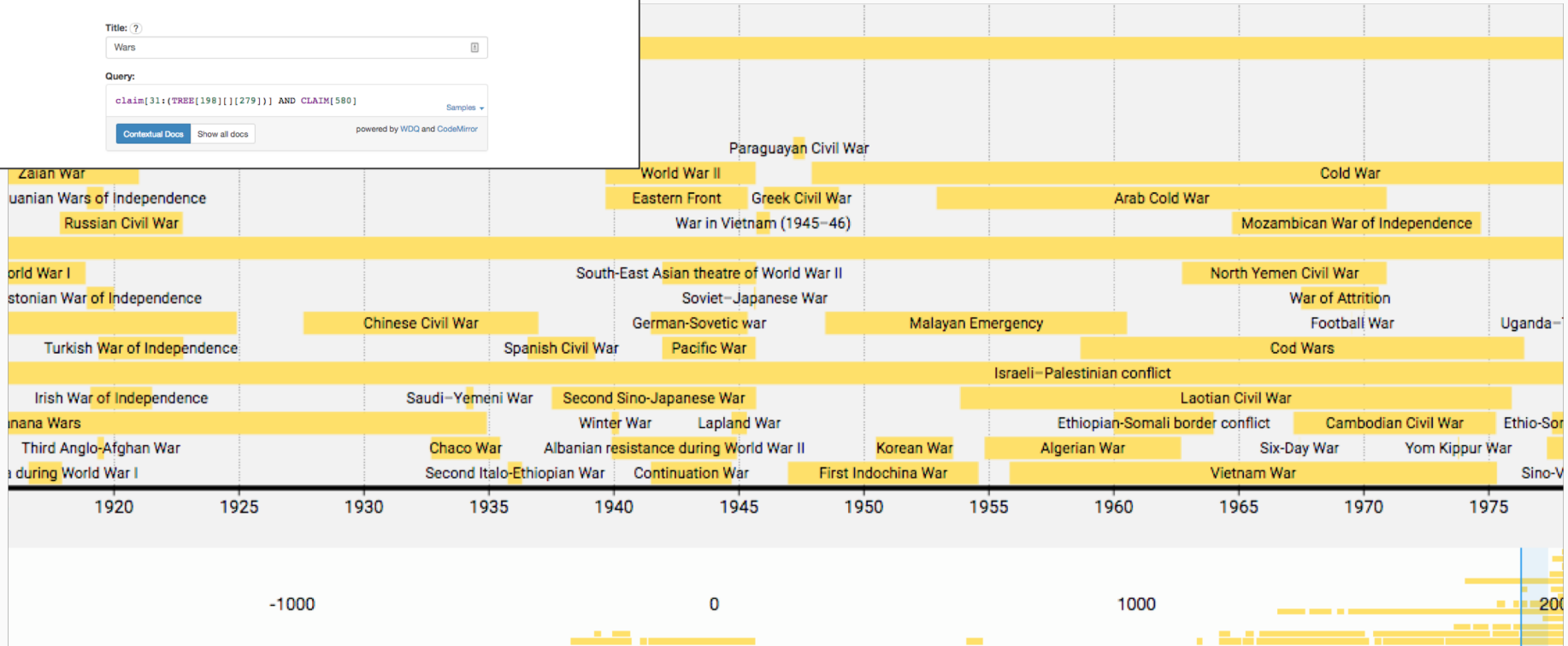
Show 10 entries Search:

Count	Work
267	Inflammation and cancer
108	Core signaling pathways in human pancreatic cancers revealed by global genomic analyses
106	Cancer as an evolutionary and ecological process
104	The phosphatidylinositol 3-Kinase AKT pathway in human cancer
99	The basics of epithelial-mesenchymal transition

Wikidata Timeline: Queries displayed in linear timelines



https://tools.wmflabs.org/wikidata-timeline



Wikidata Distributed Game: click to contribute https://tools.wmflabs.org/wikidata-game/distributed/

The Distributed Game

Available games

This is a list of available games. Games are loaded from different sources, and you can add your own!

African Americans

A game for Black History Month 2017. Set the ethnicity tag for African American people.

