

Explore, Analyse and Translate Multilingual Wikidata Properties

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Outline

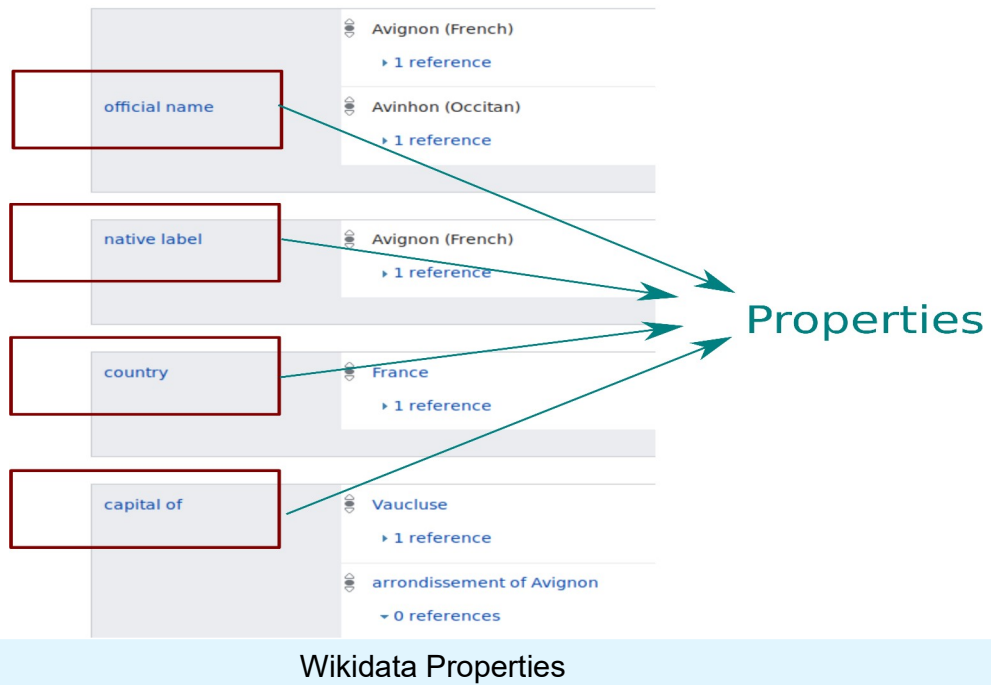
1. Introduction
2. WDPProp: Wikidata Property Analysis
3. Towards a coarser analysis on property translation
 - Data Collection
 - Analysis Results
4. Conclusion and Future Works

1. Introduction

- Wikidata
 - Started in 2012
 - is free, open, linked, structured, collaborative and **multilingual** knowledge base
 - From multi-(sub)domain multilingual Wikipedia sites to a single-domain multilingual website
- Collaborative Multilingual Multi-domain Ontology development
 - Property proposal, discussion and voting
 - **Property creation and translation**
 - Property usage
 - (Property deletion)

1. Introduction

Wikidata Properties



1. Introduction

Wikidata Property: Labels and descriptions

country (P17)

sovereign state of this item; don't use on humans

sovereign state | state | land

▼ In more languages Configure

Language	Label	Description
English	country	sovereign state of this item; don't use on humans
French	pays	État souverain de cet élément
Spanish	país	estado soberano de este elemento
German	Staat	souveräner Staat, in dem sich das Objekt befindet

All entered languages

Language Label Description

Data type

Item

<https://www.wikidata.org/wiki/Property:P17>

Example Wikidata Property: country (P17)

1. Introduction

Wikidata Property: Labels and descriptions

Property [Discussion](#)

official website (P856)


URL of the official homepage of an item (current or former) [if the homepage changes, add an additional statement with preferred rank. Do not remove the former URL]
site | web address | home page | url official | homepage | official page | official web site | website (official) | web site | official URL | home page (official) | official site | website | URL (official) | homepage (official) | official homepage | www site (official) | site official | website official | site (official)

[In more languages](#)

Data type

URL

Statements

instance of	 Wikidata property for items about works
	0 references

Example Wikidata Property: official website (P856)

1. Introduction

Properties: Labels, description and aliases

instance of ^(P31)

that class of which this subject is a particular example and member (subject typically an individual member with a proper name label); different from P279; using this property as a qualifier is deprecated—use P2868 or P3831 instead
is a | is an | has class | has type | is a particular | is a specific | is an individual | is a unique | is an example of | member of | unique individual of | distinct member of | non-type member of | subclassable example of | uninstanciable instance of | unclassifiable member of | not a type but is instance of | unsubtypeable particular | unitary element of class | distinct element of | distinct individual member of | occurrence of | rdf:type | type

