

# **Large Knowledge Graphs**

**Craig Knoblock**

**DSCI-558/CSCI-563**

# **KGs I can Reuse**

Slides from: Jay Pujara, Sameer Singh (<https://kgtutorial.github.io>),  
Pedro Szekely, Mayank Kejriwal  
University of Southern California

# Public Knowledge Graphs

DBpedia

YAGO

WikiData

Freebase

ConceptNet

NELL

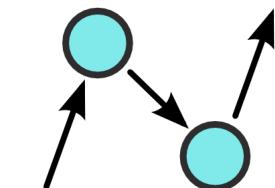
OpenIE



Open Information Extraction

NELL Knowledge Base Browser  
CMU Read the Web Project

The logo for Freebase, featuring the word "Freebase" in a bold, orange sans-serif font next to a stylized orange and red wavy symbol.



# Knowledge Graphs & Industry

## Google Knowledge Graph

Google Knowledge Vault (probabilistic)

## Amazon Product Graph

## Facebook Graph API

## IBM Watson

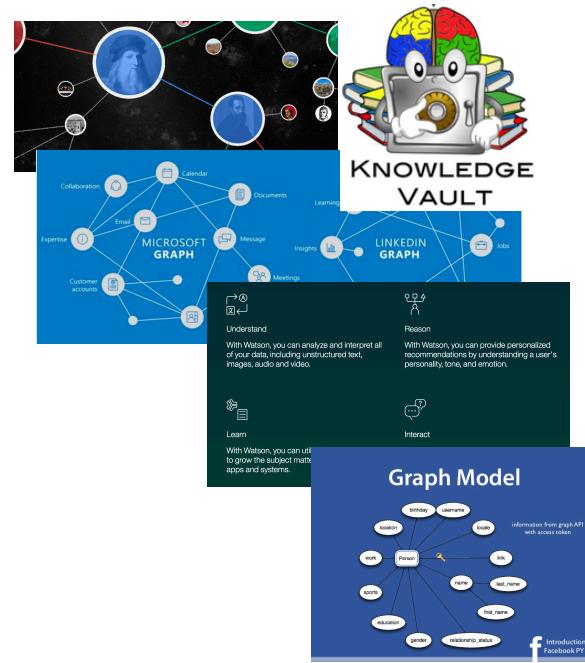
## Microsoft Satori

Project Hanover/Literome (precision medicine)

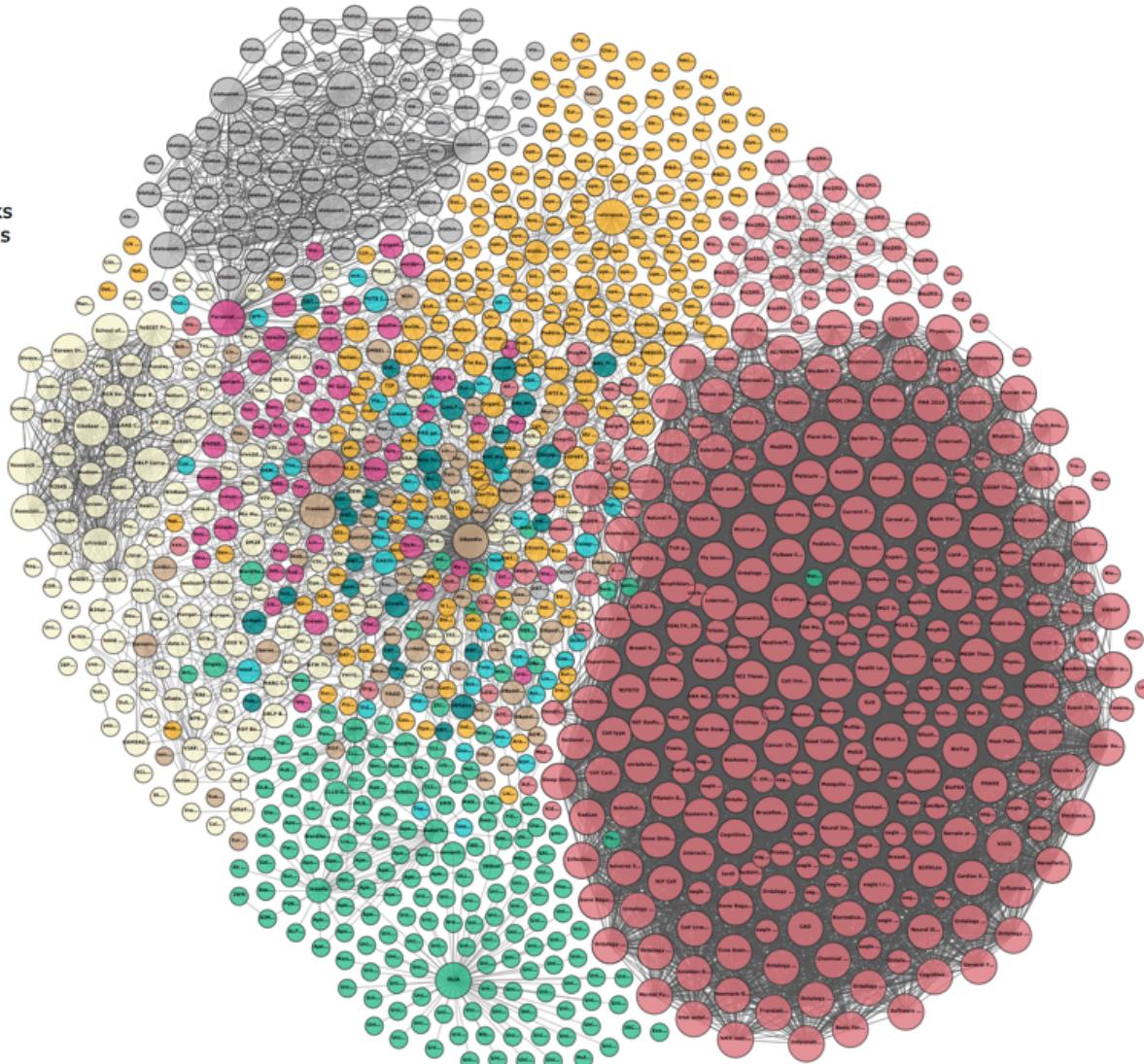
## LinkedIn Knowledge Graph

## New York Times Index

Diffbot, GraphIQ, Maana, ParseHub, Reactor Labs, SpazioDati



Legend	
Cross Domain	
Geography	
Government	
Life Sciences	
Linguistics	
Media	
Publications	
Social Networking	
User Generated	
Incoming Links	—
Outgoing Links	—



Linked  
Open  
Data  
Cloud

# DBpedia

RDF graph derived from Wikipedia Infoboxes and Classes

<http://wiki.dbpedia.org/>

**4.58 million things**

4.22 million are classified in a consistent ontology

**1,445,000 persons**

**735,000 places**

478,000 populated places),

**411,000 creative works**

123,000 music albums, 87,000 films and 19,000 video games

**241,000 organizations**

58,000 companies and 49,000 educational institutions

**251,000 species**

**6,000 diseases**

# Success story



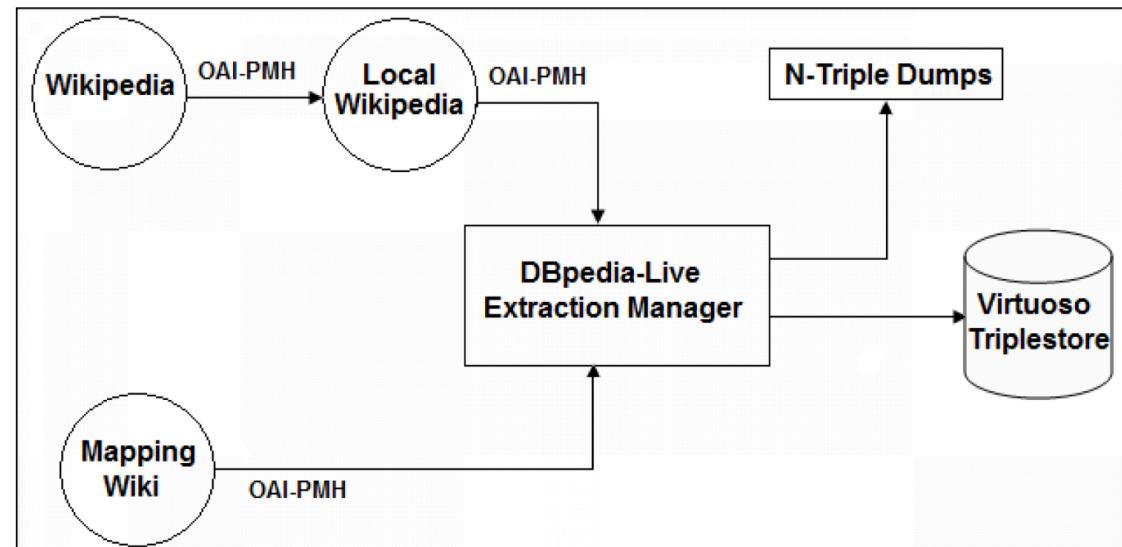
## DBPedia is automatically extracted structured data from Wikipedia

### Wikipedia

17M canonical entities

88M type statements

72M infobox statements



# DBpedia

## **Input:**

Wikipedia infoboxes, structured data

## **Output:**

**KG with 736 entity types, 60K relations, 4.3M entities, 70M facts**

## **License:**

CC-BY-SA 3.0

# YAGO Knowledge Base

<http://www.mpi-inf.mpg.de/departments/databases-and-information-systems/research/yago-naga/yago/downloads>

## Derived from Wikipedia WordNet and GeoNames

10 million entities

120 million assertions

persons, organizations, cities, etc.

## 350,000 classes

many fine grained classes, inferred from the data

# YAGO

## Input:

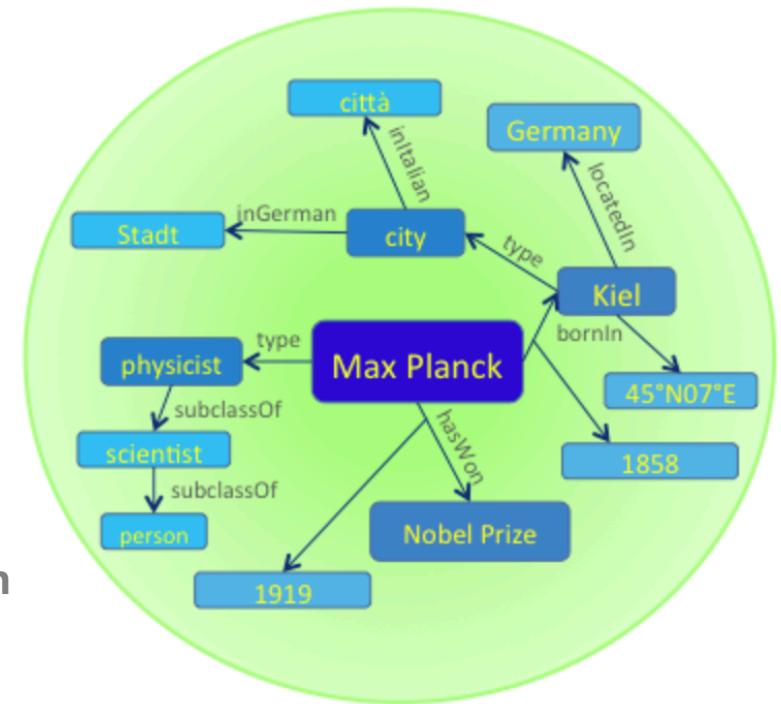
Wikipedia infoboxes, WordNet and GeoNames

## Output:

KG with 350K entity types, 10M entities, 120M facts with temporal and spatial information

## License:

CC-BY-3.0



# Wikidata

The "wikipedia" of data

[https://www.wikidata.org/wiki/Wikidata:Main\\_Page](https://www.wikidata.org/wiki/Wikidata:Main_Page)

## Collaborative, multilingual

collecting structured data to provide support for Wikipedia

**50,431,636 92,491,069 items**

~~757,054,180~~ 1,356,711,248 edits since the project launch

# WikiData

**Input: Crowdsourced human curation**

**Output: KG with 50M entities, 500M facts**

**License: CCO**

# FreeBase

The old WikiData that was the basis of the Google Knowledge Graph  
<https://developers.google.com/freebase/>

**One of the first public KBs/KGs**

**Collaborative contributions from many sources**

**2.4B facts on 44M topics**

**Acquired by Google, used for Google KG, shut down!**

# Freebase

## **Input:**

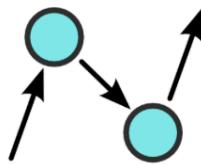
Crowdsourced human data and structured feeds

## **Output:**

KG with 44M entities, 2.4B facts

## **License:**

CC-BY

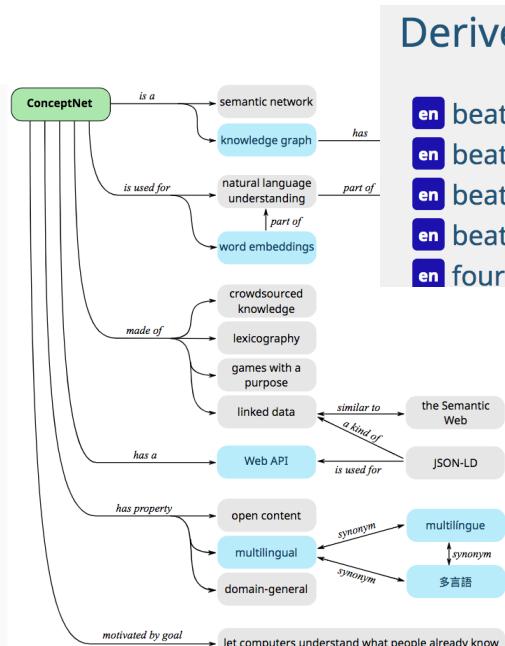


# ConceptNet

An open, multilingual knowledge graph



An English term in ConceptNet 5.5



## Derived terms

- en** beatle →
- en** beatledom →
- en** beatlemania →
- en** beatlesque →
- en** fourth beatle →

## beatles is a type of

- en** a British band →
- en** man (n) →
- en** band (n) →
- en** musician (n) →
- en** album (n) →

## Links to other sites

[dbpedia.org](#) The Beatles →

[sw.opencyc.org](#) Beatle →

[umbel.org](#) Beatle →

[wordnet-rdf.princeton.edu](#) 400520405-N → is term

[wordnet-rdf.princeton.edu](#) 108386847-n →

[wikidata.dbpedia.org](#) Q1299 →

[en.wiktionary.org](#) Beatles →

[dbpedia.org](#) The Beatles (No. 1) →

[wikidata.dbpedia.org](#) Q738260 →

[fr.wiktionary.org](#) Beatles →

[dbpedia.org](#) The Beatles (The Original Studio Recordings) →

[wikidata.dbpedia.org](#) Q603122 →

# ConceptNet

## **Commonsense knowledge base**

### **Key contributions:**

Freely available resource: covers wide range of common sense concepts and relations organized in a easy-to-use semantic network

NLP toolkit based on this resource: supports analogy, text summarization, context dependent inferences

**ConceptNet4 was manually built using inputs from thousands  
of people**

28 million facts expressed in natural language  
spanning 304 different languages

# ConceptNet

## **Input:**

Crowdsourced human data and structured feeds (DBpedia, Wiktionary, WordNet)

## **Output:**

KG with 44M entities, 2.4B facts

## **License:**

CC-BY-SA-4.0

# NELL

An automated AI system that reads the web and learns knowledge <http://rtw.ml.cmu.edu>

## Knowledge Graph created by an IE project

“Never ending learning” paradigm

“Coupled bootstrap learning” to reduce semantic drift

**100M beliefs for 300 types and 2000 properties**

# NELL

## **Input:**

**Clueweb09 corpus (1B web pages)**

## **Ontology:**

~3K predicates, O(100K) constraints between predicates

## **Output:**

100 million candidate facts & 3 million high-confidence facts

## **License:**

No formal license

# OpenIE (ReVerb)

 Open Information Extraction [openie.allenai.org](http://openie.allenai.org) Hosted by  Created at 

Argument 1: entity:The Beatles      Relation:   
Argument 2:  All

all location (21) film location (18) statistical region (16) name source (15) travel destination (14) misc.  
more types ▾

169 answers from 2087 :

- were bigger than Jesus (100)
- came to America (95)
- appeared on **The Ed Sullivan Show** (88)
- broke up in 1970 (56)
- Here Comes the Sun (46)
- came to America (45)
- is for the future (44)
- are a great band (42)
- perform on **The Ed Sullivan Show** (39)
- were **Musical ensemble** (36)

**are a great band** » 

**Extracted Synonyms:**  
were  
is  
was

**Extracted from these sentences:**

- are **The Beatles** are the best band , hands down but Oasis did make a great cover . (via ClueWeb12)
- The Beatles** are a great band . (via ClueWeb12)
- The Beatles** are the best band . (via ClueWeb12)
- The Beatles** are the greatest band ... Started 1 month ago by georgedcc Yeah , Songs in the Key of Life is a bit much for 1 listen . (via ClueWeb12)
- The Beatles** , arguably , are the greatest band , and may or may not have the greatest name . (via ClueWeb12)
- The point is , from my view , **The Beatles** are a good band , but way behind the greatest artists to ever grace rock . (via ClueWeb12)

## Key contributions:

No need for human defined relation schemas

First ever successful open-source open domain IE system

# OpenIE

## **Input:**

Clueweb09 corpus (1B web pages)

## **Output:**

5B extractions including 15M high-precision extractions

## **License:**

No formal license

# Other Knowledge Graphs

## Internet Movie Firearms Database

Firearms used or featured in movies, television shows, video games, and anime  
22,159 articles, extensive coverage and ontology

<http://www.imfdb.org/wiki/Category:Gun>

## Microsoft Satori

Large knowledge graph similar to Google KG, e.g., 1.8 million bottles of wine  
Many streaming channels of real-time data, e.g., bitcoin, transportation, ...  
<https://www.satori.com/>

## LinkedIn Knowledge Graph

450M members, 190M historical job listings, 9M companies, 28K schools,  
1.5K fields of study, 600+ degrees, 24K titles and 35K skills in 19 languages  
<https://engineering.linkedin.com/blog/2016/10/building-the-linkedin-knowledge-graph>

# Introduction to Wikidata

Pedro Szekely

USC Information Sciences Institute

Feb 5, 2020

Based on slides written by Pedro Szekely and Daniel Garijo for the Wikidata tutorial presented at K-CAP 2019

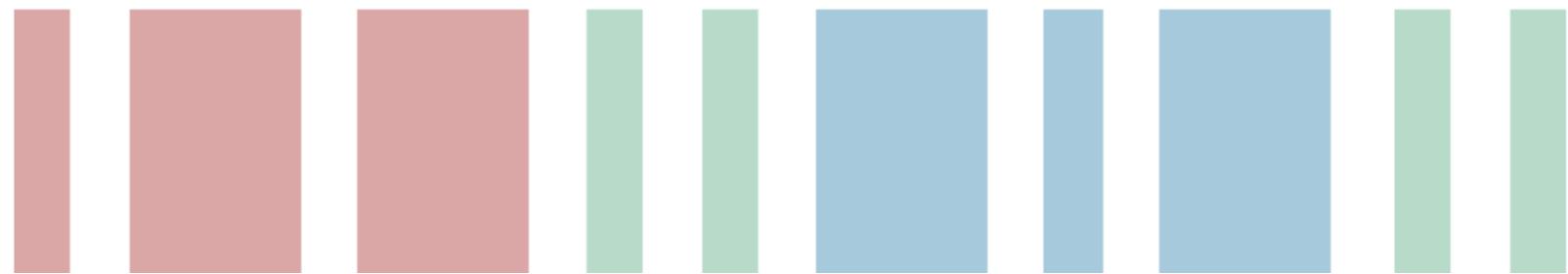
# **Introduction To Wikidata**

**Goals of the Wikidata project**

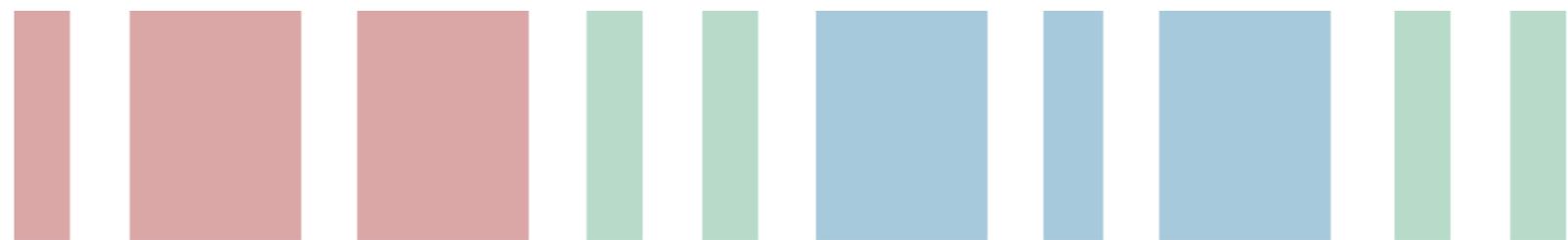
**The Wikidata data model**

**Comparison with DBpedia, YAGO and Cyc**

**Interesting statistics about Wikidata**



# Goals of the Wikidata Project



# WIKIDATA

**Wikidata** is a free, collaborative, multilingual, secondary database, collecting structured data to provide support for Wikipedia, Wikimedia Commons, the other wikis of the Wikimedia movement, and to anyone in the world.

<https://www.wikidata.org/wiki/Wikidata:Introduction>

# Free

The data in Wikidata is published under the [Creative Commons Public Domain Dedication 1.0](#).

# Collaborative

Data is entered and maintained by Wikidata editors, who decide on the rules of content creation and management. Automated [bots](#) also enter data into Wikidata.

# Multilingual

Editing, consuming, browsing, and reusing the data is fully multilingual. Data entered in any language is immediately available in all other languages.

# A secondary database

Wikidata records not just statements, but also their sources, and connections to other databases.

# Collecting structured data

Imposing a high degree of structured organization allows for easy reuse of data by Wikimedia projects and third parties, and enables computers to process and “understand” it.

# Support for Wikimedia wikis

Wikidata assists Wikipedia with more easily maintainable information boxes and links to other languages.

# Anyone in the world

Anyone can use Wikidata for any number of different ways by using its application programming interface, *the SPARQL endpoint and the JSON and RDF dumps*.