Flower Color

Assign flower colors to plants. Due to limitations of the game and quality concerns the Wikidata
disabled for now. So no entries are altered on Wikidata but your decisions are still stored in a sep
learn more visit https://github.com/iimog/wikidata-game-flower-color

Alias candidates

Should this potential alias be added to the Wikidata item corresponding to the article?

Quickstatements: Bulk upload tables in CSV format

https://tools.wmflabs.org/quickstatements

Committee name	Committee Q	instance of	US Cong comm
United States Senate Special Committee on Aging	Q7891353	P31	Q476190
United States Senate Committee on Agriculture, Nutrition and Forestry	Q7891257	P31	Q476190
United States Senate Committee on Appropriations	Q2495418	P31	Q476190
United States Senate Committee on Armed Services	Q508577	P31	Q476190
United States Senate Committee on Banking, Housing, and Urban Affairs	Q7891260	P31	Q476190
United States Senate Committee on the Budget	Q142538	P31	Q476190
United States Senate Committee on Commerce, Science and Transportation	Q2378864	P31	Q476190
United States Senate Committee on Energy and Natural Resources	Q1501315	P31	Q476190
United States Senate Committee on Environment and Public Works	Q2495424	P31	Q476190
United States Senate Select Committee on Ethics	Q7891349	P31	Q476190
United States Senate Committee on Finance	Q2985424	P31	Q476190
United States Senate Committee on Foreign Relations	Q1806257	P31	Q476190
United States Senate Committee on Health, Education, Labor, and Pensions	Q2495438	P31	Q476190
United States Senate Committee on Homeland Security and Governmental Affa	Q1489338	P31	Q476190
United States Senate Committee on Indian Affairs	Q7891269	P31	Q476190
United States Senate Select Committee on Intelligence	Q502239	P31	Q476190
United States Senate Committee on the Judiciary	Q452532	P31	Q476190
International Narcotics Control Caucus	Q6052137	P31	Q476190
United States Senate Committee on Rules and Administration	Q2495431	P31	Q476190
United States Senate Committee on Small Business and Entrepreneurship	Q499076	P31	Q476190