▼ In more languages

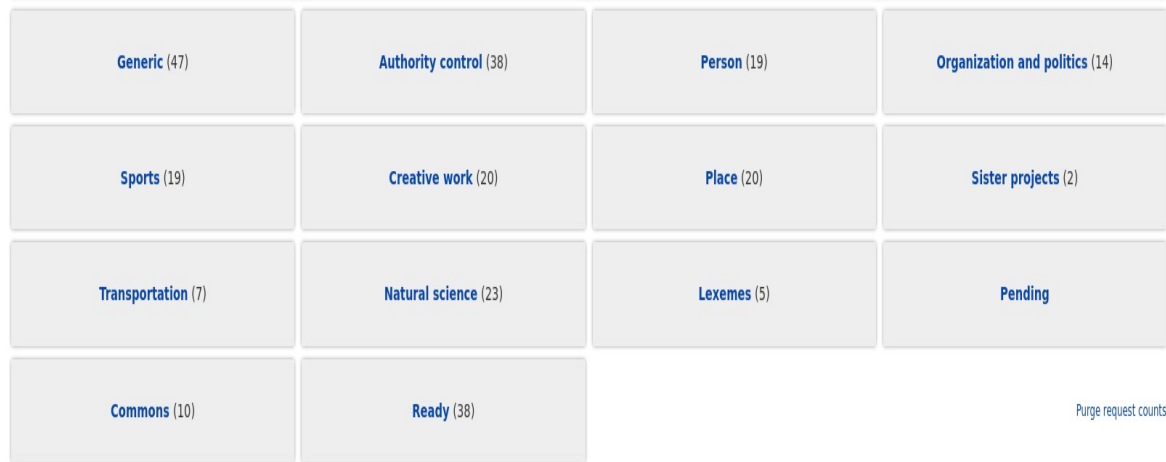
Configure

Language	Label	Description	Also known as
English	instance of	that class of which this subject is a particular example and member (subject typically an individual member with a proper name label); different from P279; using this property as a qualifier is deprecated—use P2868 or P3831 instead	is a is an has class has type is a particular is a specific is an individual is a unique is an example of member of unique individual of distinct member of non-type member of subclassable example of uninstanciable instance of unclassifiable member of not a type but is instance of unsubtypeable particular unitary element of class distinct element of distinct individual member of occurrence of rdf:type type

Labels, description and aliases of Property:P31 in English

1. Introduction

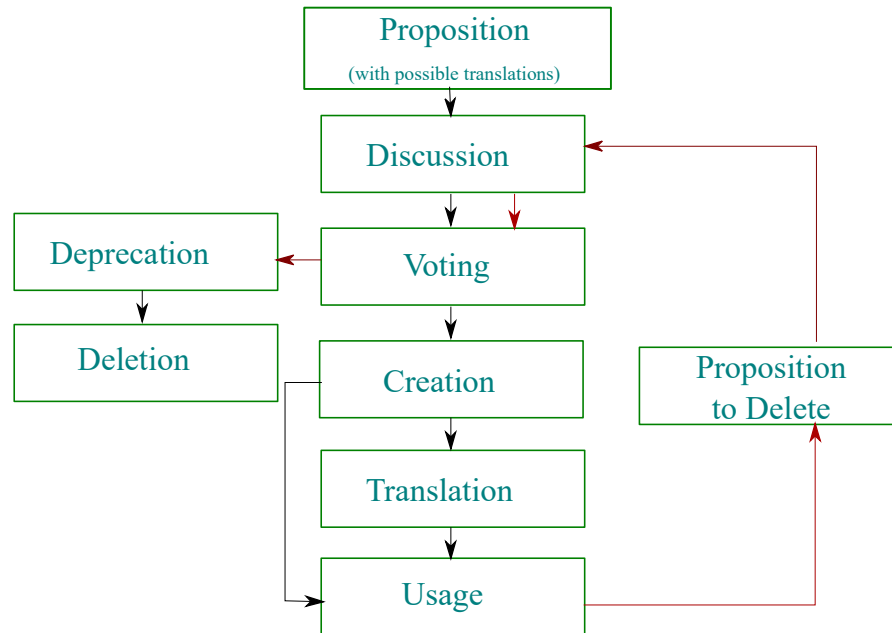
Wikidata Property: from Proposal to Usage