# Why I ❤️ Wikidata



# Marina del Rey (Q988140)

census designated place

## Statements

Own statements		From related entities
area	3.767749 square kilometre	
population	8866 point in time : 2010	
elevation above sea level	0 metre	
located in time zone	Pacific Time Zone (time zone in North America)  UTC-07:00 (Identifier for a time offset from UTC of -7) valid in period : daylight saving time (practice of advancing clocks so that evenings have more daylight and mornings have less)  UTC-08:00 (Identifier for a time offset from UTC of -8) valid in period : standard time (synchronization of clocks within a geographical area or region)	
coordinate location	(33°58'45" N , 118°27'10" W)	
located in the administrative territorial entity	Los Angeles County (county in California, United States of America)	
country	United States of America (federal republic in North America)	

## Media

page banner	Marina del Rey banner.jpg ↗
locator map image	LA County Incorporated Areas Marina del Rey highlighted.svg ↗
Commons category	Marina del Rey, California ↗
image	Marina Del Rey Looking South.jpg ↗

## Wikimedia Categories and Portals

Own statements		From related entities
category of associated people	Category:People from Marina del Rey, California (Wikimedia category)	
category for people born here	Q21000701 (Wikimedia category)	
category for people who died here	Q21000703 (Wikimedia category)	
topic's main category	Category:Marina del Rey, California (Wikimedia category)	
Commons category	Marina del Rey, California ↗	



## Marina del Rey (Q9881)

census designated place

# Good data, and lots of it



### Statements

#### Own statements

#### From related entities

<b>area</b>	3.767749 square kilometre
<b>population</b>	8866 point in time : 2010
<b>elevation above sea level</b>	0 metre
<b>located in time zone</b>	Pacific Time Zone (time zone in North America)  UTC-07:00 (Identifier for a time offset from UTC of -7) valid in period : daylight saving time (practice of advancing clocks so that evenings have more daylight and mornings have less)  UTC-08:00 (Identifier for a time offset from UTC of -8) valid in period : standard time (synchronization of clocks within a geographical area or region)
<b>coordinate location</b>	(33°58'45" N , 118°27'10" W)
<b>located in the administrative territorial entity</b>	Los Angeles County (county in California, United States of America)
<b>country</b>	United States of America (federal republic in North America)

# qualifiers

### Media

<b>page banner</b>	Marina del Rey banner.jpg ↗
<b>locator map image</b>	LA County Incorporated Areas Marina del Rey highlighted.svg ↗
<b>Commons category</b>	Marina del Rey, California ↗
<b>image</b>	Marina Del Rey Looking South.jpg ↗

### Wikimedia Categories and Portals

#### Own statements

#### From related entities

<b>category of associated people</b>	Category:People from Marina del Rey, California (Wikimedia category)
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<b>category for people who died here</b>	Q21000703 (Wikimedia category)
<b>topic's main category</b>	Category:Marina del Rey, California (Wikimedia category)
<b>Commons category</b>	Marina del Rey, California ↗

### Links

[Wikidata page](#)

[Wikipedia article](#)

[Reasonator](#)

### Identifiers

<b>MusicBrainz area ID</b>	2a24c2...3f0fd ↗
<b>archINFORM location ID</b>	16300 ↗
<b>DMOZ ID</b>	Region...L_Rey/ ↗
<b>FIPS 55-3 (locations in the US)</b>	06-45806 ↗
<b>WOEID</b>	2445713 ↗
<b>Who's on First ID</b>	85928367 ↗
<b>Freebase ID</b>	/m/01zhsqk ↗
<b>Library of Congress authority ID</b>	n81081018 ↗
<b>VIAF ID</b>	247815515 ↗
<b>GND ID</b>	4418951-5 ↗
<b>GNIS ID</b>	1852255 ↗
<b>GeoNames ID</b>	5370542 ↗

# identifiers

# Kristabel Doebel-Hickok (Q19757547)

American bicycle racer

**instance of:** Kristabel Doebel-Hickok is a(n) human

Statements	
	Own statements
<b>member of sports team</b>	<a href="#">Rally Cycling</a> (United States women's cycling team) start time : 2019
	<a href="#">Cylance Pro Cycling</a> (United States women's cycling team) start time : 2016 end time : 2018
	<a href="#">Team TIBCO</a> (women's cycling team) start time : 2014 end time : 2015
<b>sport</b>	<a href="#">cycle sport</a> (competitive physical activity using bicycles)
<b>country of citizenship</b>	<a href="#">United States of America</a> (federal republic in North America)
<b>place of birth</b>	<a href="#">Marina del Rey</a> (census designated place)
<b>date of birth</b>	1989-04-28
<b>occupation</b>	<a href="#">sport cyclist</a> (someone who competes in the sport of cycling)
<b>sex or gender</b>	<a href="#">female</a> (human gender (use with P21))

Media	
	image
	<a href="#">Krista Doebel-Hickok, Giro Rosa 2016.jpg</a> media legend : Au Tour d'Italie 2016 [fr]



Links	
<a href="#">Wikidata page</a>	
<a href="#">Wikipedia article</a>	
<a href="#">Reasonator</a>	

Identifiers	
<a href="#">ProCyclingStats</a>	179437 ↗ cyclist ID
<a href="#">Cycling</a>	98235 ↗ Archives cyclist ID
<a href="#">CQ Ranking</a>	7931 ↗ female cyclist ID

# Kristabel Doebele-Hickok

American bicycle racer

**instance of:** Kristabel Doebele-Hickok is a

## Statements

### Own statements

**member of sports team**

Rally start

Cylance Pro Cycling  
start  
end time

Team  
start  
end time

**sport**

cycling

**country of citizenship**

United States

**place of birth**

Marin County, California

**date of birth**

1989-04-28

**occupation**

sportsperson

**sex or gender**

female

## Media

**image**

Kristabel Doebele-Hickok  
media

## About: Kristabel Doebele-Hickok

An Entity of Type : cyclist, from Named Graph : <http://dbpedia.org>, within Data Space : dbpedia.org

Kristabel Doebele-Hickok (born April 28, 1989) is an American professional racing cyclist. She rides for Cylance Pro Cycling.

### Property

### Value

dbo:abstract	<ul style="list-style-type: none"> <li>Kristabel Doebele-Hickok (born April 28, 1989) is an American professional racing cyclist. She rides for Cylance Pro Cycling. (en)</li> </ul>
dbo:birthDate	<ul style="list-style-type: none"> <li>1989-04-28 (xsd:date)</li> <li>1989-4-28</li> </ul>
dbo:thumbnail	<ul style="list-style-type: none"> <li>wiki-commons:SpecialFilePath/Krista_Doebel-Hickok,_Giro_Rosa_2016.jpg?width=300</li> </ul>
dbo:wikiPageID	<ul style="list-style-type: none"> <li>46226373 (xsd:integer)</li> </ul>
dbo:wikiPageRevisionID	<ul style="list-style-type: none"> <li>729299224 (xsd:integer)</li> </ul>
dbo:caption	<ul style="list-style-type: none"> <li>Kristabel Doebele-Hickok during the Giro Rosa 2016</li> </ul>
dbo:role	<ul style="list-style-type: none"> <li>Rider</li> </ul>
dct:description	<ul style="list-style-type: none"> <li>American bicycle racer (en)</li> </ul>
dct:subject	<ul style="list-style-type: none"> <li>dbc:1989_births</li> <li>dbc:Living_people</li> <li>dbc:Place_of_birth_missing_(living_people)</li> <li>dbc:American_female_cyclists</li> </ul>
<a href="http://purl.org/linguistics/gold/hypernym">http://purl.org/linguistics/gold/hypernym</a>	<ul style="list-style-type: none"> <li>dbr:Cyclist</li> </ul>
rdf:type	<ul style="list-style-type: none"> <li>owl:Thing</li> <li>foaf:Person</li> <li>dbo:Person</li> <li>dut:Agent</li> <li>dut:NaturalPerson</li> <li>wikidata:Q215627</li> <li>wikidata:Q24229398</li> <li>wikidata:Q5</li> <li>dbo:Agent</li> <li>dbo:Athlete</li> <li>dbo:Cyclist</li> <li>schema:Person</li> </ul>
rdfs:comment	<ul style="list-style-type: none"> <li>Kristabel Doebele-Hickok (born April 28, 1989) is an American professional racing cyclist. She rides for Cylance Pro Cycling. (en)</li> </ul>
rdfs:label	<ul style="list-style-type: none"> <li>Kristabel Doebele-Hickok (en)</li> </ul>
owl:sameAs	<ul style="list-style-type: none"> <li>freebase:Kristabel Doebele-Hickok</li> <li>wikidata:Kristabel Doebele-Hickok</li> <li>dbpedia-fr:Kristabel Doebele-Hickok</li> <li>dbpedia-wikidata:Kristabel Doebele-Hickok</li> </ul>
prov:wasDerivedFrom	<ul style="list-style-type: none"> <li>wikipedia-en:Kristabel_Doebel-Hickok?oldid=729299224</li> </ul>
foaf:depiction	<ul style="list-style-type: none"> <li>wiki-commons:SpecialFilePath/Krista_Doebel-Hickok,_Giro_Rosa_2016.jpg</li> </ul>
foaf:gender	<ul style="list-style-type: none"> <li>female (en)</li> </ul>
foaf:isPrimaryTopicOf	<ul style="list-style-type: none"> <li>wikipedia-en:Kristabel_Doebel-Hickok</li> </ul>
foaf:name	<ul style="list-style-type: none"> <li>Kristabel Doebele-Hickok (en)</li> </ul>
Is dbo:wikiPageRedirects of	<ul style="list-style-type: none"> <li>dbr:Kristabel_Doebel_Hickok</li> <li>dbr:Kristabel_Hickok</li> <li>dbr:Krista_Doebel-Hickok</li> </ul>
Is foaf:primaryTopic of	<ul style="list-style-type: none"> <li>wikipedia-en:Kristabel_Doebel-Hickok</li> </ul>

no identifiers



## Links

[Wikidata page](#)

[Wikimedia article](#)

[Reasonator](#)

## Identifiers

[ProCyclingStats](#) 179437 ↗

[Cyclist ID](#)

[Cycling](#) 98235 ↗

[Archives cyclist](#)

[Q Ranking](#) 7931 ↗

[Female cyclist](#)

by [Wikidata Toolkit](#) & [Wikidata SPARQL Query](#)

# cycle sport (Q2215841)

bicycle sport | bike sport | cycling sport | sport cycling | sports cycling | cycling sports  
competitive physical activity using bicycles

subclass of:

instance of: cycle sport is a(n) type of sport



## Instances

Direct instances 2  
[Q65246005](#), [Q11953089](#)

All instances 865

Typical Properties stage classification, general classification of race participants, destination point, ProCyclingStats race ID, cumulative elevation gain, event distance, start point, teams classification by points, combination classification, series ordinal, teams classification by time, young rider classification, Cycling Archives race ID, points classification, CQ Ranking men's race ID,

## Classification

### Direct superclasses

### Direct subclasses

With instances 6

With subclasses 6

All 16

road bicycle racing 818, time trial 31, track cycling 6, cyclo-cross 3, bicycle touring 3, mountain biking 2

### All subclasses

44

# rich ontology

## Statements

### Own statements

### From related entities

practiced by sport cyclist (someone who competes in the sport of cycling)

uses bicycle (pedal-driven two-wheel vehicle)

different from cycling (riding a bicycle)

# a bit of commonsense knowledge

## Media

Commons category [Cycling \(sport\)](#)

image [Petacchi MSR 2005.jpg](#)

## Wikimedia Categories and Portals

### Own statements

### From related entities

topic's main Wikimedia portal [Portal:Cycling](#) (Wikimedia portal)

topic's main category [Category:Cycle sport](#) (Wikimedia category)

Commons category [Cycling \(sport\)](#)

## Links

[Wikidata page](#)

[Wikipedia article](#)

[Reasonator](#)

## Identifiers

Klexikon article [Radsport](#)

ID STW Thesaurus 29830-0  
for Economics mapping relation type : exact  
match (SKOS mapping relation (for use with P4390): two concepts have equivalent meaning, and the link can be exploited across a wide range of applications and schemes. The link is meant to be transitive.)

Encyclopædia Universalis ID [sport...clisme](#)

Great Russian Encyclopedia Online ID 1906129

Encyclopædia Britannica Online ID [topic/cycling](#)

Iconclass notation 43C2132

BabelNet ID 00010253n

OSM tag or key Tag:sp...cycling

NE.se ID cykelsport

GND ID 4125280-9

Uppslagsverket Cykelsport

Finland ID

# external identifiers

Language	Label	Description	Also known as
English	Marina del Rey	census designated place	
Spanish	Marina del Rey	lugar de California	
Traditional Chinese	洛杉磯縣 (卡利福尼亞州)	No description defined	瑪麗安德爾灣 瑪麗安德爾灣 (加州)
Chinese	馬里納戴爾雷伊	No description defined	瑪瑞娜戴爾瑞
Catalan	Marina del Rey	No description defined	
Cebuano	Marina del Rey	No description defined	
Czech	Marina del Rey	obec v Los Angeles County, Kalifornie	
Danish	Marina del Rey	No description defined	
German	Marina del Rey	Census-designated place im US-Bundesstaat Kalifornien	Marina del Rey, CA
Basque	Marina del Rey (Kalifornia)	No description defined	
Persian	مارینا دل ری، کالیفرنیا	No description defined	
French	Marina Del Rey	census-designated place	
Hebrew	מַרִינָה דֶל רֵי	No description defined	
Croatian	Marina del Rey (Kalifornija)	No description defined	
Italian	Marina del Rey	census-designated place statunitense della California	
Japanese	マリナ・デル・レイ	No description defined	マリナデルレイ
Korean	마리나델레이	No description defined	
Latin	Marina Del Rey	No description defined	
Malagasy	Marina del Rey	No description defined	
Min Nan Chinese	Marina del Rey	No description defined	
Norwegian Bokmål	Marina del Rey	No description defined	
Newari	मारिना डेल रे, क्यालिफोर्निया	No description defined	मारिना डेल रे (क्यालिफोर्निया)
Dutch	Marina del Rey	plaats in Los Angeles County	
Polish	Marina del Rey	No description defined	
Portuguese	Marina del Rey	No description defined	
Romanian	Marina del Rey	loc desemnat pentru recensământ	
Russian	Марина-дель-Рей	No description defined	
Serbo-Croatian	Marina del Rey	No description defined	
Serbian	Марина дел Реј	No description defined	
Swedish	Marina del Rey	No description defined	
Swahili	Marina del Rey	No description defined	Mdr
Ukrainian	Марина-дель-Рей	переписна місцевість, США, штат California	
Volapük	Marina del Rey	No description defined	
Waray	Marina del Rey, California	No description defined	
Chinese (China)	洛杉矶县 (卡利福尼亞州)	No description defined	玛丽安德尔湾
Simplified Chinese	玛丽安德尔湾	No description defined	玛丽安德尔湾 (加州)

cycle sport (Q2215841)

competitive physical activity using bicycles  
bicycle sport | bike sport | cycling sport | sport cycling | sports cycling | cycling sports

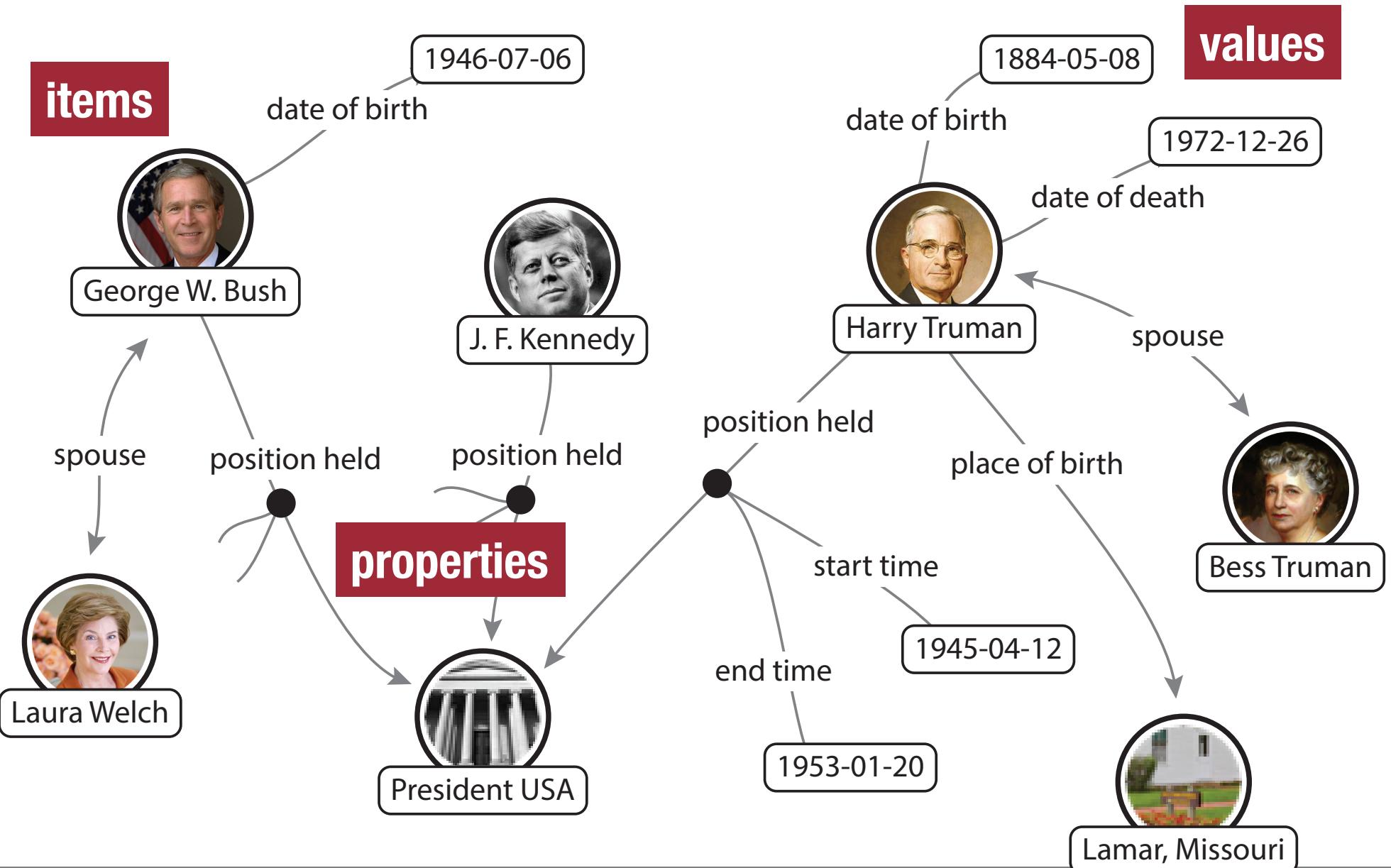
&lt; In more languages

Language	Label	Description	Also known as
English	cycle sport	competitive physical activity using bicycles	bicycle sport bike sport cycling sport sport cycling sports cycling cycling sports
Spanish	ciclismo de competición	competencia deportiva en donde se usan bicicletas	ciclismo de competición
Traditional Chinese	自行車運動	No description defined	
Chinese	自行車運動	體育競技	體育競賽 單車運動 自由車 自行車
Arabic	سباق الدراجات المائية	No description defined	
Asturian	ciclismu de competición	competición deportiva onde s'usen bicicletes	deporte ciclista ciclismo deportivo
Azerbaijani	velosped idmanı	No description defined	
Belarusian	Веласпор	No description defined	
Belarusian (Taraškevica orthography)	рэспублікі спорт	No description defined	вялеспорт
Catalan	ciclisme de competició	Esport	
Central Kurdish	پاسکل سواری	No description defined	
Czech	sportovní cyklistika	sport používající bicykly	cyklosport závodní cyklistika
Welsh	chwaraeon seiclo	No description defined	
Danish	cykelsport	No description defined	
German	Radsport	Sportart, die mit dem Fahrrad ausgeführt wird	Velosport
Swiss High German	Radsport	No description defined	
Greek	ποδηλασία	άθληση	
Canadian English	Bicycle racing	No description defined	
British English	Bicycle racing	No description defined	
Español	bicicleta sport	No description defined	
Estonian	jaigratasport	No description defined	
Basque	txirrindularitza	No description defined	
Persian	فقطیت بندی رفاقتی با استفاده از دوچرخه	دیدار دوچرخه‌سواری	
Finnish	kilpapyöräily	palkuryörän ajamista kilpaa	
French	cyclisme	sport de course à vélo	cyclisme sportif sport cycliste cyclisme de compétition
Western Frisian	Hurdyse	No description defined	
Irish	spórt rothaochta	No description defined	
Hebrew	רֵסֶן יְהוּדִים	No description defined	
Hungarian	kerékpársport	No description defined	
Armenian	Վայսկային սպորտ	No description defined	Համամասնակրո
Interlingue	Ciclistura	No description defined	
Italian	ciclismo	sport in cui si utilizza la bicicletta	
Japanese	自転車競技	No description defined	
Kalmyk	Czzcc sau aleyya	No description defined	
Kazakh	Беконоджы спортты	No description defined	
Korean	자전거 팀 대회 세션 거리는 운동 경기이다	자전거 팀 대회 세션 거리는 운동 경기이다	
Kyrgyz	Беконоджы спорттук түрү	No description defined	
Luxembourgish	Vélosport	Sport dee mam Vélo gemaach gëtt	
Limburgish	Fietsrenne	No description defined	
Lithuanian	Dviračių sportas	No description defined	
Latvian	niebraukslīšanas sports	No description defined	
Macedonian	велосипедски спорт	No description defined	
Marathi	गांधीजी	No description defined	
Min Nan Chinese	Thih-bei keng-chau	No description defined	
Norwegian Bokmål	sykling	sport	sykkelSport
Low German	Radsport	No description defined	
Low Saxon	Wielrennen (sport)	No description defined	
Dutch	wielersport	No description defined	wielrennen
Norwegian Nynorsk	syking	No description defined	sykkelSport
Occitan	ciclistura	No description defined	
Polish	wyczyn kolarskie	No description defined	
Portuguese	ciclismo de competição	No description defined	competição de ciclismo
Russian	велосипедный спорт	спортивные состязания на велосипедах	спорт на велосипедах велоспорт
Slovak	športová cyklistika	druh športu, pri ktorom sa používajú bicykle	
Slovenian	športno kolesarstvo	No description defined	
Albanian	çiklizësi	aktivitet fizik konkurrancë duke përdorur biçikleta	sportçiklizmi
Serbian	биколични спорт	No description defined	
Swedish	cykelsport	fysiska träningsaktiviteter med cyklar	
Tamil	மினையூ புள்ளியூத்	மினையூ புள்ளியூத் என்று அழைகின்ற விளையாட்டு	
Thai	กีฬาจักรยาน	No description defined	
Turkish	bisiklet sporları	bisiklet kullanılarak rekreatif edilen fiziksel aktivite	
Tatar	Велосипед спорты	No description defined	
Ukrainian	велосипедні види спорту	спортивні змагання на велосипедах	велоспорт
Uzbek	Velosiped sporti	No description defined	
Venetian	Xiclistura	No description defined	
Vietnamese	xe đạp thể thao	No description defined	đua xe thể thao dưa xe đạp
Chinese (China)	自行车运动	No description defined	
Simplified Chinese	自行车运动	No description defined	
Chinese (Hong Kong)	單車運動	No description defined	
Chinese (Macau)	單車運動	No description defined	
Chinese (Malaysia)	自行车运动	No description defined	
Chinese (Singapore)	自行车运动	No description defined	
Chinese (Taiwan)	自由速度	No description defined	