Wikidata Graph Builder: Visualizing relationships

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

WGB

Mode: Forward

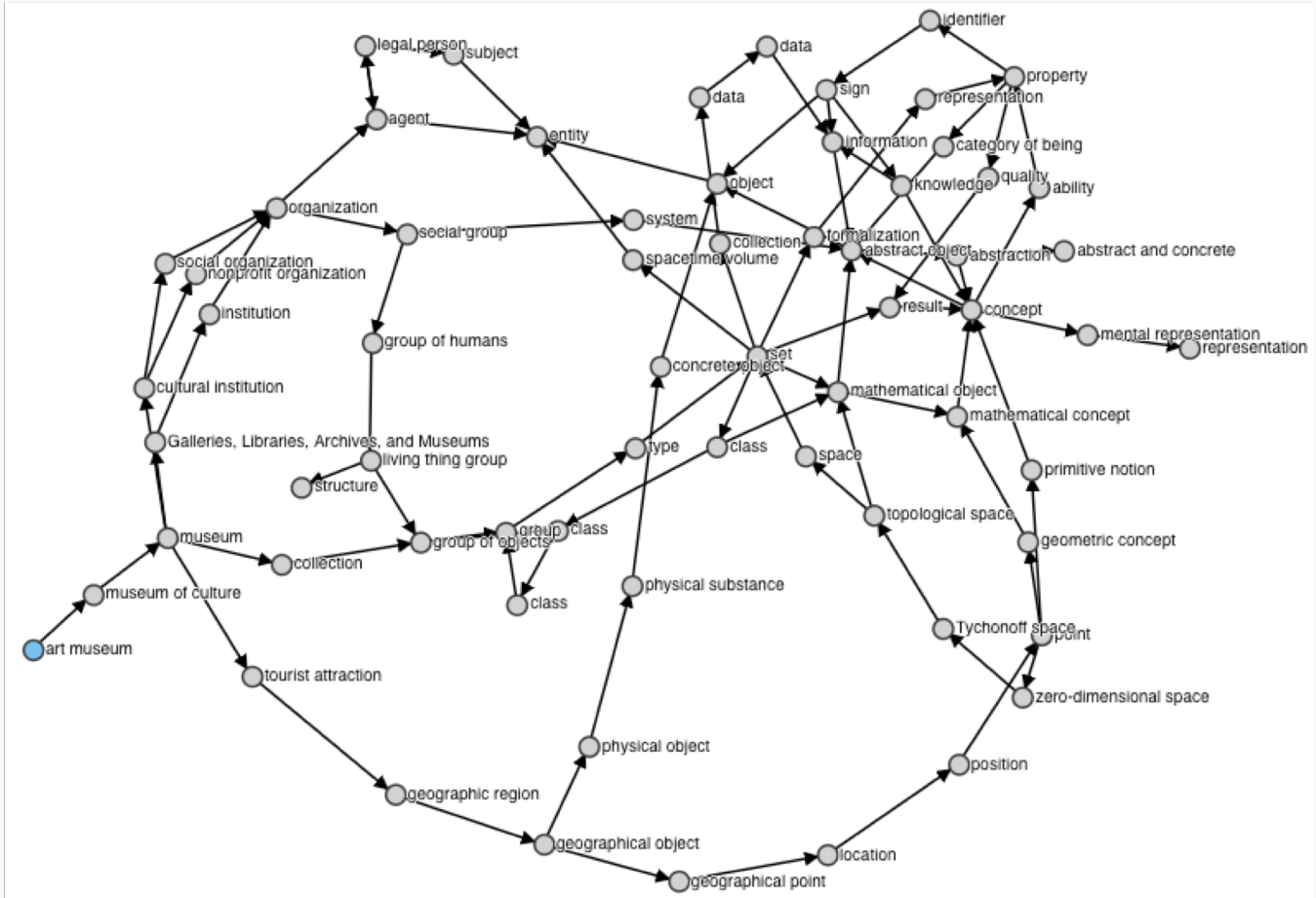
Language: en

Root Item: art museum

Traversal Property: subclass of

Iterations: 0

Limit: 0



Vizquery: Simple Wikidata item selection

https://tools.wmflabs.org/hay/vizquery/

Wikidata VizQuery

Select items where...