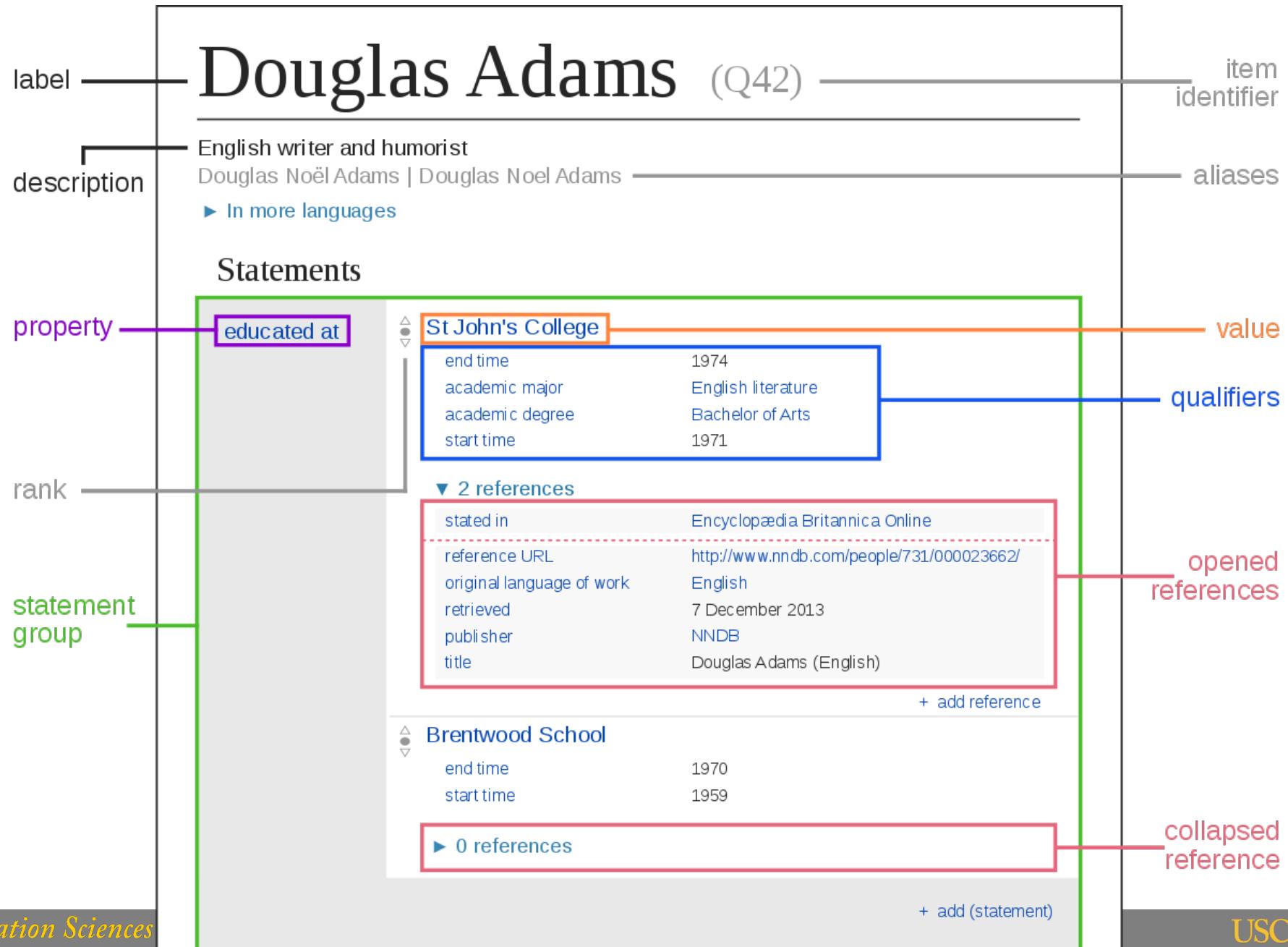
multi-lingual

# The Wikidata Data Model

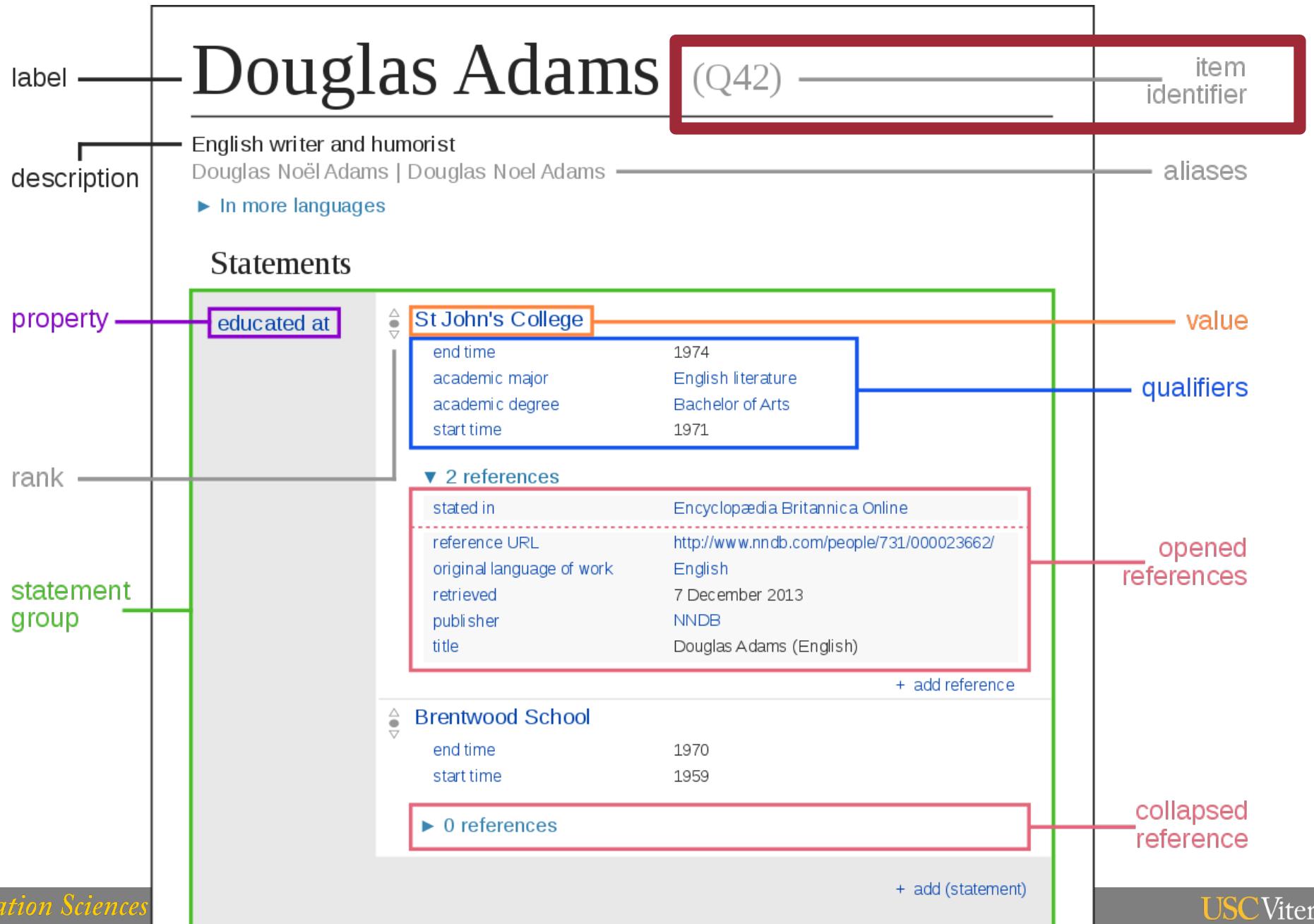
# Wikidata Is A Knowledge Graph



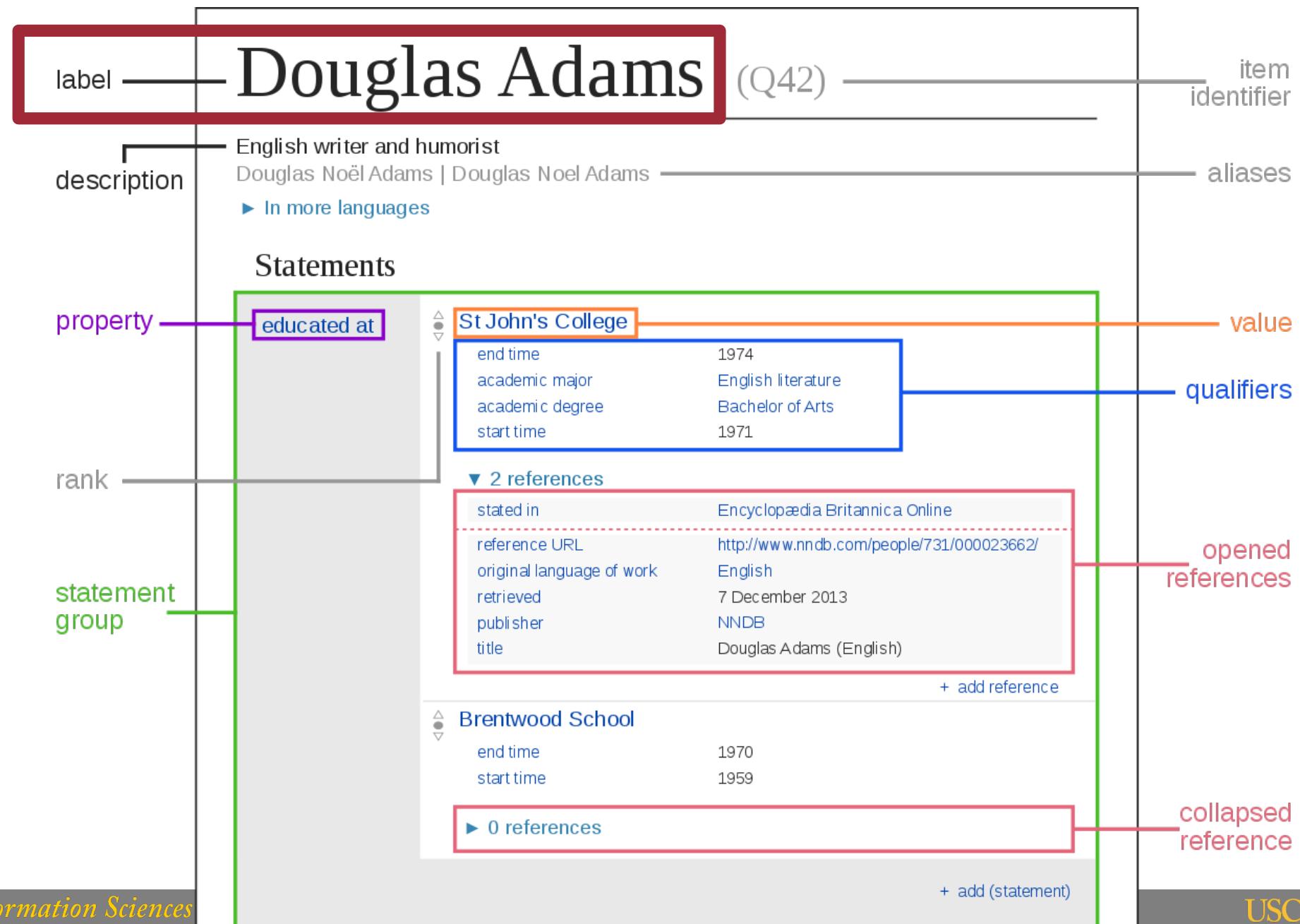
# Data Model



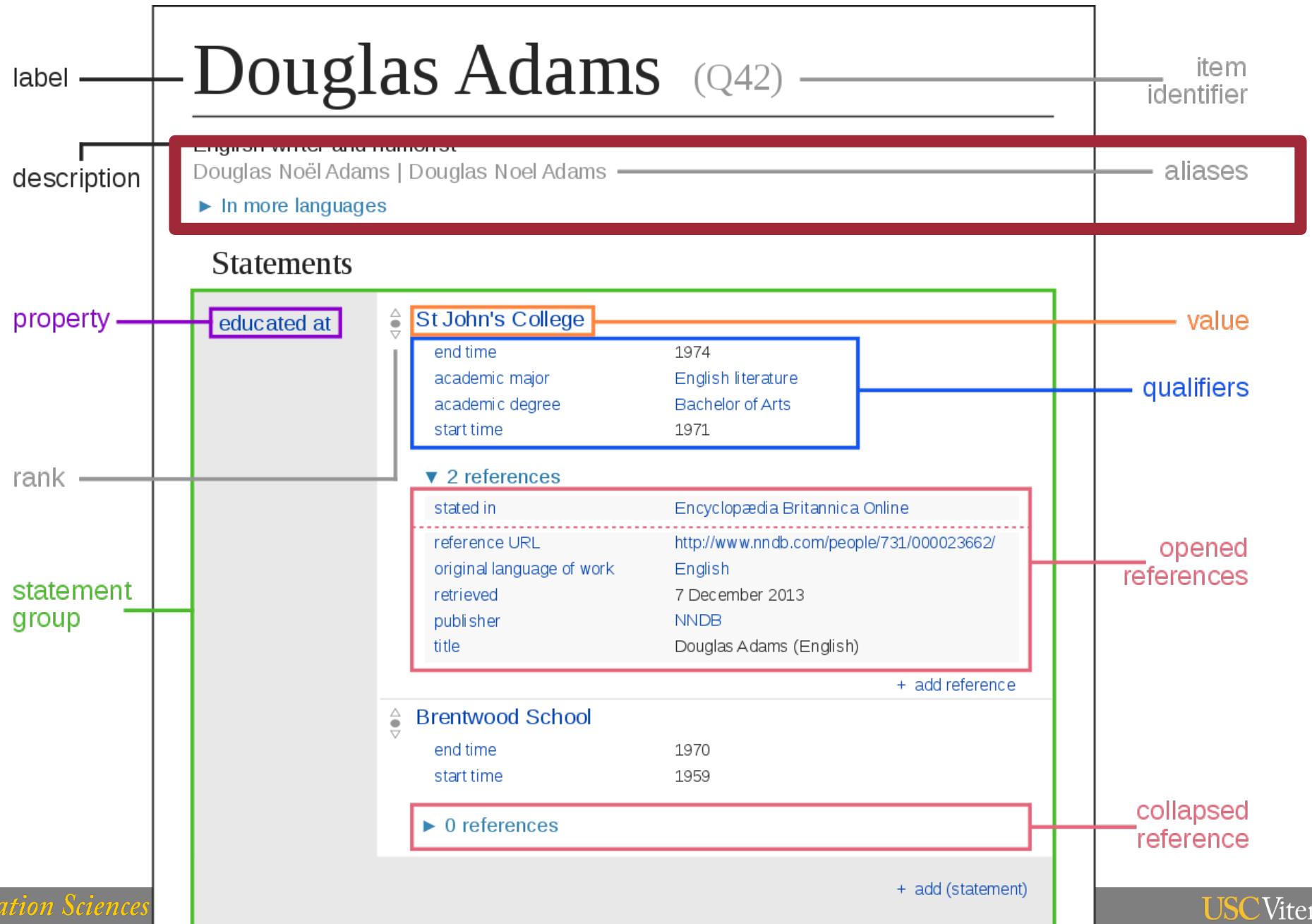
# Data Model: Identifier (q-node)



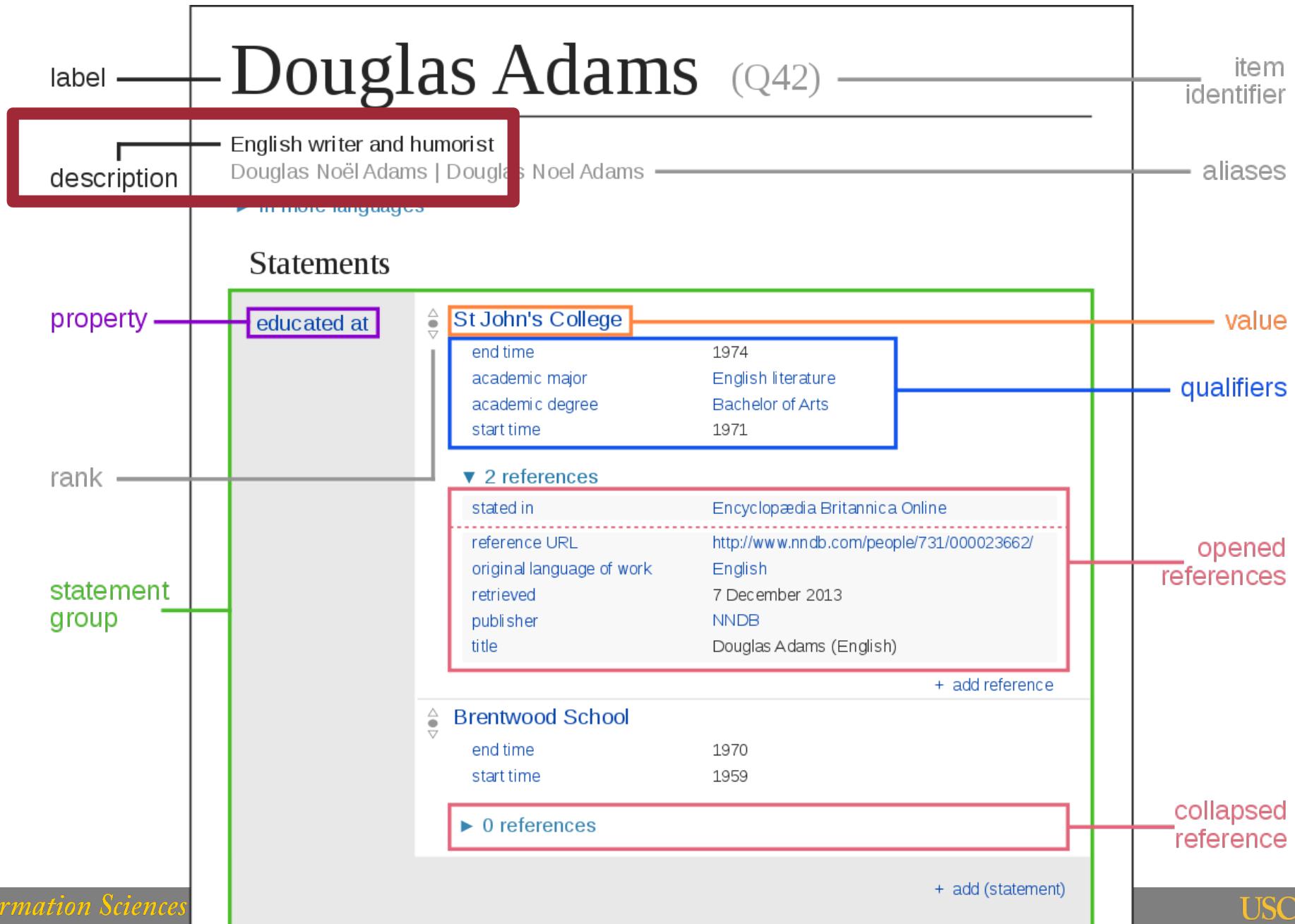
# Data Model: Multi-Lingual Labels



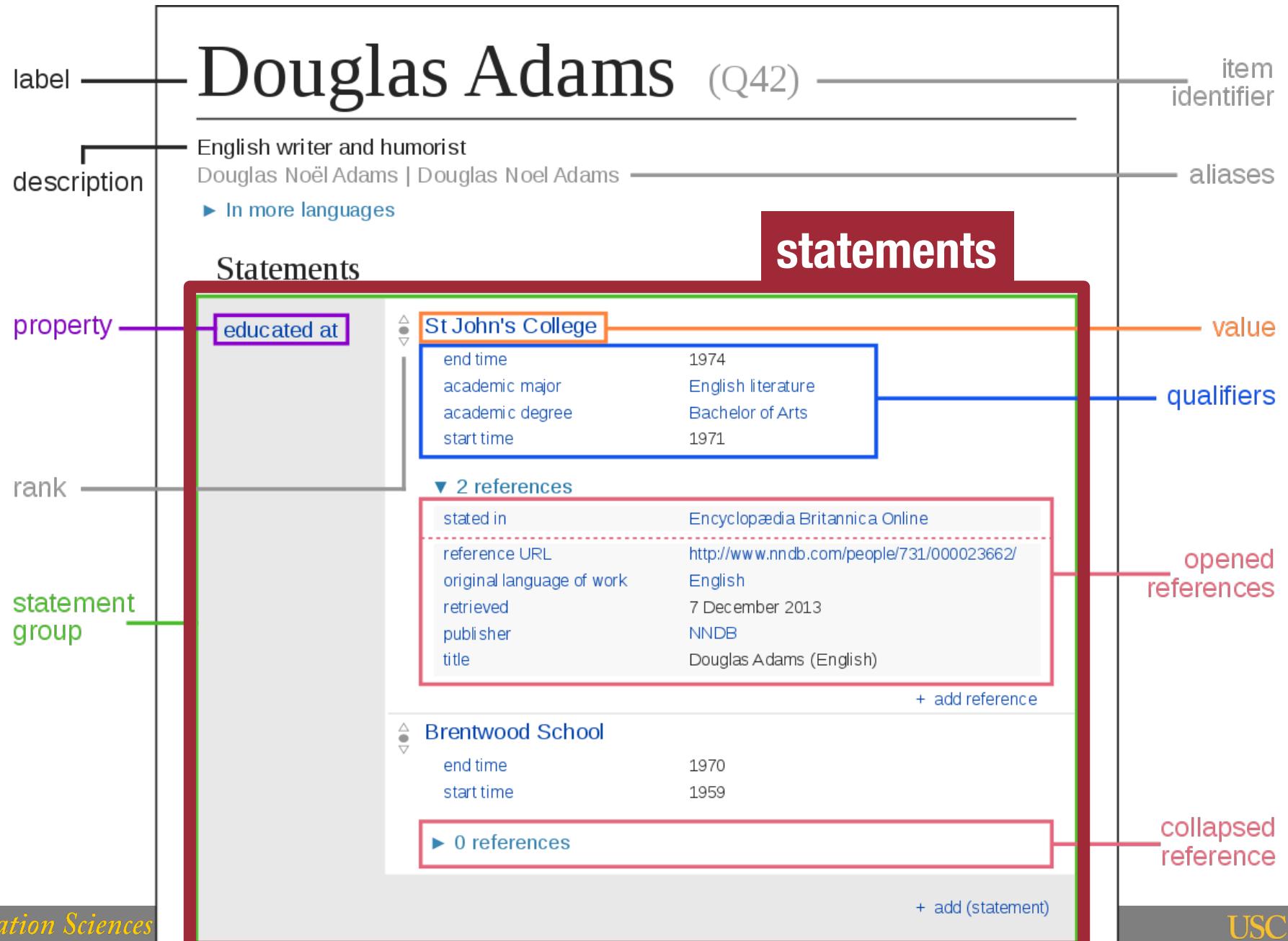
# Data Model: Multi-Lingual Aliases



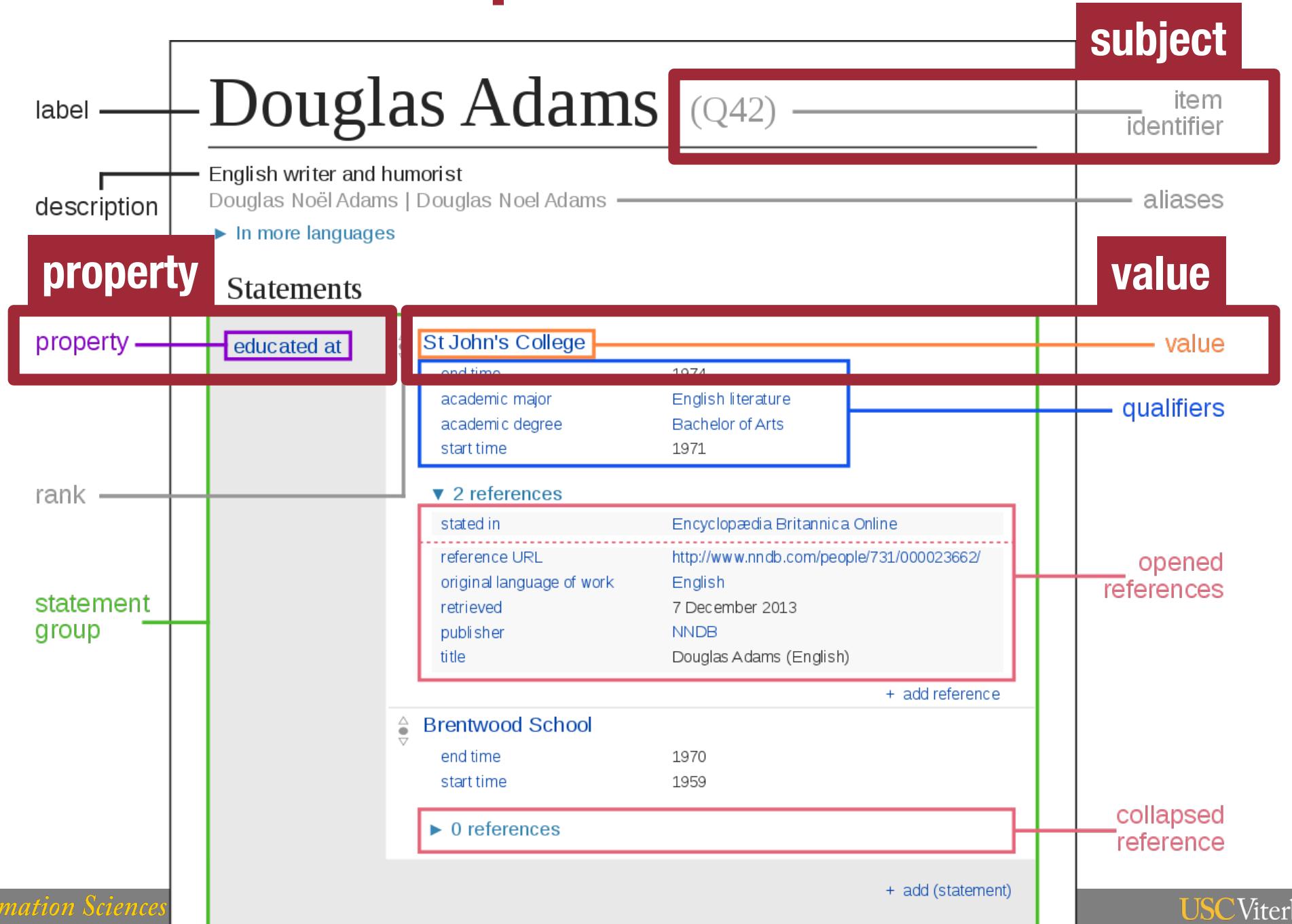
# Data Model: Multi-Lingual Descriptions



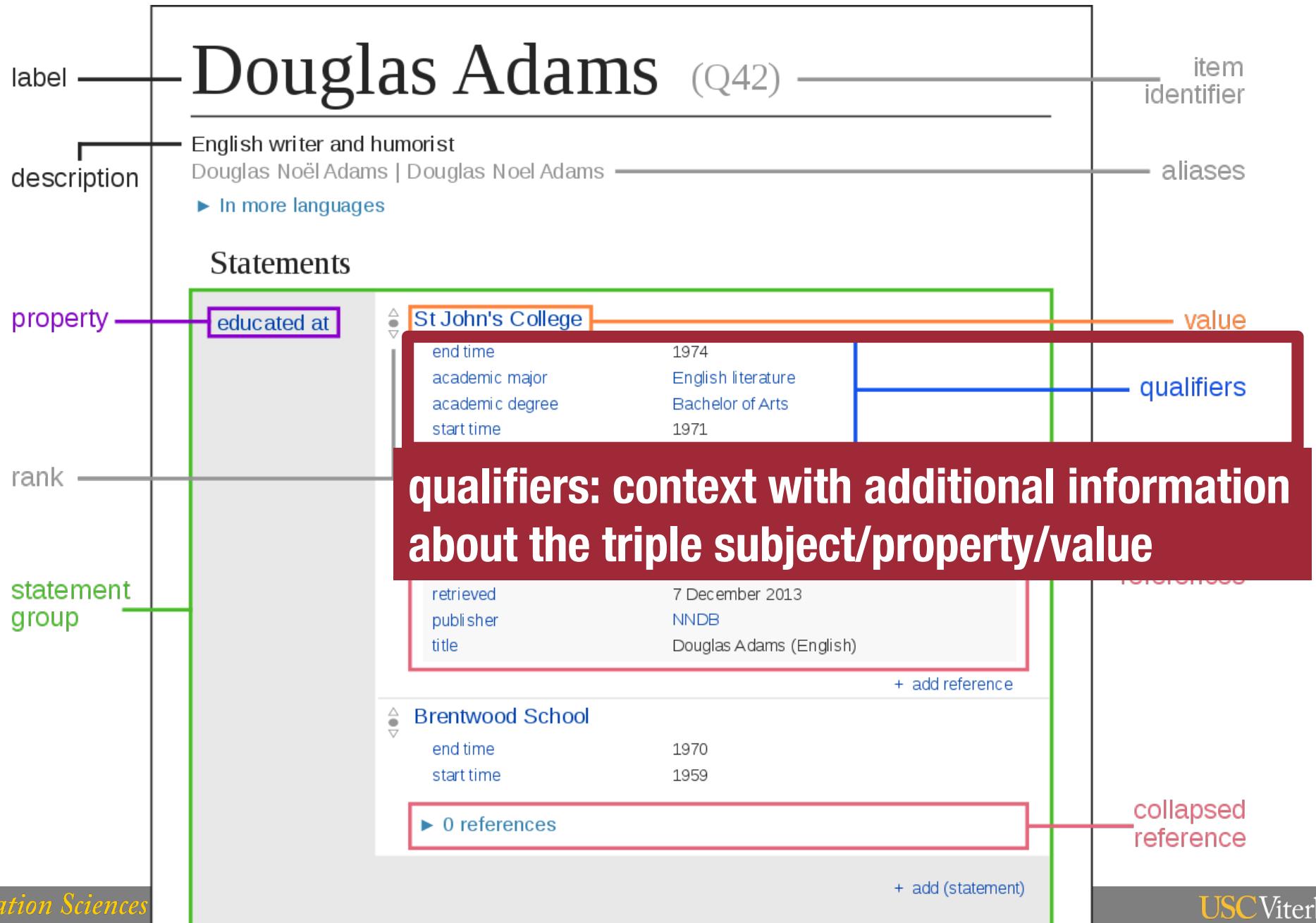
# Data Model: Statements



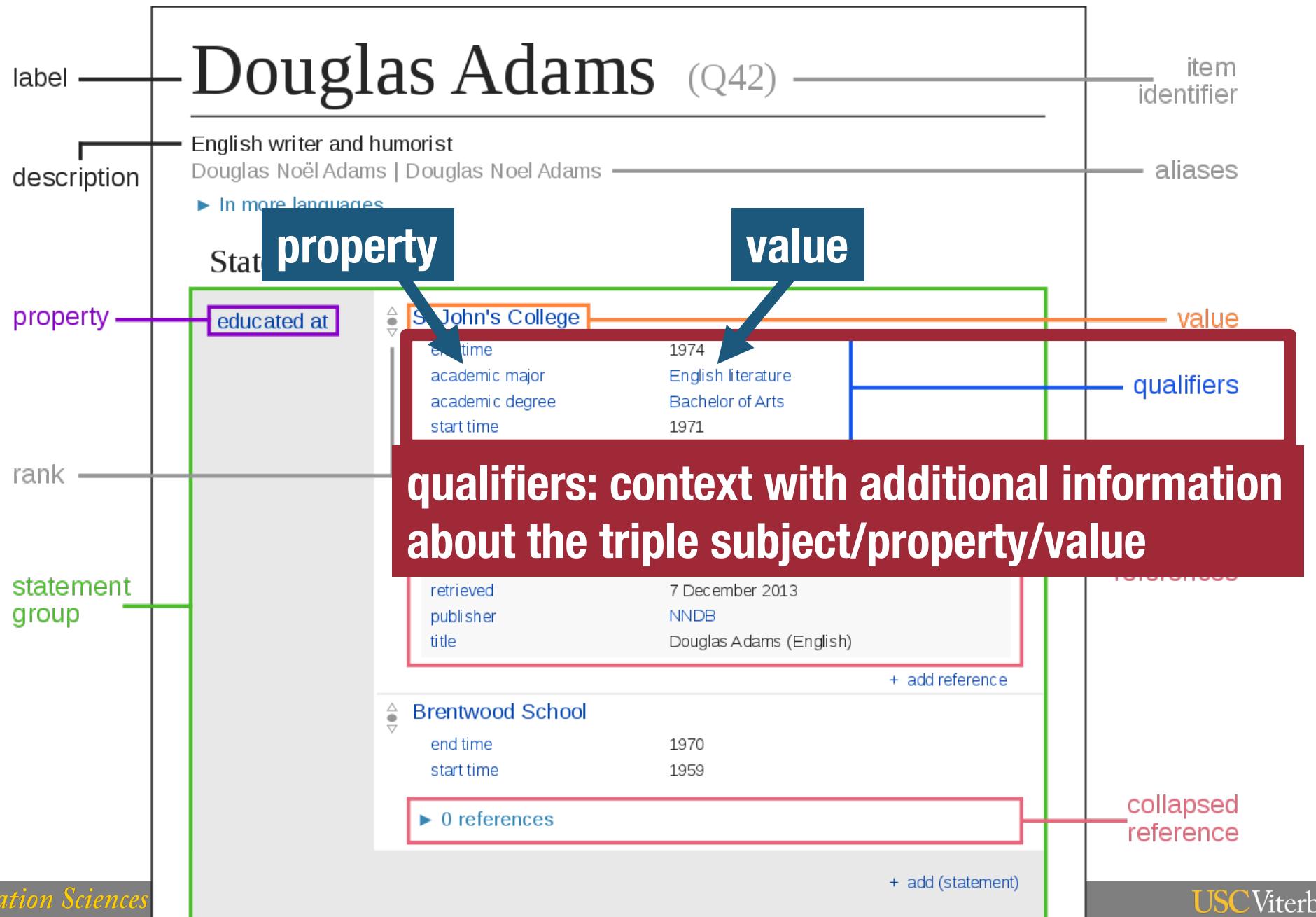
# Data Model: Triples



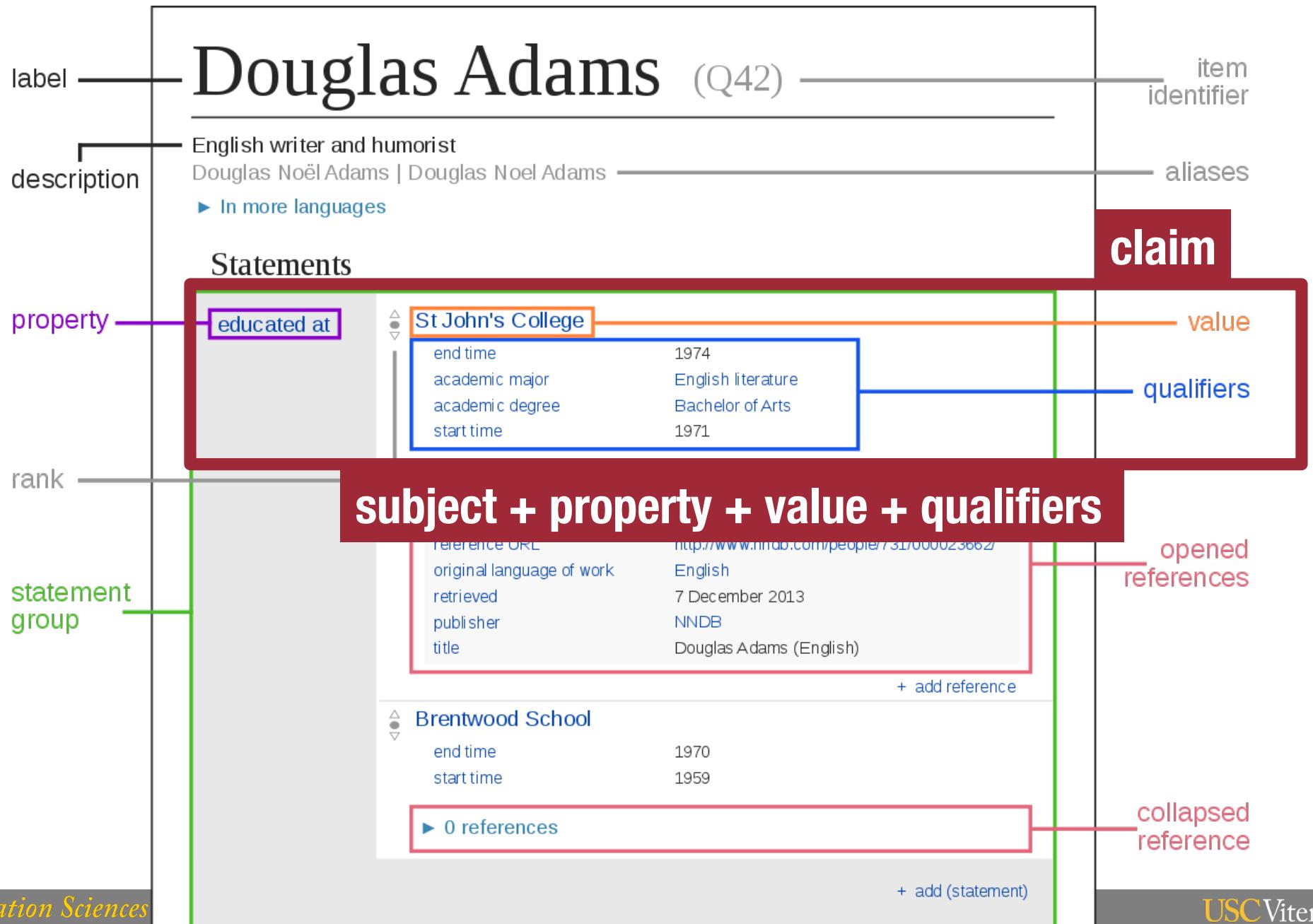
# Data Model: Qualifiers



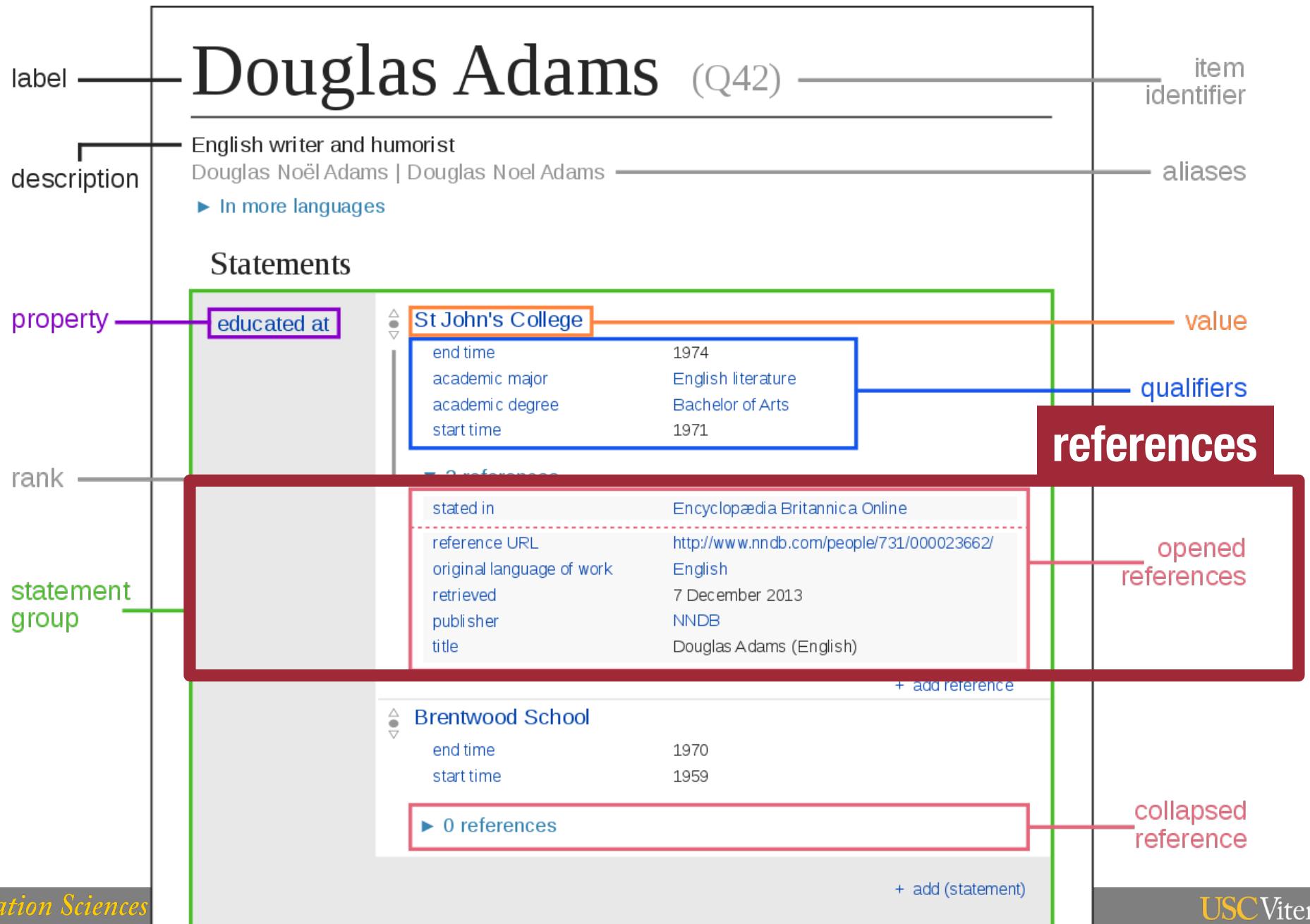
# Data Model: Qualifiers = property + value