?item has a property instance of P31 that is city Q515 — Remove rule

?item has a property head of government P6 that is ?person — Remove rule

?person has a property sex or gender P21 that is female Q6581072 — Remove rule

+ Add rule | Remove all rules

Much simpler way to do queries

Córdoba
city in Andalusia, southern Spain
Q5818 Wikipedia article

Zürich
city in the canton of Zürich, Switzerland
Q72 Wikipedia article

Pardubice
city in the Czech Republic
Q36989 Wikipedia article

Louga
city
Q280243 Wikipedia article

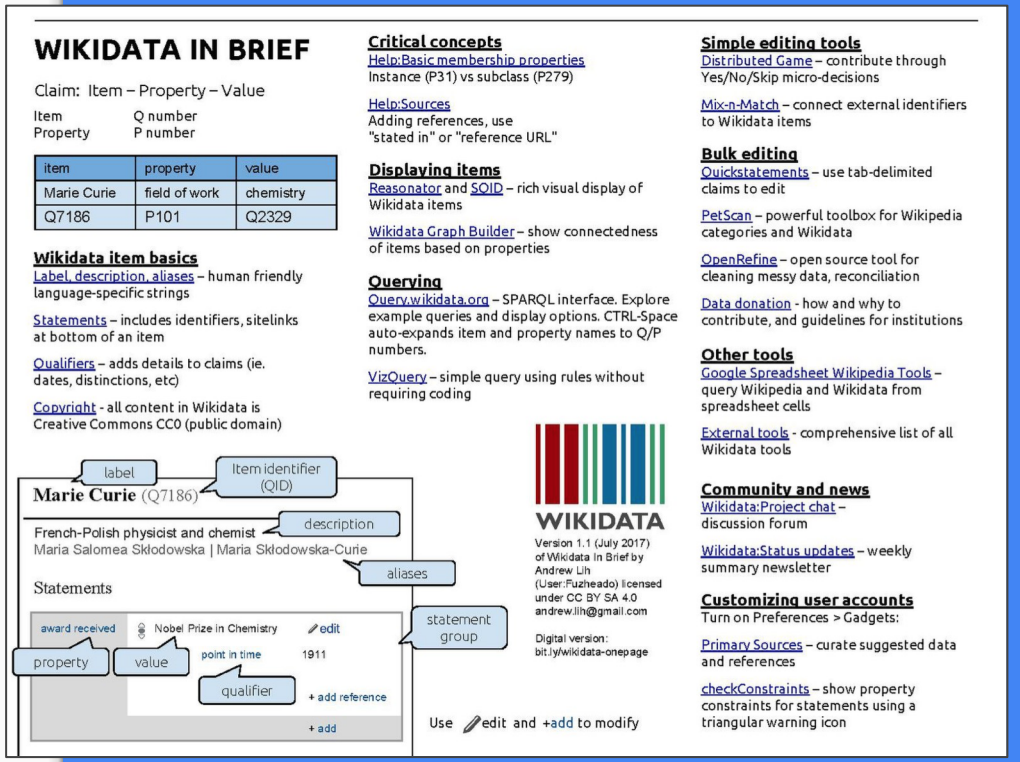
Results 108

Download as CSV

ID	Label	Description
Q5818	Córdoba	city in Andalusia, southern Spain
Q72	Zürich	city in the canton of Zürich, Switzerland
Q36989	Pardubice	city in the Czech Republic
Q280243	Louga	city
Q646620	Estella-Lizarra	town in Navarre, Spain
Q38022	St. Louis	city and port in the U.S. state of Missouri
Q690	Delft	city and municipality in the Netherlands
Q24861	Albany	capital of the state of New York, United States
Q15678	Cáceres	town of Extremadura, Spain
Q2881786	Bambey	stad in Senegal

Wikidata
In one page

http://bit.ly/wikidata-onepage



WIKIDATA IN BRIEF

Claim: Item – Property – Value

Item Q number
Property P number

item	property	value
Marie Curie	field of work	chemistry
Q7186	P101	Q2329

Wikidata item basics

Label, description, aliases – human friendly language-specific strings

Statements – includes identifiers, sitelinks at bottom of an item

Qualifiers – adds details to claims (ie. dates, distinctions, etc)

Copyright - all content in Wikidata is Creative Commons CC0 (public domain)

label
Item identifier (QID)
Marie Curie (Q7186)
French-Polish physicist and chemist
description
Maria Salomea Skłodowska | Maria Skłodowska-Curie
aliases
Statements
statement group
award received
Nobel Prize in Chemistry
edit
property
value
point in time
1911
qualifier
+ add reference
+ add

Critical concepts

Help:Basic membership properties
Instance (P31) vs subclass (P279)

Help:Sources
Adding references, use "stated in" or "reference URL"

Displaying items

Reasonator and SQID – rich visual display of Wikidata items

Wikidata Graph Builder – show connectedness of items based on properties

Querying

Query.wikidata.org – SPARQL interface. Explore example queries and display options. CTRL-Space auto-expands item and property names to Q/P numbers.

VizQuery – simple query using rules without requiring coding

WIKIDATA

Version 1.1 (July 2017) of Wikidata in Brief by Andrew Lih (User:Fuzheado) licensed under CC BY SA 4.0
andrew.lih@gmail.com

Digital version: bit.ly/wikidata-onepage

Use edit and +add to modify

Simple editing tools

Distributed Game – contribute through Yes/No/Skip micro-decisions

Mix-n-Match – connect external identifiers to Wikidata items

Bulk editing

Quickstatements – use tab-delimited claims to edit

PetScan – powerful toolbox for Wikipedia categories and Wikidata

OpenRefine – open source tool for cleaning messy data, reconciliation

Data donation - how and why to contribute, and guidelines for institutions

Other tools

Google Spreadsheet Wikipedia Tools – query Wikipedia and Wikidata from spreadsheet cells

External tools - comprehensive list of all Wikidata tools

Community and news

Wikidata:Project chat – discussion forum

Wikidata:Status updates – weekly summary newsletter

Customizing user accounts

Turn on Preferences > Gadgets:

Primary Sources – curate suggested data and references

checkConstraints – show property constraints for statements using a triangular warning icon