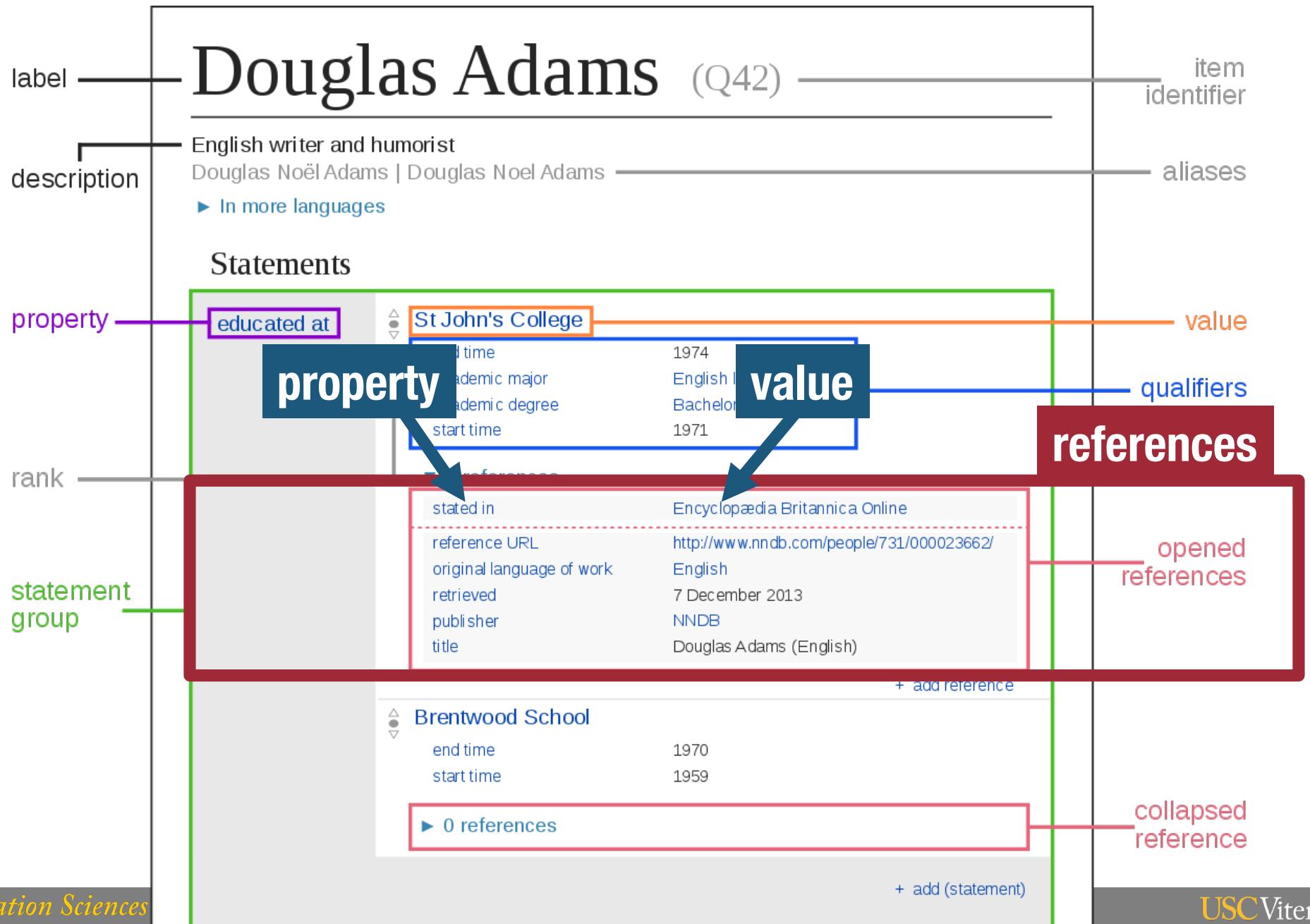
# Data Model: Claims



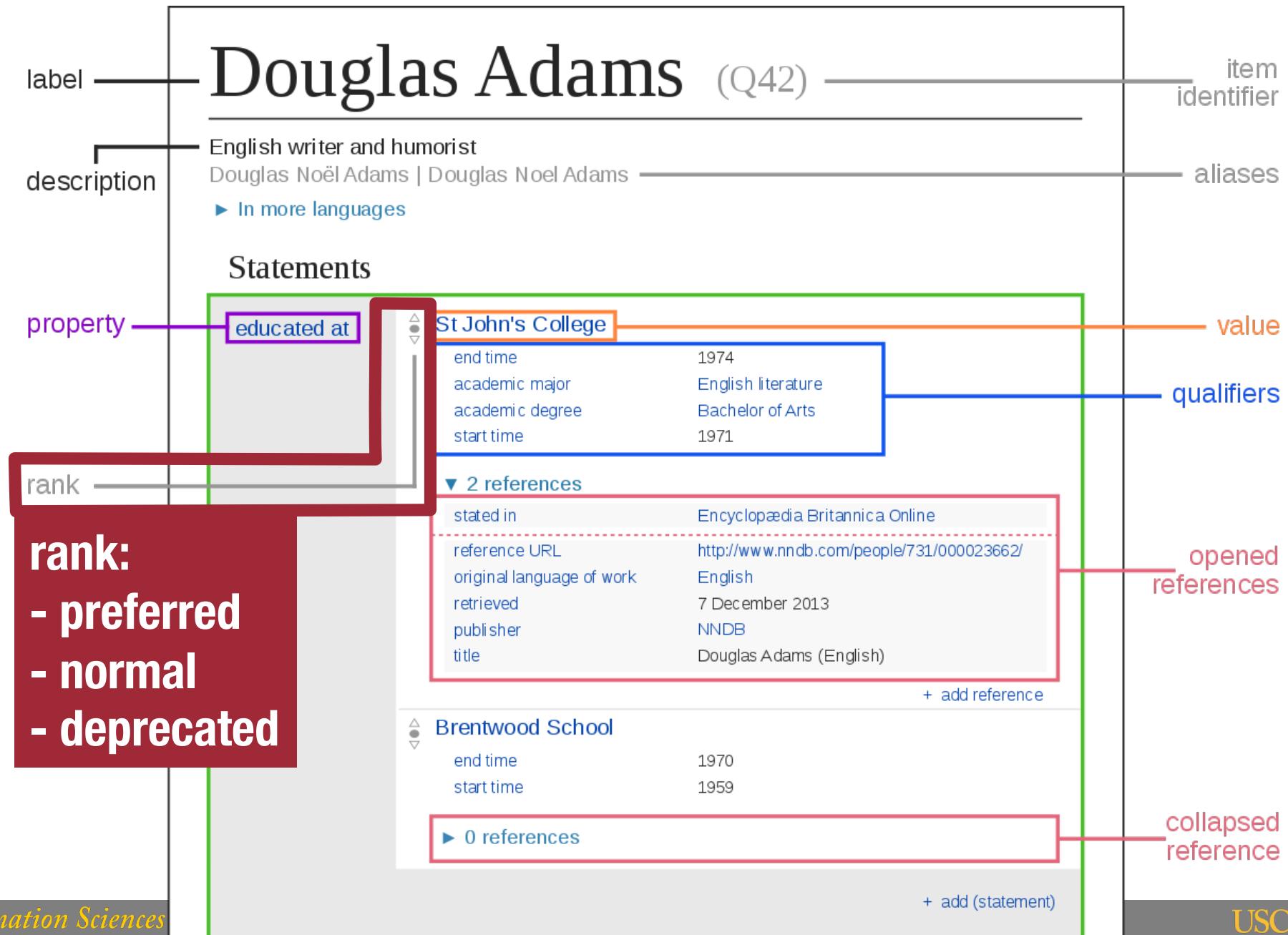
# Data Model: References



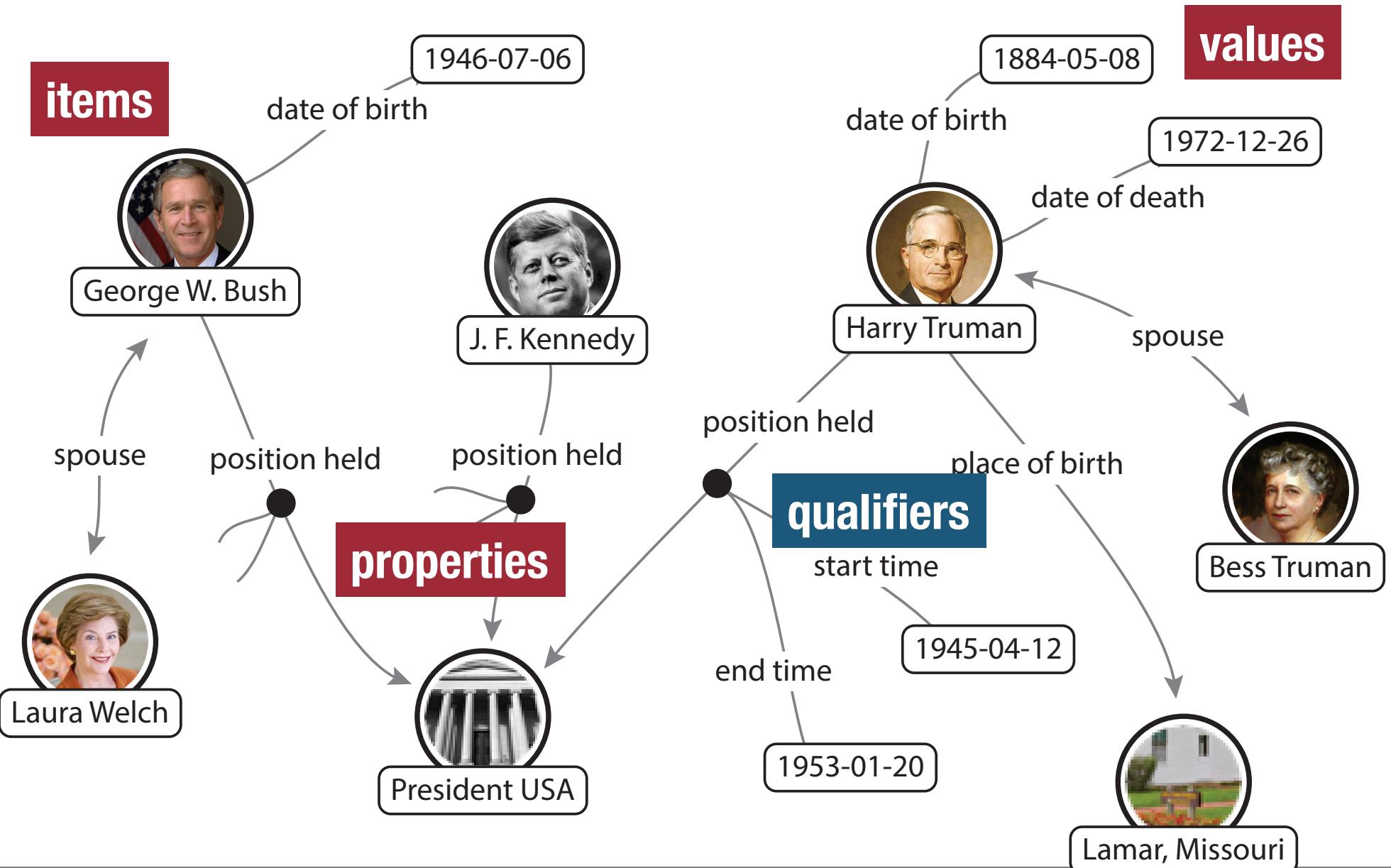
# Data Model: Reference = property+value



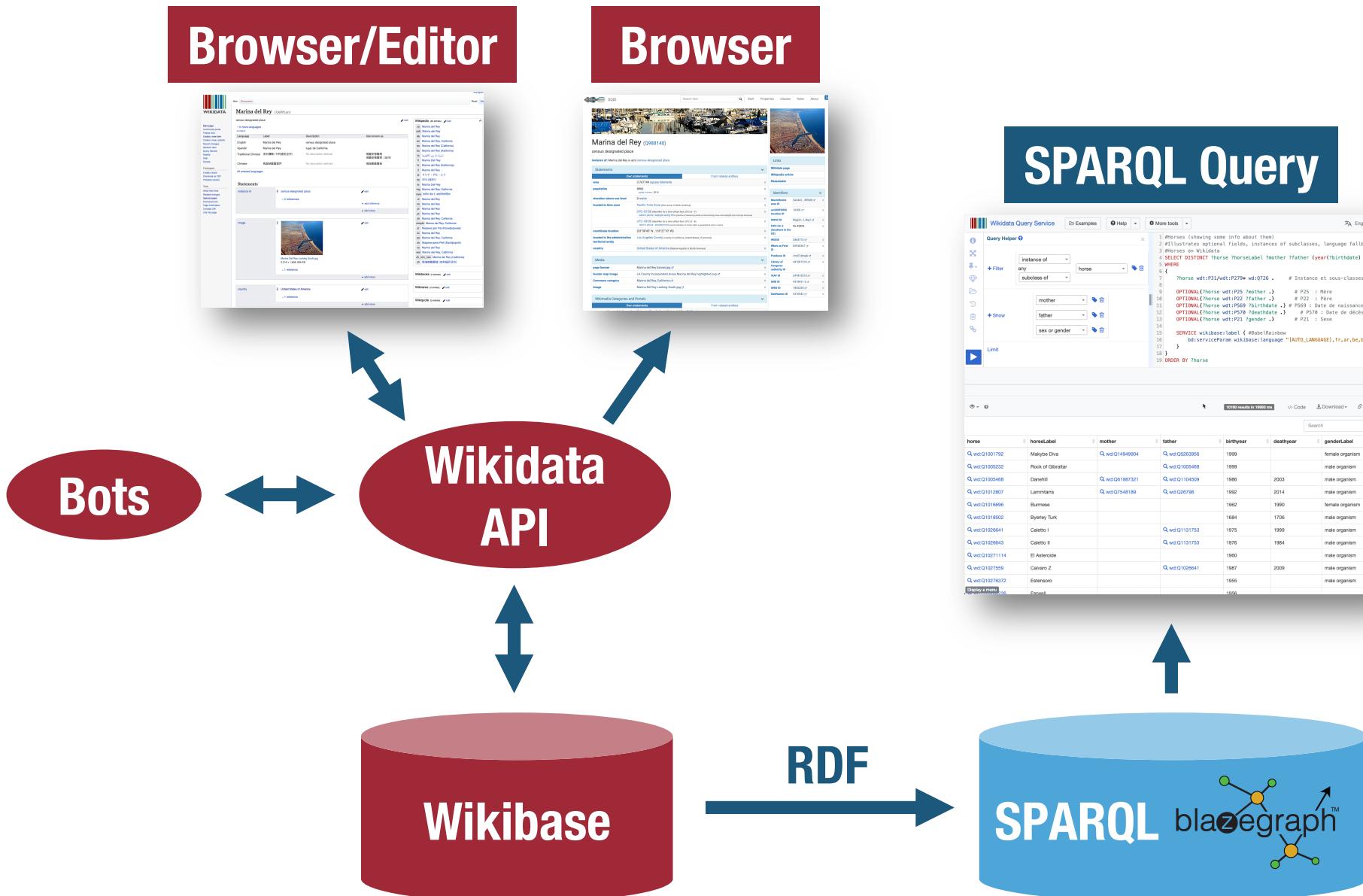
# Data Model: Statement Rank



# Wikidata Is A Knowledge Graph



# Wikidata Architecture



# Wikibase API

<https://www.mediawiki.org/wiki/Wikibase/API>



Main page  
Get MediaWiki  
Get extensions  
Tech blog  
Contribute

Support

User help  
FAQ  
Technical manual  
Support desk  
Communication  
Development  
Bug tracker  
Code repository  
Code docs  
Statistics

MediaWiki.org  
Community portal  
Recent changes  
Translate content  
Random page  
Current issues  
Sandbox

Print/export  
Create a book  
Download as PDF  
Printable version

English Not logged in Talk Contributions Create account Log in

Page Discussion Read Edit View history Search MediaWiki

## Wikibase/API

< Wikibase

Translate this page

Other languages: Deutsch • English • Nederlands • Türkçe • español • français • polski • português • português do Brasil • български • русский • ไทย • 中文 • 日本語 • 한국어

This page is part of the [MediaWiki Action API](#) documentation.

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- 2 How to use it
  - 2.1 Request format
- 3 A simple query
  - 3.1 GET request
  - 3.2 Response
- 4 API documentation and Wikibase modules
  - 4.1 Meta submodules
  - 4.2 Property submodules
  - 4.3 API modules
- 5 Possible errors
- 6 Additional notes
- 7 See also

MediaWiki version: ≥ 1.9

### MediaWiki Action API

#### Basics

- All Query modules
- Get properties of pages
- List pages matching a criterion
- Get module parameters information
- Get meta information about the wiki and user

#### Authentication

- Get tokens for data modifying operations
- Login
- Logout

#### Accounts and Users

- Create an account
- Block or unblock a user
- Get info about the current user
- Get the current user's watchlist as a feed
- Change user options
- Change user group membership

## What is the Wikibase API? [edit]

Wikibase provides a general mechanism to store statements as structured data. The statements about items live on the server at [wikidata.org](#). See [Wikidata:Glossary](#) for more information on Wikibase and other concepts.

# Wikidata JSON Format

items

property

values

qualifiers

references

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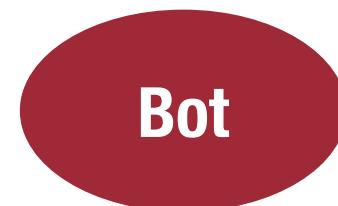
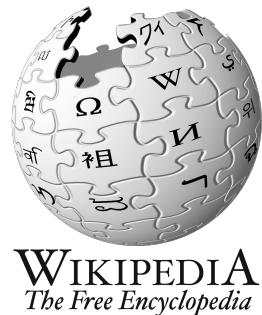
# Comparison With DBpedia, YAGO and Cyc

# Wikidata Data Model

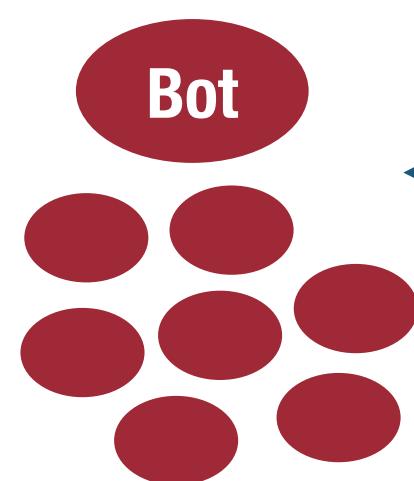
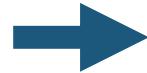
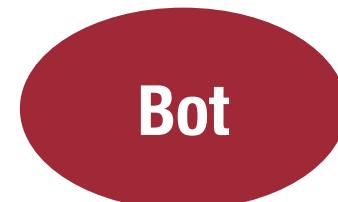
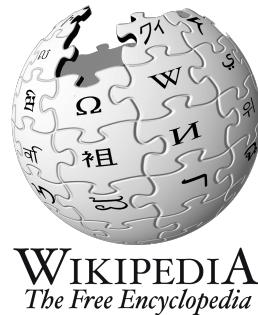
**Dbpedia and YAGO: RDF Triples**  
**subject + property + value**

**Wikidata Statements**  
**subject + property + value + qualifiers + references**

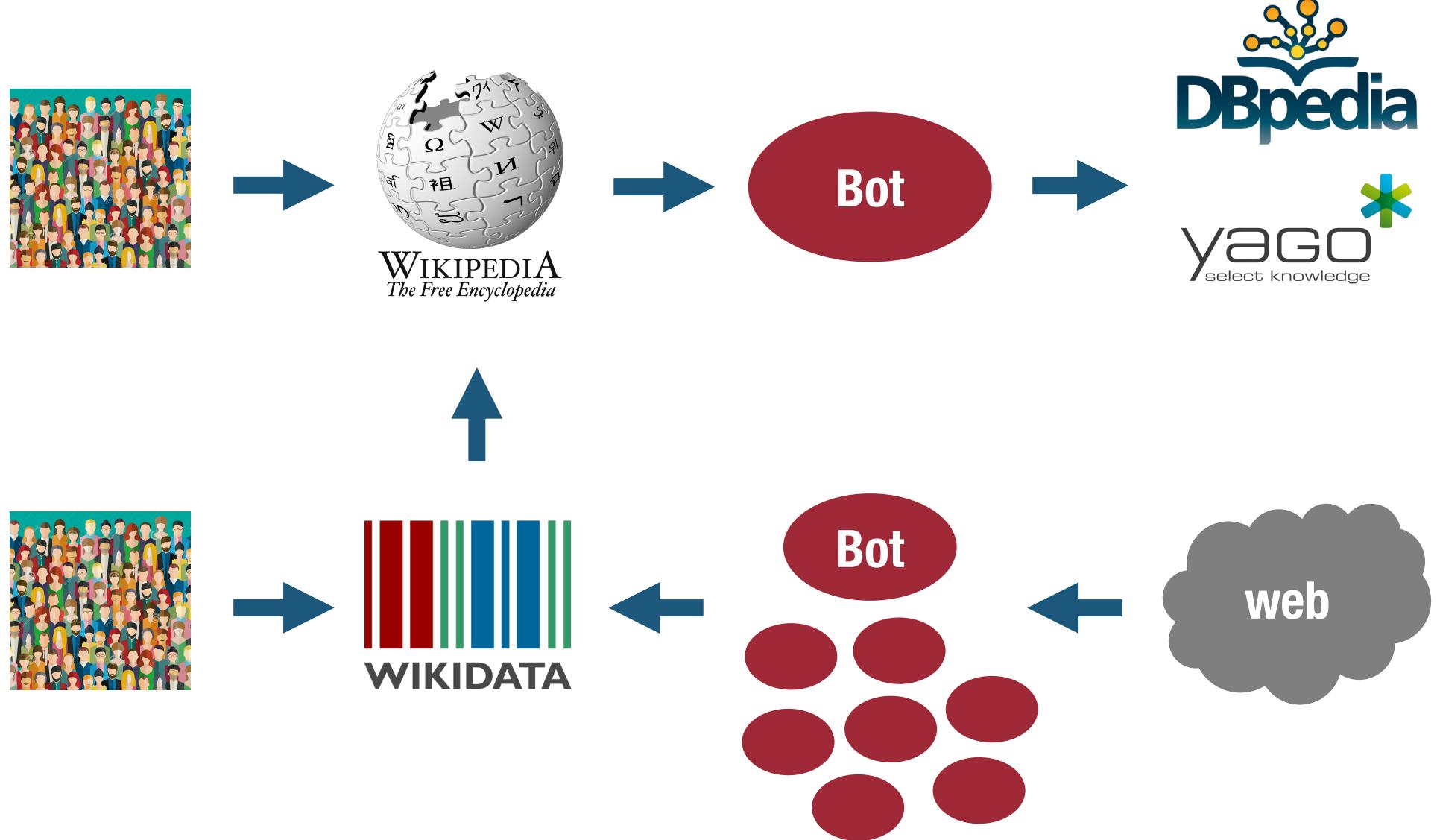
# DBpedia & YAGO: Built From Wikipedia



# Wikidata: Crowdsourced + Bots



# Wikidata Feeds Wikipedia Infoboxes



# Cyc

<https://www.cyc.com/>



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## CYC'S KNOWLEDGE BASE

> 10,000 predicates  
> 25M assertions

### The World's Broadest and Deepest Common Sense Knowledge Base

#### Practical, Retargetable, and Reusable Real-World Knowledge

Cyc has the world's broadest and deepest common sense knowledge base (KB), by orders of magnitude. The KB is not a database – it consists of real world axioms that Cyc uses to reason about the world and understand your data. Cyc's KB includes more than 10,000 predicates, millions of collections and concepts, and more than 25 million assertions. When coupled with the inference engines, Cyc can quickly prove trillions of bits of usable, real world knowledge.

While the size of the KB is impressive, Cycorp's chief goal is quality over quantity. Knowledge is represented as generally as possible so that it can be broadly reused and efficiently reasoned with. For example, rather than express that “nurses require medical training” and “doctors require medical training” and “paramedics require medical training”, Cyc only has one assertion that all medical professionals require medical training. In terms of counting, this is just one piece of knowledge, but that knowledge can be efficiently re-targeted to prove the relevant claim for any particular type of medical professional. For another example, Cyc knows that “If a conduit is pinched, then pressure builds upstream and decreases downstream.” This fact about fluid dynamics applies to blood in veins, oil in pipes, milkshakes in drinking straws, and so on.



# Wikidata “Ontology”

**No OWL file  
No RDF Schema file**

**... but there is a very large “Ontology”**

# instance of (P31)



SQID

Search Item



Start

Properties

Classes

Rules

About

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## Kristabel Doebel-Hickok (Q19757547)

American bicycle racer

**instance of:** Kristabel Doebel-Hickok is a(n) human

### Statements

#### Own statements

<b>member of sports team</b>	Rally Cycling (United States women's cycling team) start time : 2019	>
	Cylance Pro Cycling (United States women's cycling team) start time : 2016 end time : 2018	>
	Team TIBCO (women's cycling team) start time : 2014 end time : 2015	>

#### sport

<b>country of citizenship</b>	United States of America (federal republic in North America)	>
<b>place of birth</b>	Marina del Rey (census designated place)	>
<b>date of birth</b>	1989-04-28	>
<b>occupation</b>	sport cyclist (someone who competes in the sport of cycling)	>
<b>sex or gender</b>	female (human gender (use with P21))	>

<b>Media</b>		>
<b>image</b>	Krista Doebel-Hickok, Giro Rosa 2016.jpg ↗ media legend : Au Tour d'Italie 2016 [fr]	>



### Links

[Wikidata page](#)[Wikipedia article](#)[Reasonator](#)

### Identifiers

[ProCyclingStats 179437 ↗](#)[cyclist ID](#)[Cycling 98235 ↗](#)

# subclass of (P279)

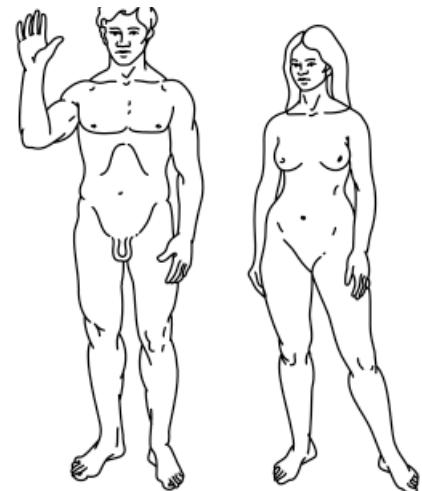
## human (Q5)

human being | humankind | people | homosapiens | person

common name of *Homo sapiens*, unique extant species of the genus *Homo*

**subclass of:** every human is also a(n) person, natural person, omnivore

**instance of:** human is a(n) group of organisms known by one particular common name [i](#)



### Instances

Direct instances	4
	Yanka Kupala , František Plánička , Augusto Pinochet , Julian Assange , Blanche of Castile , Adolf Hitler , Piet Kraak , Louis IX of France , Patricio Aylwin , Nicolas Sarkozy , Ricardo Lagos , Eduardo Frei Ruiz-Tagle , Michelle Bachelet , Galileo Galilei , Sebastian Piñera , El Greco , Elvis Presley , Diego Velázquez , Claude Monet , Paul Morand , ... further results

All instances	5511999
---------------	---------

Typical Properties	occupation , sex or gender , date of birth , country of citizenship , given name , place of birth , family name , date of death , VIAF ID , educated at , ISNI , place of death , Library of Congress authority ID , languages spoken, written or signed , position held , GND ID , employer , ORCID ID , sport , member of sports team , CBDB ID , name in native language , SUDOC authorities ID ,
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### Classification

Direct superclasses	person <a href="#">5567561</a> , natural person <a href="#">5512007</a> , omnivore <a href="#">5511999</a>
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Direct subclasses	With instances <a href="#">24</a> With subclasses <a href="#">48</a> All <a href="#">178</a>
	female <a href="#">491</a> , woman <a href="#">394</a> , male <a href="#">227</a> , elected person <a href="#">153</a> , spouse <a href="#">114</a> , person of color <a href="#">83</a> , technician <a href="#">61</a> , child <a href="#">54</a> , migrant <a href="#">37</a> , Guantanamo Bay detainees <a href="#">36</a> , citizen <a href="#">19</a> , candidate <a href="#">14</a> , Caucasian <a href="#">12</a> , missing person <a href="#">11</a> , acquaintance <a href="#">10</a> , inhabitant <a href="#">9</a> , sick person <a href="#">9</a> , patient <a href="#">8</a> , widow or widower <a href="#">8</a> , accused <a href="#">7</a> , anonymous <a href="#">6</a> , eligible voter <a href="#">6</a> , disabled person <a href="#">6</a> , substitute <a href="#">5</a> , adult human <a href="#">5</a> , vacationer <a href="#">5</a> , prenate <a href="#">4</a> , teenager <a href="#">4</a> , women in STEM fields <a href="#">4</a> , Israelis <a href="#">3</a> , live person <a href="#">3</a> , lover <a href="#">2</a> , bog body <a href="#">2</a> , suspect <a href="#">2</a> , alumnus <a href="#">2</a> , conscientious objection <a href="#">2</a> , Military dependent <a href="#">2</a> , Vulnerable person <a href="#">2</a> , Disadvantaged <a href="#">1</a> , special purpose artist <a href="#">1</a> , drug user <a href="#">1</a> , subject <a href="#">1</a> , colleague <a href="#">1</a> , municipality president <a href="#">1</a> , dead person <a href="#">1</a> , anatomically modern human <a href="#">1</a> , centenarian <a href="#">1</a> , plantsman <a href="#">1</a>

All subclasses	1474
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### Links

[Wikidata page](#)

[Wikipedia article](#)

[Reasonator](#)

### Identifiers

[Klexikon article](#) Mensch [↗](#)

ID

[Wolfram](#) Person [↗](#)

Language entity type

[PSH ID](#) 2693 [↗](#)

[OmegaWiki](#) 2234 [↗](#)

Defined Meaning

[NicoNicoPedia](#) ヒト [↗](#)

article ID

[JSTOR topic ID](#) humans [↗](#)

[Australian Educational](#) scot/1144 [↗](#)

# “Classes” Are Items (e.g., Human)

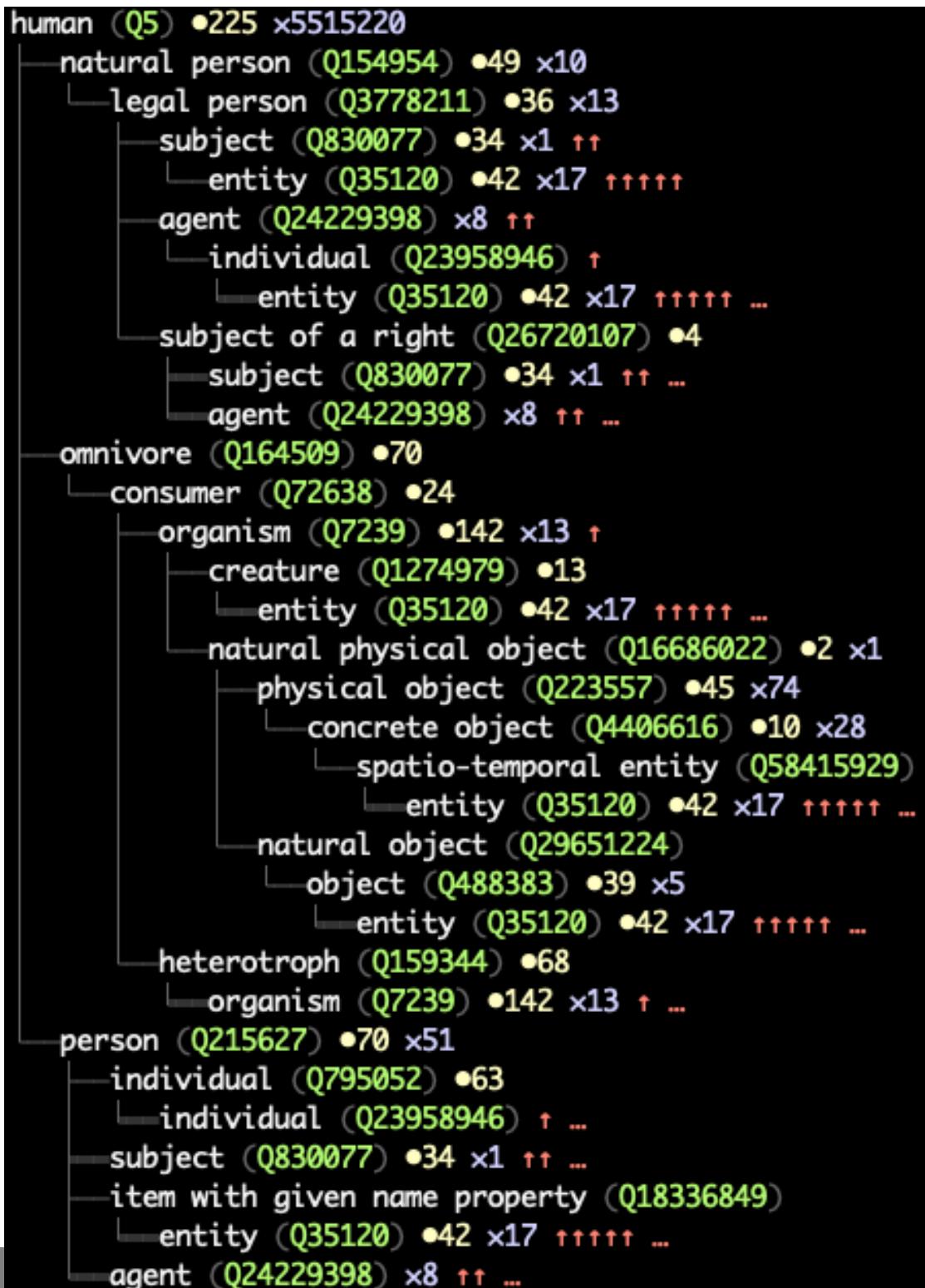
Statements		
	Own statements	From related entities
<b>properties for this type</b>	sex or gender date of birth date of death	> > >
<b>40 statements &gt;</b>		
<b>equivalent class</b>	<a href="http://dbpedia.org/ontology/Person">http://dbpedia.org/ontology/Person</a>	>
<b>model item</b>	Douglas Adams (English writer and humorist) Marie Curie (Polish-French physicist and chemist) Leonardo da Vinci (Italian Renaissance polymath (1452-1519))	> > >
<b>8 statements &gt;</b>		
<b>produced sound</b>	human voice (sound made by a human being using the vocal folds for talking, singing, laughing, crying, screaming, etc)	>
<b>studied by</b>	anthropology (science of humanity) human ecology (interdisciplinary and transdisciplinary study of the relationship between humans and their natural, social, and built environments)	> >
<b>topic's main template</b>	Template:Infobox person (Wikimedia template) Template:Infobox Biography2 (Wikipedia template page: LUA based infobox for biographic articles) use : English Wikipedia (English-language edition of Wikipedia) Q25990294 (Wikimedia template)	> > >
<b>Wikidata property</b>	Grammy Awards artist ID	>
<b>permanent duplicated item</b>	Q22828631 (Wikimedia permanent duplicate item)	>
<b>male form of label</b>	homulo [io]	>
<b>female form of label</b>	homino [eo] ser humana [es] homino [io] umana [it]	> > > >
<b>has effect</b>	artificial entity (anything created by humans (either material or mental))	>
<b>described by source</b>	Catholic Encyclopedia (English-language encyclopedia) section, verse, paragraph, or clause : Human Race  Brockhaus and Efron Encyclopedic Dictionary (comprehensive multi-volume encyclopedia in Russian) statement is subject of : Q24515683 (encyclopedic article) statement is subject of : Q24515684 (encyclopedic article)	> > >
<b>5 statements &gt;</b>		

<b>MeSH descriptor ID</b>	D006801 ↗ named as : Humans	>
<b>Panorama de l'art ID</b>	I-humain ↗	>
<b>BabelNet ID</b>	00044576n ↗	>
<b>Encyclopædia Britannica Online ID</b>	topic/...-being ↗	>
<b>MeSH code</b>	B01.05...00.400 ↗	>
<b>Krugosvet article</b>	biolog...apiens ↗	>
<b>Gran Encyclopædia Catalana ID</b>	0187830 ↗	>
<b>Quora topic ID</b>	Humans ↗	>
<b>Encyclopedia of Modern Ukraine ID</b>	59900 ↗	>
<b>NE.se ID</b>	människan ↗	>
<b>Freebase ID</b>	/m/0dgw9r ↗	>
<b>Catholic Encyclopedia ID</b>	12620b ↗	>
<b>GND ID</b>	4038639-9 ↗	>
<b>National Library of Israel identifier</b>	000710772 ↗	>
<b>Giant Bomb ID</b>	3015-810 ↗	>
<b>Wolfram Language unit code</b>	&quot;...&quot;	>
<b>US National Archives Identifier</b>	10639765 ↗	>

# Large Class Hierarchy

2,464,270 classes:  
items with a **subclass of** (P279)  
property

63,672 classes with instances:  
appear as values of **instance of** (P31) property



# Properties

## inception (P571)

date founded | date created | incorporated | foundation | created | date of foundation | date of creation | established | establishment date | foundation date | creation date | incorporation date | date incorporated | date of incorporation | date of establishment | founding date | date of founding | date formed | formation date | formed on date | founded on date | incorporated on date | established on date | created on date | commencement date | date commenced | commenced on date | date of commencement | time of foundation or creation | date of foundation or creation | written on date | time of inception | year founded | year created | year incorporated | year written | year commenced | year established | date constructed | construction date | constructed | initiated | formation | dedication date | formed in | formed at | inaugurated | launch date | introduced | introduction | start date | completed | first issue | built | foundation/ creation date | founded

date or point in time when the subject came into existence as defined

Type: Time

subproperty of: every inception is also a(n) start time

Instance of: inception is a(n) Wikidata property for items about organizations, Wikidata property with datatype 'time'

Property Usage	
Entities	1713499 Venus of Petřkovice , Venus of Hohle Fels , Mehrgarh , Göbekli Tepe , Tel Megiddo , Venus of Laussel , Çatalhöyük , Knossos , Cave of Altamira , Venus of Willendorf , ... further results
Typical Properties	creator , inventory number , collection , official website , width , height , material used , location , headquarters location , image , described at URL , country , dissolved , abolished or demolished , LfDS object ID , IIIF manifest , depicts , National Gallery of Art artwork ID , located in the administrative territorial entity , coordinate location , IUCN protected areas category ,
Statements	1731900 (1.01 per entity)
Qualifiers	latest date 80852 , earliest date 79715 , sourcing circumstances 79150 , instance of 10430 , applies to part 8814 , stated as 4862 , start time 4458 , end time 4337 , refine date 2220 , statement is subject of 323 , has cause 151 , location 137 , object has role 123 , subject has role 103 , named as 98 , identity of subject in context 80 , of 70 ,
Uses as qualifier	1685
Uses in references	114

Statements	
	Own statements
equivalent property	<a href="http://schema.org/foundingDate">http://schema.org/foundingDate</a> ★
subproperty of	start time
subject item of this property	date of establishment (date something was established)
Wikidata property example	Society of Jesus (male religious congregation of the Roman Catholic Church) inception : 1539  Church of Saint Michael (church in Olomouc District of Olomouc region) inception : 1300  Dracula (1897 Gothic horror novel by Irish author Bram Stoker) inception : 1890 start time : 1890-03-08 end time : 1897-05-26

property proposal discussion	<a href="https://www.wikidata.org/wiki/Wikidata:Property_proposalArchive/8#P571">https://www.wikidata.org/wiki/Wikidata:Property_proposalArchive/8#P571</a>
property constraint	<b>single value constraint</b> (type of constraint for Wikidata properties: used to specify that this property generally contains a single value per item) exception to constraint : Italian National Society separator : applies to part separator : applies to jurisdiction separator : named as separator : subject has role separator : identity of subject in context separator : series ordinal separator : nature of statement  <b>conflicts-with constraint</b> (type of constraint for Wikidata properties: used to specify that an item must not have a given statement) property : instance of item of property constraint : <a href="#">Wikimedia disambiguation page</a> (type of page in the Wikimedia system. Use with P31 'instance of' for disambiguation pages) item of property constraint : <a href="#">Wikimedia category</a> (use with 'instance of' (P31) for <a href="#">Wikimedia category</a> ) item of property constraint : <a href="#">Wikimedia list article</a> (page of a Wikimedia project with a list of something) group by : instance of

allowed qualifiers constraint	(type of constraint for Wikidata properties: used to specify that only the listed qualifiers should be used. No value disallows any qualifier) property : earliest date property : latest date property : sourcing circumstances property : instance of property : applies to part property : statement is subject of property : start time property : end time property : refine date property : has cause property : time index property : identity of subject in context property : subject has role property : applies to jurisdiction property : named as property : statement disputed by property : stated as property : location property : has quality property : quote property : object has role property : statement supported by property : criterion used property : series ordinal exception to constraint : <a href="#">Newtontoppen</a> (largest and highest mountain in Svalbard, Norway) exception to constraint : <a href="#">JOSM</a> (free software editor for OpenStreetMap data)
see also	service entry  date of official opening  location of final assembly

Wikimedia Categories and Portals	
category for value different from Wikidata	<a href="#">Q22013004</a> (Wikimedia category)
category for value not in Wikidata	<a href="#">Category:Inception not in Wikidata, but available on Wikipedia</a> (Wikimedia category)
category for value same as Wikidata	<a href="#">Q32085204</a> (Wikimedia category)
property usage tracking category	<a href="#">Category:Pages using Wikidata property P571</a> (Wikimedia category)

# data type

Type: Time

subproperty of: every inception is also a(n) start time

instance of: inception is a(n) Wikidata property for items about organizations, Wikidata property with datatype 'time'

# hierarchy



## Property Usage

Entities	1713499 Venus of Petřkovice , Venus of Hohle Fels , Mehrgarh , Göbekli Tepe , Tel Megiddo , Venus of Laussel , Çatalhöyük , Knossos , Cave of Altamira , Venus of Willendorf , ... further results
Typical Properties	creator , inventory number , collection , official website , width , height , material used , location , headquarters location , image , described at URL , country , dissolved, abolished or demolished , LfDS object ID , IIIF manifest , depicts , National Gallery of Art artwork ID , located in the administrative territorial entity , coordinate location , IUCN protected areas category ,
Statements	1731900 (1.01 per entity)
Qualifiers	latest date 80852 , earliest date 79715 , sourcing circumstances 79150 , instance of 10430 , applies to part 8814 , stated as 4862 , start time 4458 , end time 4337 , refine date 2220 , statement is subject of 323 , has cause 151 , location 137 , object has role 123 , subject has role 103 , named as 98 , identity of subject in context 80 , of 70 ,
Uses as qualifier	1685
Uses in references	114

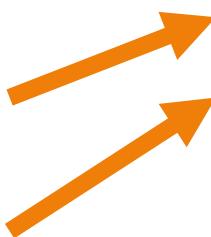
## Statements

	Own statements	From related entities
equivalent property	<a href="http://schema.org/foundingDate">http://schema.org/foundingDate</a> ↗ ★	
subproperty of	start time	
subject item of this property	date of establishment (date something was established)	
Wikidata property example	Society of Jesus (male religious congregation of the Roman Catholic Church) inception : 1539	
	Church of Saint Michael (church in Olomouc District of Olomouc region) inception : 1300	
	Dracula (1897 Gothic horror novel by Irish author Bram Stoker) inception : 1890 start time : 1890-03-08 end time : 1897-05-26	

# “range”



# discussion



# constraints

[https://www.wikidata.org/wiki/Wikidata:Property\\_proposal/Archive/8#P571](https://www.wikidata.org/wiki/Wikidata:Property_proposal/Archive/8#P571)

**single value constraint** (type of constraint for Wikidata properties: used to specify that this property generally contains a single value per item)  
exception to constraint : Italian National Society  
separator : applies to part  
separator : applies to jurisdiction  
separator : named as  
separator : subject has role  
separator : identity of subject in context  
separator : series ordinal  
separator : nature of statement

**conflicts-with constraint** (type of constraint for Wikidata properties: used to specify that an item must not have a given statement)  
property : instance of  
item of property constraint : [Wikimedia disambiguation page](#) (type of page in the Wikimedia system. Use with P31 'instance of' for disambiguation pages)

item of property constraint : [Wikimedia category](#) (use with 'instance of' (P31) for Wikimedia category)  
item of property constraint : [Wikimedia list article](#) (page of a Wikimedia project with a list of something)  
group by : instance of

**allowed qualifiers constraint** (type of constraint for Wikidata properties: used to specify that only the listed qualifiers should be used. No value disallows any qualifier)

property : earliest date  
property : latest date  
property : sourcing circumstances  
property : instance of  
property : applies to part  
property : statement is subject of  
property : start time  
property : end time  
property : refine date  
property : has cause  
property : time index  
property : identity of subject in context  
property : subject has role  
property : applies to jurisdiction  
property : named as  
property : statement disputed by  
property : stated as  
property : location  
property : has quality  
property : quote  
property : object has role  
property : statement supported by  
property : criterion used  
property : series ordinal  
exception to constraint : [Newtontoppen](#) (largest and highest mountain in Svalbard, Norway)  
exception to constraint : [JOSM](#) (free software editor for OpenStreetMap data)

**see also**

[9 statements >](#)

service entry

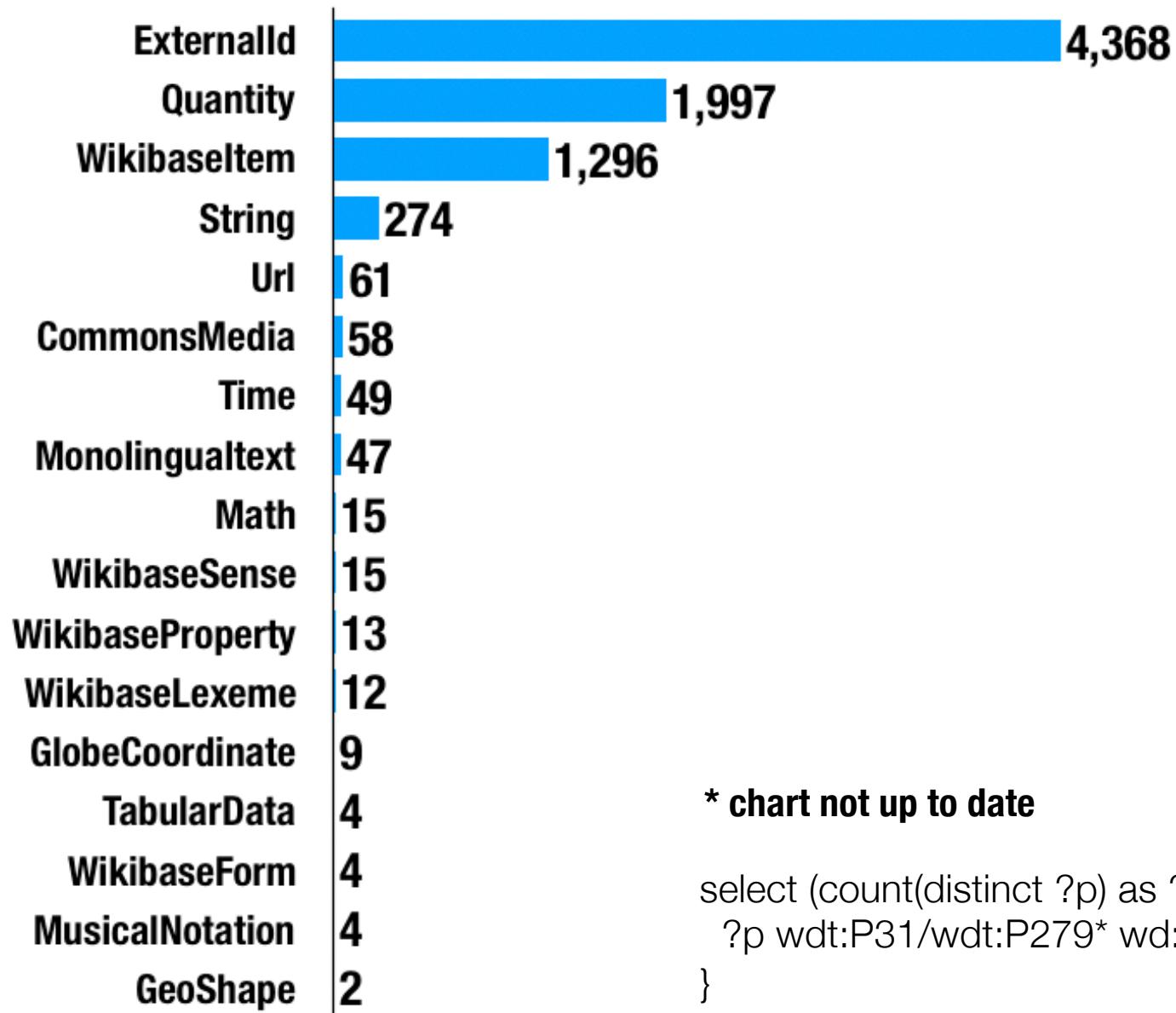
date of official opening

location of final assembly

# inverse



# Properties By Type (Total 7,213\*)



# Property Explorer

<https://tools.wmflabs.org/prop-explorer/>

<https://tools.wmflabs.org/hay/propbrowse/>

Wikidata Property Explorer    Home    About      English

Search the tree...

Show properties in sub-branches 

	ID	Label	Description	Type
▼ Wikidata property	P5972	translation	word in another language that corresponds exactly to this meaning of the lexeme	WikibaseSense
▶ Wikidata property about Wikimedia entities	P1074	fictional analog of fictional version of	used to link an entity or class of entities appearing in a creative work with the analogous entity or class of entities in the real world	WikibaseItem
▶ Wikidata property associated with people	P4200	Christie's creator ID	identifier for an artist in the Christie's online database	ExternalId
▶ Wikidata property for items about people or organisations	P5140	coordinates of geographic center geographical center   geographical centre   geographical midpoint   coordinates of geographic centre   geographic center   geographic centre	coordinates of the center of an area. Use qualifier "determination method" (P459) to indicate how	GlobeCoordinate
▶ Wikidata property likely to be challenged	P5029	Researchmap ID	identifier for a researcher on researchmap.jp	ExternalId
Wikidata property encoding a vCard value	P6	head of government governor   premier   first	head of the executive power of this town, city, municipality, state.	WikibaseItem
▶ Wikidata property for Wikivoyage				
Wikidata property for a discontinued website				
▶ Wikidata property for an identifier				
Wikidata property for causes and effects				
Wikidata property for items about positions				
▶ Wikidata property for items about works				
▶ Wikidata property for perceptual properties				
▶ Wikidata property for properties				
▶ Wikidata property for quantities				
Wikidata property for spacecraft				
Wikidata property for the relationship between classes				
▶ Wikidata property in special need of sourcing				
Wikidata property linking to a representative				

# List Of Properties

[https://www.wikidata.org/wiki/Wikidata:Database\\_reports/List\\_of\\_properties/all](https://www.wikidata.org/wiki/Wikidata:Database_reports/List_of_properties/all)



Project page Discussion Read Edit Edit source View history Search Wikidata

## Wikidata:Database reports/List of properties/all

< Wikidata:Database reports | List of properties

Afrikaans · беларуская · беларуская (тарашкевіца) · български · Banjar · বাংলা · brezhoneg · bosanski · català · کوردی · čeština · словѣньскъ / ئەڭەندەپەۋەن · dansk · Deutsch · Zazaki · dolnoserbski · Ελληνικά · English · Esperanto · español · eesti · فارسی · suomi · føroyskt · français · Nordfriisk · galego · Alemannisch · ગુજરાતી · עברית · हिन्दी · hrvatski · hornjoserbsce · magyar · Հայերեն · Bahasa Indonesia · interlingua · Ilokano · íslenska · italiano · 日本語 · ქართული · қазақша · ຄຳນົດ · 한국어 · kurdi · Latina · lietuvių · latviešu · Malagasy · Minangkabau · македонски · ମାତ୍ୟାଙ୍ଗ · ମରାଠୀ · Bahasa Melayu · Mirandés · مازروني · Nedersaksies · ନେପାଲୀ · Nederlands · norsk bokmål · norsk nynorsk · occitan · ଓଡ଼ିଆ · polski · português · Runa Simi · română · русский · Scots · davvisámegiella · srpskohrvatski / српскохрватски · ଶଙ୍କା · Simple English · slovenčina · slovenščina · shqip · српски / srpski · svenska · šlūnski · தமிழ் · ତେଲୁଗୁ · ไทย · Tagalog · Türkçe · українська · ଶ୍ରୀ · o'zbekcha/ўзбекча · Tiếng Việt · Yorùbá · 中文 (简体) · 中文 (繁體) · 粵語

ID	label	description	aliases	Data type	Count
P6	head of government	head of the executive power of this town, city, municipality, state, country, or other governmental body	chancellor, mayor, prime minister, governor, premier, first minister, executive power headed by, government headed by, head of national government	WikibaseItem	22,478
P10	video	relevant video. For images, use the property P18	animation, media, gif	CommonsMedia	3,267
P14	traffic sign	graphic symbol describing the item, used at the side of or above roads to give instructions or provide information to road users	highway shield, shield, highway marker, motorway sign, road marker, route marker, trail blazer	CommonsMedia	14,837
P15	route map	image of route map at Wikimedia Commons	schema, highway map, map of route, metro map, railroad map, railway map, road atlas, road map, street map, subway map, transit map, underground map	CommonsMedia	19,371
P16	highway system	system (or specific country specific road type) of which the highway is a part	transport network, network of routes, part of network, road type, routes system, system of routes	WikibaseItem	39,952
P17	country	sovereign state of this item; don't use on humans	state, land, sovereign state, host country	WikibaseItem	12,016,889
P18	image	image of relevant illustration of the subject; if available, use more specific properties (sample: coat of arms image, locator map, flag image, signature image, logo image)	illustration, screen capture, screenshot, still, drawing, portrait, photo, picture, diagram, img, Commons image, Image on	CommonsMedia	Display a menu

# Wikidata Data Modeling

# About: Dianne Feinstein

An Entity of Type : [person](#), from Named Graph : <http://dbpedia.org>, within Data Space : dbpedia.org

Dianne Goldman Berman Feinstein (/fainstain/; born Dianne Emiel Goldman; June 22, 1933) is the senior United States Senator from California. A member of the Democratic Party, she has served in the Senate since 1992. She also served as the 38th Mayor of San Francisco from 1978 to 1988.

Property	Value	rdf:type
<a href="#">dbo:abstract</a>	<ul style="list-style-type: none"> <li>Dianne Goldman Berman Feinstein (/fainstain/; born Dianne Emiel Goldman; June 22, 1933) is the senior United States Senator from California. A member of the Democratic Party, she has served in the Senate since 1992. She also served as the 38th Mayor of San Francisco from 1978 to 1988.</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">owl:Thing</a></li> <li><a href="#">foaf:Person</a></li> <li><a href="#">dbo:Person</a></li> <li><a href="#">dul:Agent</a></li> <li><a href="#">dul:NaturalPerson</a></li> <li><a href="#">wikidata:Q215627</a></li> <li><a href="#">wikidata:Q24229398</a></li> <li><a href="#">wikidata:Q5</a></li> <li><a href="#">dbo:Agent</a></li> </ul>
<a href="#">is dbo:afterElection of</a>	<ul style="list-style-type: none"> <li><a href="#">dbr:United_States_Senate_special_election_in_California,_2000</a></li> <li><a href="#">dbr:United_States_Senate_election_in_California,_2000</a></li> <li><a href="#">dbr:United_States_Senate_election_in_California,_1998</a></li> <li><a href="#">dbr:United_States_Senate_election_in_California,_2002</a></li> <li><a href="#">dbr:United_States_Senate_election_in_California,_2004</a></li> </ul>	<ul style="list-style-type: none"> <li><a href="#">dbo:OfficeHolder</a></li> </ul>
<a href="#">is dbo:alongside of</a>	<ul style="list-style-type: none"> <li><a href="#">dbr:Barbara_Boxer</a></li> <li><a href="#">dbr:Alan_Cranston</a></li> </ul>	<ul style="list-style-type: none"> <li><a href="#">schema:Person</a></li> <li><a href="#">umbel-rc:PersonWithOccupation</a></li> <li><a href="#">yago:WikicatFemaleUnitedStatesSenators</a></li> <li><a href="#">yago:WikicatJewishAmericanMayors</a></li> <li><a href="#">yago:WikicatJewishUnitedStatesSenators</a></li> <li><a href="#">yago:WikicatStanfordLawSchoolAlumni</a></li> <li><a href="#">yago:WikicatStanfordUniversityAlumni</a></li> <li><a href="#">yago:Adult109605289</a></li> <li><a href="#">yago:Advocate109774783</a></li> </ul>
<a href="#">is dbo:before of</a>	<ul style="list-style-type: none"> <li><a href="#">dbr:Art_Agnos</a></li> </ul>	
<a href="#">is dbo:beforeElection of</a>	<ul style="list-style-type: none"> <li><a href="#">dbr:United_States_Senate_election_in_California,_2000</a></li> <li><a href="#">dbr:United_States_Senate_election_in_California,_1998</a></li> <li><a href="#">dbr:United_States_Senate_election_in_California,_2002</a></li> <li><a href="#">dbr:United_States_Senate_election_in_California,_2004</a></li> </ul>	

# Dianne Feinstein (Q230733)

Dianne Goldman Berman Feinstein | Dianne Emiel Goldman

United States Senator from California

**instance of:** Dianne Feinstein is a(n) **human**

Human relationships

**type**

Own statements

date of birth  
1933-06-22

occupation

politician (person involved in politics, person

family name

Feinstein (fa

**occupation**

From related entities

spouse

Richard C. Blum (American politician)

start time : 1980-01-20

## Statements

Own statements

From related entities

work location

Washington, D.C. (capital city of the United States)

member of political party

Democratic Party (political party in the United States)

languages spoken, written or signed

English (West Germanic language originating in England with linguistic roots in French, German and Vulgar Latin)

position held

19 statements >

United States senator (member of the United States Senate)

parliamentary term : 115th United States Congress (meeting of the legislative branch of the United States federal government)

parliamentary group : Democratic Party (political party in the United States)

start time : 2017-01-03

end time : 2019-01-03

electoral district : California (constituency of the United States Senate)

elected in : 2012 United States Senate elections (United States Senate election of 2012)

**position held**

United States senator (member of the United States Senate)

parliamentary term : 114th United States Congress (2015–2017 legislative term)

parliamentary group : Democratic Party (political party in the United States)

start time : 2015-01-03

# DBpedia Class Hierarchy (Person)

<http://mappings.dbpedia.org/server/ontology/classes/>



# Wikidata Models Use Roles

type

instance of: Dianne Feinstein is a(n) **human**

occupation role

occupation

politician (person involved in politics, person in government)

Qualifiers used to provide context for the roles

position held role

position held

19 statements ➔

United States senator (member of the United States Senate  
parliamentary term : 115th United States Congress (meeting of the United States Congress)  
parliamentary group : Democratic Party (political party in the United States)  
start time : 2017-01-03  
end time : 2019-01-03  
electoral district : California (constituency of the United States Senate)  
elected in : 2012 United States Senate elections (United States Senate election)

# Wikidata Occupations Hierarchy

```
D22ML-PSZEKELY:~ pedroszekely$ wd summary Q702269  
id Q702269
```

109,566 subclasses of professional (Q702269)

Label professional

Description person who is paid to undertake a specialized set of tasks and to complete them for a fee

instance of (P31): occupation (Q12737077)

subclass of (P279): worker (Q327055)

```
D22ML-PSZEKELY:~ pedroszekely$ wdtaxonomy -c Q82955
```

- politician (Q82955) •113 ×20 ↑
  - president (Q30461) •136 ×8 ↑↑
  - Provincial governor (of the Ming and Qing dynasties) (Q56911) •8 ↑
  - minister (Q83307) •82 ×38 ↑↑
  - Genrō (Q254907) •20
  - independent politician (Q327591) •52
  - prefect (Q371909) •33 ↑↑
    - prefect (Q1285463) •12 ×2 ↑
    - sub-prefect (Q3382119) •4 ×1 ↑↑↑
  - statesperson (Q372436) •46
    - posadnik (Q2587924) •15 ↑↑↑
  - cacique (Q599898) •27 ↑
  - party secretary (Q836971) •8 ×1
  - pretender (Q845929) •28
  - ??? (Q1021222) •1 ↑
  - ruler (Q1097498) •9 ×8 ↑↑
  - Deputy mayor (Q1207353) •2 ↑
  - prefect (Q1285463) •12 ×2 ↑

politician (Q82955) hierarchy (59,421 subclasses)

# Pluto Is Instance Of ???

DBpedia    Browse using ▾    Formats ▾

## About: Pluto

An Entity of Type : [planet](#), from Named Graph : <http://dbpedia.org>, within Data Space : [dbpedia.org](#)

Pluto (minor-planet designation: 134340 Pluto) is a dwarf planet in the Kuiper belt, a ring of bodies orbiting the Sun beyond the orbit of Neptune. It was the first Kuiper belt object to be discovered. It is the largest and second-most-massive known dwarf planet in the solar system.

Dbpedia:  
Pluto is a planet

rdf:type

- owl:Thing
- dbo:Place
- dbo:Location
- wikidata:Q634
- dbo:CelestialBody
- dbo:Planet
- schema:Place
- umbel-rc:Planet
- yago:WikicatTrans-NeptunianObjects

Wikidata:  
- Pluto was a planet until 2006-09-13  
- Since 2006-09-13 it is a trans-Neptunian object

## Pluto (Q339)

(134340) Pluto | Sol j | 134340 Pluto | (134340) Pluto nan

planet in the Solar System

end time : 2006-09-13

start time : 2006-09-13  
statement is subject of : IAU definition of planet

instance of: Pluto is a(n) [planet](#) [trans-Neptunian object](#), [plutino](#), [dwarf planet](#) [plutoид](#)

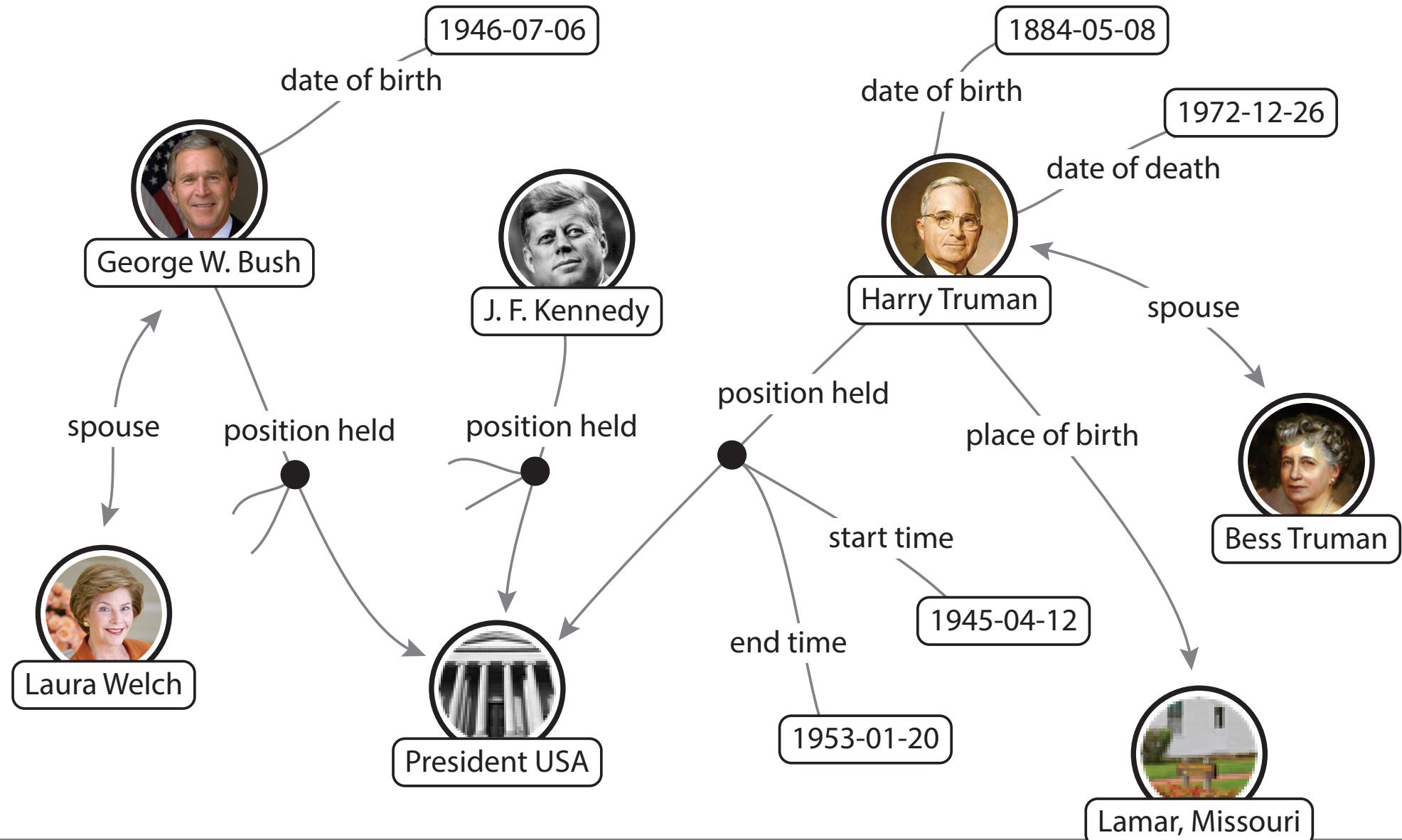
deprecated

Statements

preferred

# RDF Data Model

# Edges Are Statements (Reification)



# Truthy Statements

**All statements with rank = preferred**

if there are any such statements

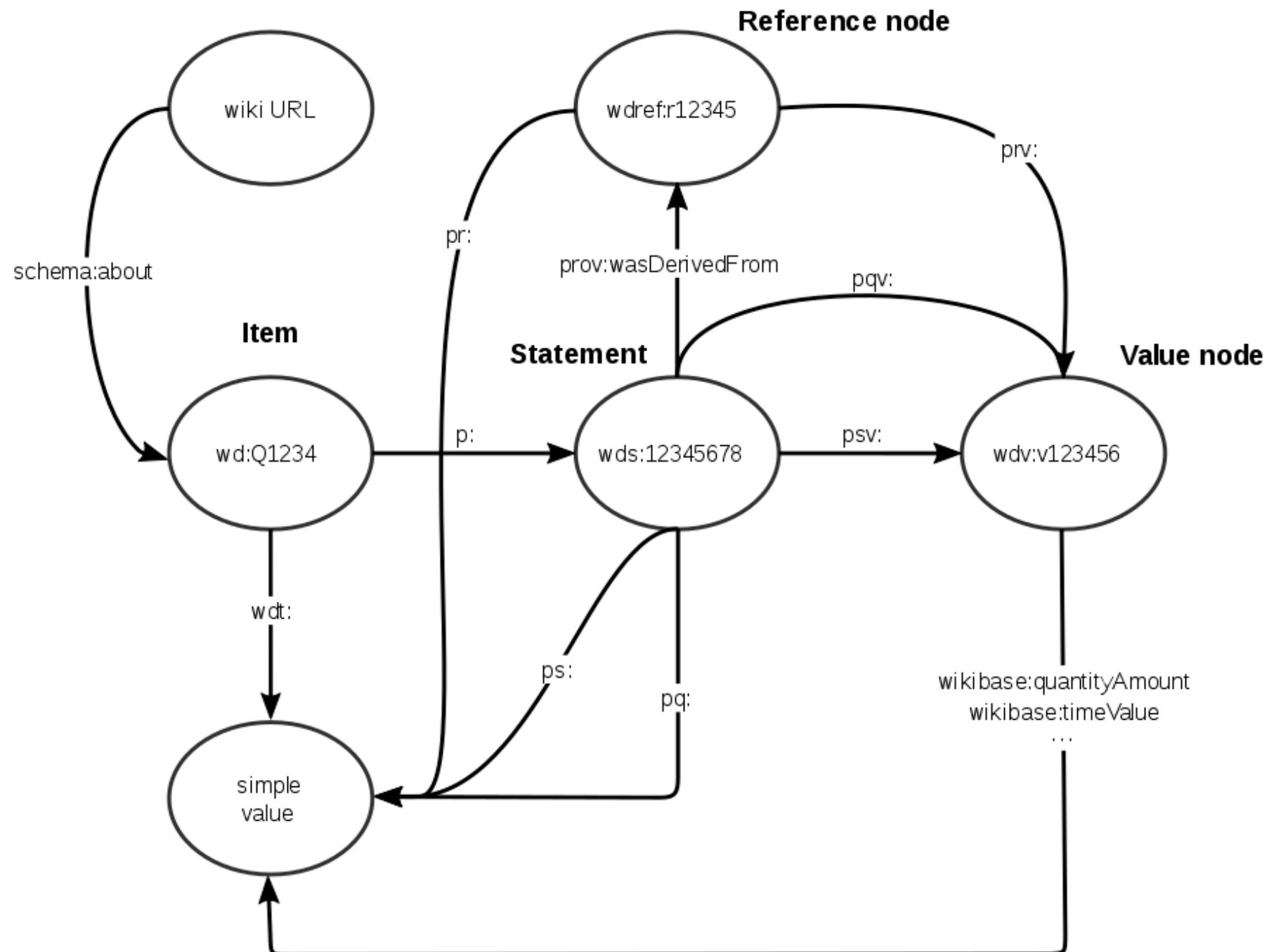
**All statements with rank = normal**

if there are no preferred statements

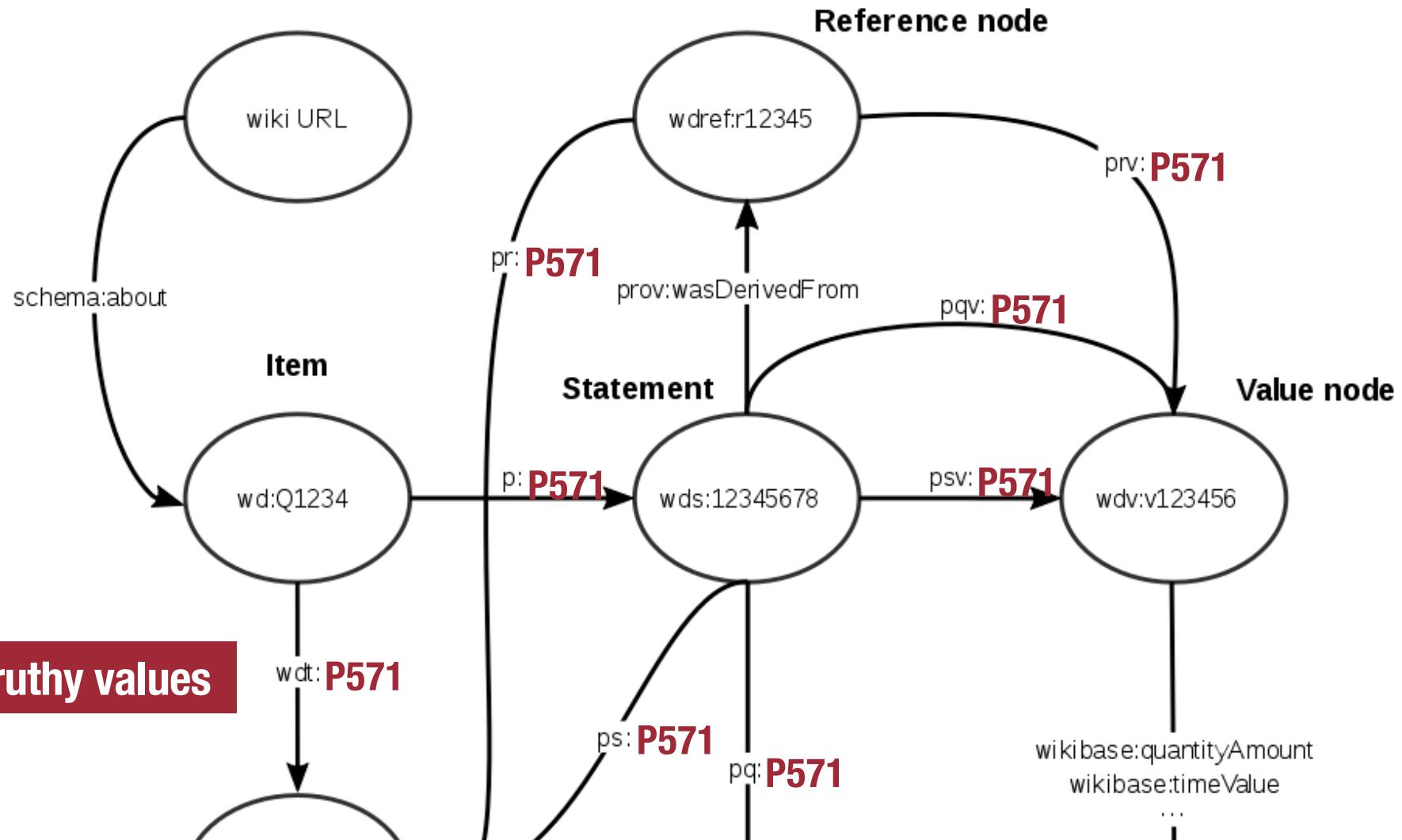
and there are statements with rank = normal

**Statements with rank = deprecated are not truthy**

# RDF Model



# RDF Model



# A property has different prefixes depending on where it is used

# Wikidata RDF Format

[https://www.mediawiki.org/wiki/Wikibase/Indexing/RDF\\_Dump\\_Format](https://www.mediawiki.org/wiki/Wikibase/Indexing/RDF_Dump_Format)

Item

```
wd:Q3 a wikibase:Item ;
  rdfs:label "The Universe"@en ;
  skos:prefLabel "The Universe"@en ;
  schema:name "The Universe"@en ;
  schema:description "The Universe is big"@en ;
  skos:altLabel "everything"@en ;
  wdt:P2 wd:Q3 ;
  wdt:P7 "value1", "value2" ;
  p:P2 wds:Q3-4cc1f2d1-490e-c9c7-4560-46c3cce05bb7 ;
  p:P7 wds:Q3-24bf3704-4c5d-083a-9b59-1881f82b6b37,
    wds:Q3-45abf5ca-4ebf-eb52-ca26-811152eb067c .
```

# RDF Representation

```
wds:Q3-24bf3704-4c5d-083a-9b59-1881f82b6b37 a  
wikibase:Statement, wikibase:BestRank ;  
    ps:P2 wd:Q3 ;  
    wikibase:rank wikibase:PreferredRank ;  
    pq:P8 "-13000000000-01-01T00:00:00Z"^^xsd:dateTime ;  
    pqv:P8 wdv:382603eaa501e15688076291fc47ae54 ;  
    prov:wasDerivedFrom  
wdref:87d0dc1c7847f19ac0f19be978015dfb202cf59a,  
    wdref:d95dde070543a0e0115c8d5061fce6754bb82280 .
```

Statement

# RDF Representation

```
wds:Q3-24bf3704-4c5d-083a-9b59-1881f82b6b37 a  
wikibase:Statement, wikibase:BestRank ;  
    ps:P2 wd:Q3 ;  
    wikibase:rank wikibase:PreferredRank ;  
    pq:P8 "-13000000000-01-01T00:00:00Z"^^xsd:dateTime ;  
    pqv:P8 wdv:382603eaa501e15688076291fc47ae54 ;  
    prov:wasDerivedFrom  
wdref:87d0dc1c7847f19ac0f19be978015dfb202cf59a,  
    wdref:d95dde070543a0e0115c8d5061fce6754bb82280 .
```

Statement

```
wdv:b74072c03a5ced412a336ff213d69ef1 a wikibase:TimeValue ;  
    wikibase:timeValue "+1976-01-12T00:00:00Z"^^xsd:dateTime ;  
    wikibase:timePrecision "11"^^xsd:integer ;  
    wikibase:timeTimezone "0"^^xsd:integer ;  
    wikibase:timeCalendarModel  
<http://www.wikidata.org/entity/Q1985727> .
```

Time Value

# RDF Representation

```
wds:Q3-24bf3704-4c5d-083a-9b59-1881f82b6b37 a  
wikibase:Statement, wikibase:BestRank ;  
    ps:P2 wd:Q3 ;  
    wikibase:rank wikibase:PreferredRank ;  
    pq:P8 "-13000000000-01-01T00:00:00Z"^^xsd:dateTime ;  
    pqv:P8 wdv:382603eaa501e15688076291fc47ae54 ;  
    prov:wasDerivedFrom  
wdref:87d0dc1c7847f19ac0f19be978015dfb202cf59a,  
    wdref:d95dde070543a0e0115c8d5061fce6754bb82280 .
```

Statement

```
wdv:b74072c03a5ced412a336ff213d69ef1 a wikibase:TimeValue ;  
    wikibase:timeValue "+1976-01-12T00:00:00Z"^^xsd:dateTime ;  
    wikibase:timePrecision "11"^^xsd:integer ;  
    wikibase:timeTimezone "0"^^xsd:integer ;  
    wikibase:timeCalendarModel  
<http://www.wikidata.org/entity/Q1985727> .
```

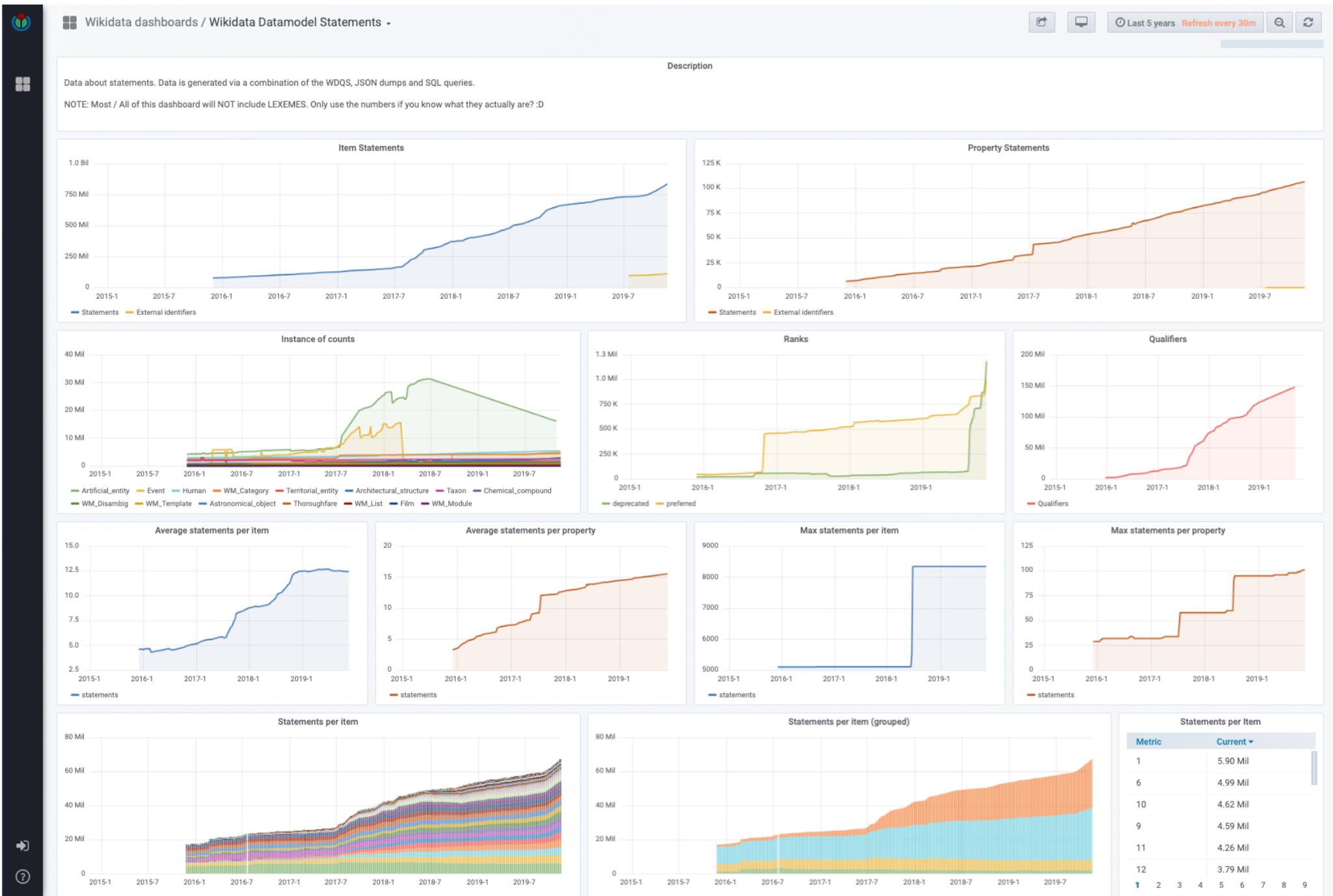
Time Value

```
v:cb213eea7a0b90d1d7f65c6eabfab9da a wikibase:QuantityValue ;  
    wikibase:quantityAmount "+123"^^xsd:decimal ;  
    wikibase:quantityUpperBound "+124"^^xsd:decimal ;  
    wikibase:quantityLowerBound "+122"^^xsd:decimal ;  
    wikibase:quantityUnit <http://www.wikimedia.org/entity/Q199> .
```

Quantity  
Value

# Wikidata Statistics

<https://grafana.wikimedia.org/d/000000175/>



# Google Trends

≡ Google Trends Explore



● wikidata  
Search term

+ Compare

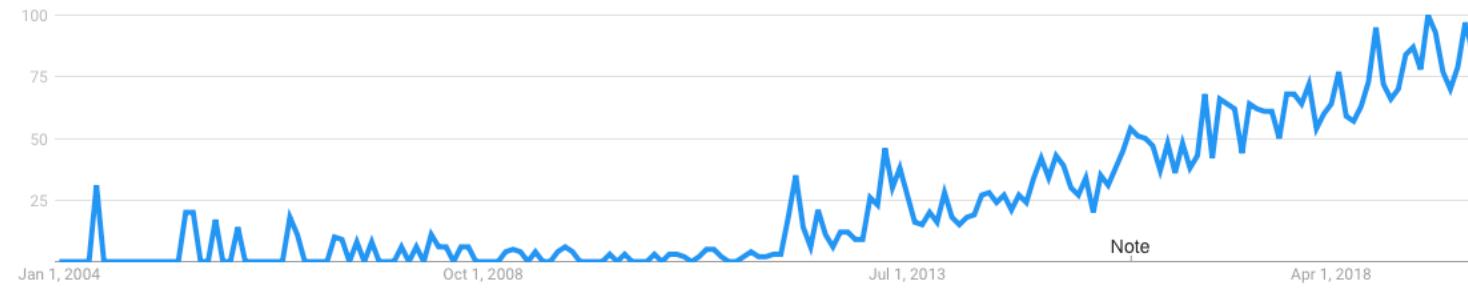
Worldwide ▾

2004 - present ▾

All categories ▾

Web Search ▾

Interest over time ?



Interest by region ?

Region ▾ Download Share Copy



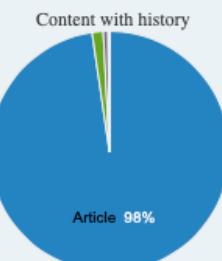
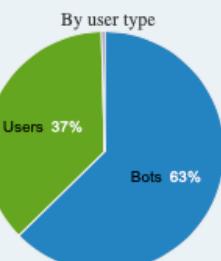
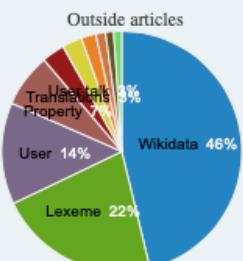
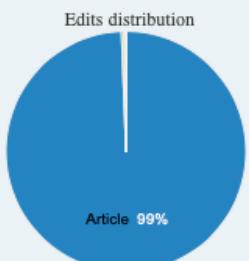
1	Switzerland	100	
2	Germany	76	
3	Austria	68	
4	Denmark	63	
5	Israel	61	

Statistics wikidata 2004 - 2019

2019-11-17

### Contents

	Articles	Total
Pages	61,020,398	64,050,029
Edits	1,037,514,922	1,045,552,191
Actual content	1219 G	1221 G
Content with history	17133 G	17538 G

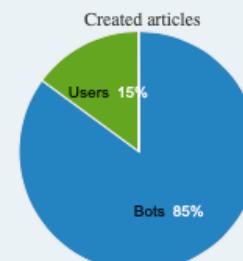
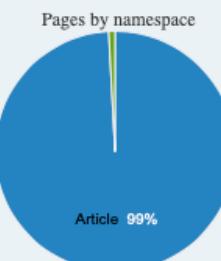
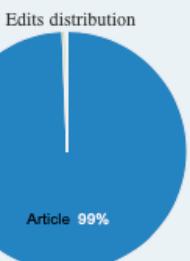


### Users

	Actives/month	Total
Users	20,242	302,022
5+ edits	9,322	109,938
100+ edits	1,937	23,298
1000+ edits	432	7,223

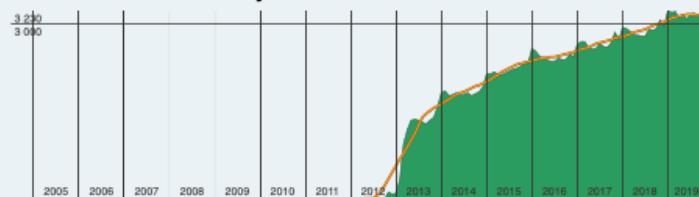
### Average by day

	Articles	All pages
Edits	709,087	712,682
Creations	45,339	46,311
Content	847 M	848 M



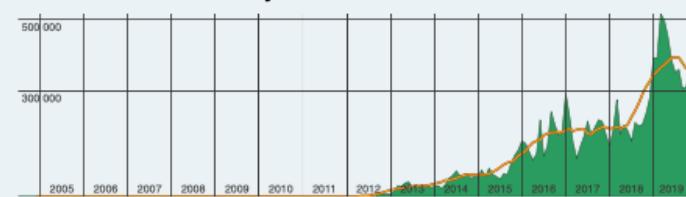
### Users / day

2019	3,171	+9.8 %
2018	2,889	+8.5 %
2017	2,662	+9.3 %
2016	2,436	+10 %
2015	2,209	+22 %
2014	1,818	+60 %
2013	1,136	>500 %



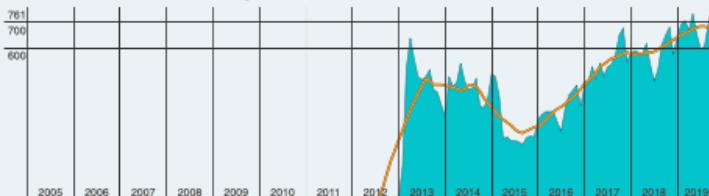
2019	392,461	+92 %
2018	204,708	+7.6 %
2017	190,323	+18 %
2016	161,304	+114 %
2015	75,398	+52 %
2014	49,651	+83 %
2013	27,119	>500 %

### User edits / day



### IP / day

2019	681	+17 %
2018	582	+8.2 %
2017	538	+49 %
2016	360	+21 %
2015	297	-32 %
2014	437	+3.4 %
2013	423	>500 %



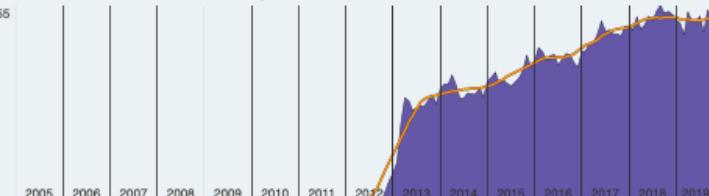
2019	2,744	+25 %
2018	2,205	+30 %
2017	1,691	+8.4 %
2016	1,559	+25 %
2015	1,246	-2.3 %
2014	1,275	+14 %
2013	1,119	>500 %

### IP edits / day



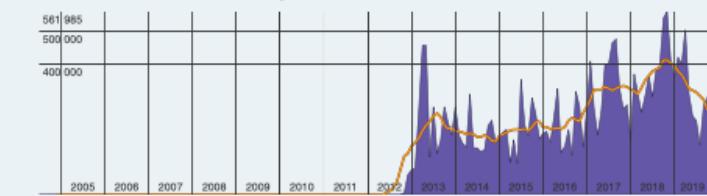
### Bots / day

2019	51	-1.1 %
2018	51	+11 %
2017	46	+15 %
2016	40	+15 %
2015	35	+12 %
2014	31	+29 %
2013	24	>500 %

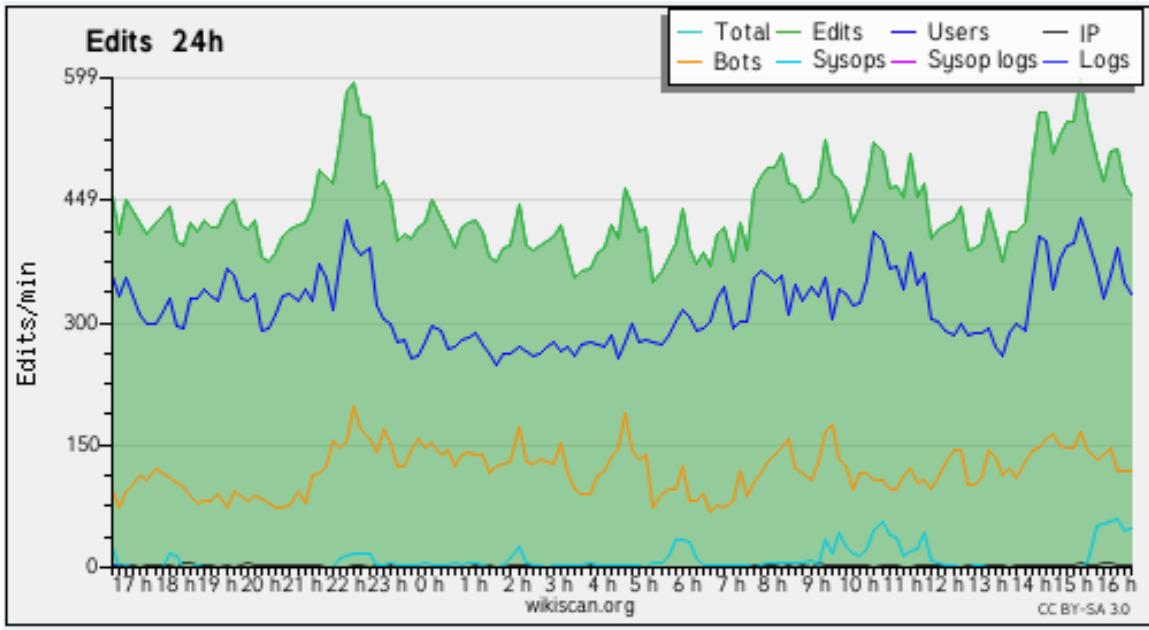


2019	319,103	-12 %
2018	363,948	+9.5 %
2017	332,476	+64 %
2016	203,112	+1.7 %
2015	199,775	+7.9 %
2014	185,117	-18 %
2013	224,259	>500 %

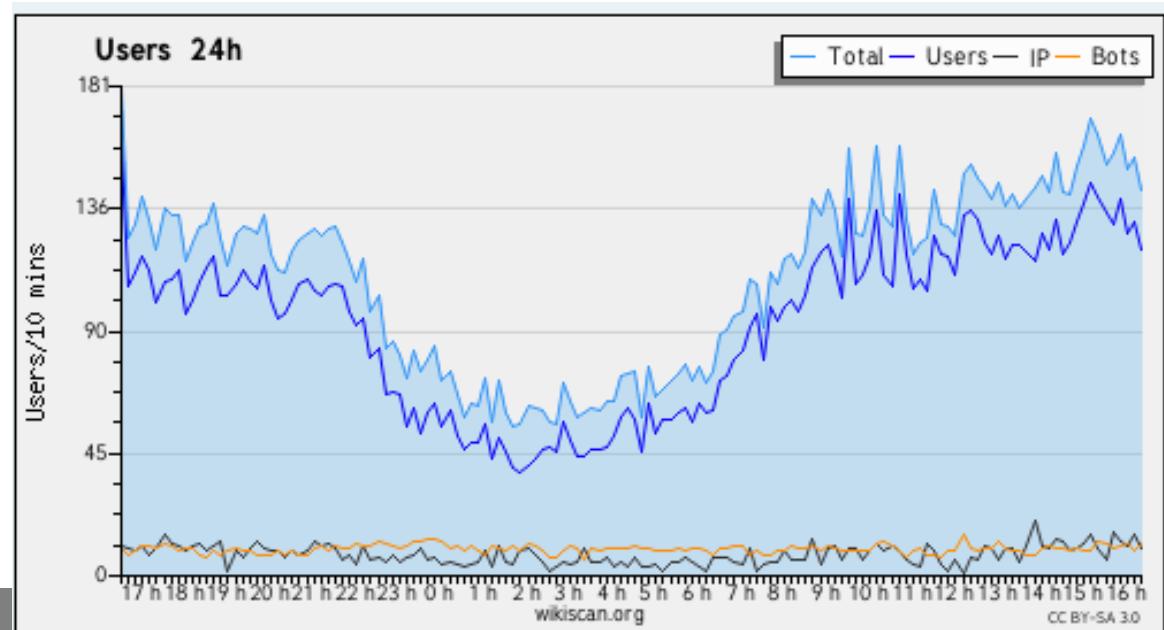
### Bot edits / day



# <https://wikidata.wikiscan.org/hours>



~10 edits/second





# Wikidata:Status updates/2019 11 11

< Wikidata:Status updates

This is the Wikidata summary of the week before 2019-11-11.

## Contents [hide]

- 1 Discussions
- 2 Events
- 3 Tool of the week
- 4 Other Noteworthy Stuff
- 5 Did you know?
- 6 Development
- 7 Monthly Tasks

[https://www.wikidata.org/wiki/Wikidata:Status\\_updates](https://www.wikidata.org/wiki/Wikidata:Status_updates)

## Discussions [ edit | edit source ]

- New request for comments: Wikidata to use data schemas to standardise data structure on a subject

## Events [ edit | edit source ]

- Past: Wikidata office hour ([notes](#))
- Past: "Using Wikidata to describe the structure of a book" Webinar by Martin Poulter for LD4P2 project ([Video](#)), ([Slides](#)), ([Notes](#))
- Upcoming: [Wikidata Workshop OpenRefine](#) in Prague on 12 November
- Upcoming: [Online editathon in Swedish](#) 17 November

## Tool of the week [ edit | edit source ]

- [Speedpatrolling](#) is a tool to easily patrol Wikidata recent changes, typically on mobile devices.

## Other Noteworthy Stuff [ edit | edit source ]

- Wikipedia Personality Infobox in [Catalan](#) and [French](#) now displays the Heritage Institution in charge of their archives via [P485 \(archives at\)](#).
- The [Discord server Wikimedia Community](#) has now a [Wikidata](#) channel.
- [@Wikipedia](#) talks about [@Wikidata](#) by GerardM

## Did you know? [ edit | edit source ]

- Newest properties:
  - General datatypes: [landscape architect](#), [charge conjugation quantum number](#), [statement is regarded as spoiler for](#), [room number](#), [scope and content](#)
  - External identifiers: [startrek.com Database ID](#), [Alfred P. Sloan Foundation Grant ID](#), [Chinese Professional Baseball League player ID](#), [Software Preservation Society ID](#), [Sega Retro ID](#), [classicamiga ID](#), [Filmový přehled film ID](#), [Filmový přehled person ID](#), [Gaming-History company ID](#), [SK cinema authority ID](#), [SK cinema film ID](#), [CA PROP 65 ID](#), [ePSD identifier](#), [Czech cadastral area ID](#), [dp.ru company ID](#), [Fortuna liga player ID](#), [MEA Indian Mission ID](#), [AaRC person ID](#), [MIC market code](#)
- New property proposals to review:

# Keeping Up With New Developments

[https://www.wikidata.org/wiki/Wikidata:Development\\_plan](https://www.wikidata.org/wiki/Wikidata:Development_plan)



Project page Discussion

English Szeke Talk Preferences Beta Watchlist Contributions Log out

Read Edit Edit source View history



Search Wikidata



Shortcuts: WD:DP, WD:DEVPLAN

## Wikidata:Development plan

Development plan

Usability and usefulness

Status updates

Development input

Contact the development team

### Wikidata and Wikibase roadmap for 2019 [\[ edit \]](#) [\[ edit source \]](#)

You will find below the roadmap of the Wikidata development team (Wikimedia Germany) for Wikidata and [Wikibase](#) for 2019. If you have any question or comment, feel free to write on [Wikidata:Contact the development team](#).

Please note that the roadmap presents the main projects that the development team will work on during 2019. Things like maintenance of the software and fixing pressing bugs are not mentioned in the roadmap, but will be included in the workflow over the year.

#### Overview of the roadmap [\[ edit \]](#) [\[ edit source \]](#)

The most up-to-date version of the roadmap can be found on an online project management tool: [view in blocks](#), [view in timeline](#). You can click on the different items to see further information, like a description or planned start date.

You can also find screenshots below:

#### WIKIDATA ROADMAP - ROUGH OVERVIEW 2019

##### INCREASE DATA QUALITY & TRUST

##### BUILD OUT THE ECOSYSTEM

##### ENCOURAGE MORE DATA USE

##### ENABLE MORE DIVERSE DATA & USERS

##### OTHER

basic ShEx support

signed statements  
(signing statements not linking to other entities)

improved reference support (Citoid)

automated adding of references based on semantic markup

federation (ontology reuse)

Wikibase website

develop a partnership model around Wikibase

define the landscape and segments of Wikibase users

editing Wikidata from Wikipedia and co (client editing)

query builder

better mobile web support (viewing terms)

better mobile web support (editing terms)

WikidataCon

storage infrastructure improvements

Main page  
Community portal  
Project chat  
Create a new Item  
Create a new Lexeme  
Recent changes  
Random item  
Query Service  
Nearby  
Help  
Donate

Print/export

Create a book  
Download as PDF  
Printable version

Tools

What links here  
Related changes  
Special pages  
Permanent link  
Page information

In Wikipedia

Add links

# Wikidata Summary

<b>Free</b>	<b>&gt; 60M items</b>
<b>Collaborative</b>	<b>&gt; 6,000 properties</b>
<b>Multilingual</b>	<b>&gt; 2,000,000 classes</b>
<b>A secondary database</b>	<b>&gt; 4,000 external id types</b>
<b>Collecting structured data</b>	
<b>Support for Wikimedia wikis</b>	
<b>Anyone in the world</b>	<b>Model using statements</b>
	<b>Subject, property, value</b>
	<b>Qualifiers, references</b>