Property proposal and Creation

1. Introduction

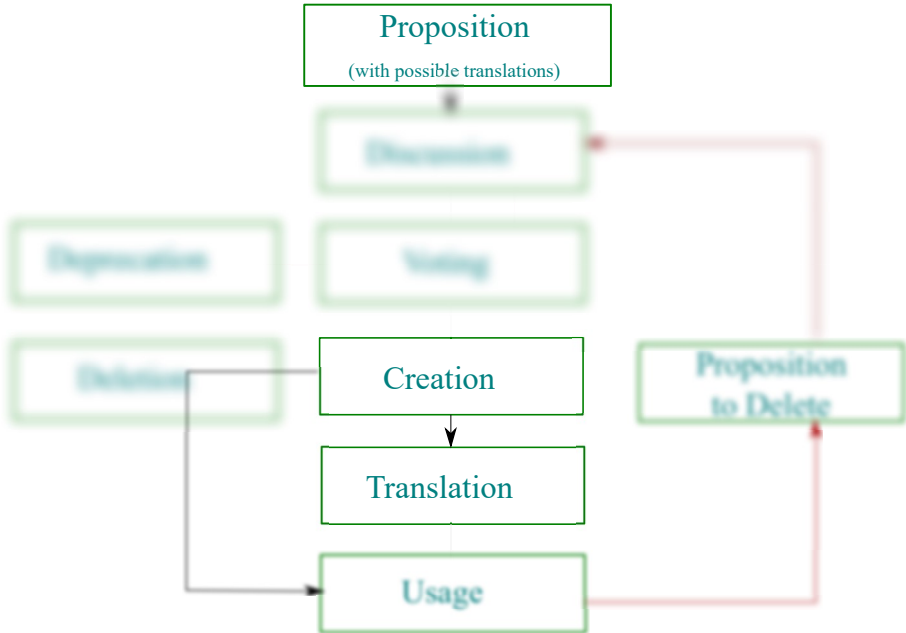
Wikidata Property: from Proposal to Usage



Property proposal, creation and usage on Wikidata

1. Introduction

Wikidata Property: Translation



Property Creation on Wikidata

1. Introduction

Wikidata Property: Missing descriptions

French	nature de l'élément	cet élément est un exemple spécifique de cette classe qui en précise la nature. Ne pas confondre avec la propriété P279 (sous-classe de)	est un est une instance de ∈ a pour classe est un exemple de
Northern Frisian	as en	No description defined	∈
Western Frisian	is in	No description defined	∈
Irish	sample de	No description defined	∈
Galician	é un/unha	o elemento é unha instancia doutro elemento	∈
Swiss German	isch e	No description defined	∈
Gujarati	બેલગ	આ ટીપ આ વસ્તુનું એક ઉદાહરણ છે. આ વસ્તુનું એક ઉદાહરણ છે.	આ વસ્તુ છે એક ઉદાહરણ છે.
Hausa	iri	No description defined	irin
Hakka Chinese	he yit chak	No description defined	

Missing multilingual descriptions on Property P31

1. Introduction

Wikidata Properties: Missing descriptions


Odia	ଦୁଷ୍ଟାନ୍ତ	No description defined	ଉଦାହରଣ
Punjabi	ਕੀ ਹੈ?	No description defined	∈
Pampanga	alimbawa ning	No description defined	metung yang
Picard	est un	No description defined	∈
Polish	jest to	stanowi przykład (jest elementem) danej klasy	∈
Pashto	د بېلګې په توګه	No description defined	
Portuguese	instância de	este item é uma instância deste outro item	é um é uma natureza do elemento ∈ é membro de possui classe é um indivíduo é um exemplo de

Missing Descriptions

Missing multilingual descriptions on Property P31

1. Introduction


Wikidata Properties: English

	<p>MediaWiki website</p> <p>→ 1 reference</p>
instance of	<p>website</p> <p>▼ 0 references</p>
part of	<p>Semantic Web</p> <p>▼ 0 references</p> <p>Linked Open Data cloud diagram</p> <p>→ 1 reference</p>
logo image	 <p>Wikidata-logo-en.svg 1,052 × 744; 3 KB</p> <p>language of work or name: English, multiple languages</p> <p>statement is subject of: Wikidata logo</p>

Wikidata (English)

1. Introduction

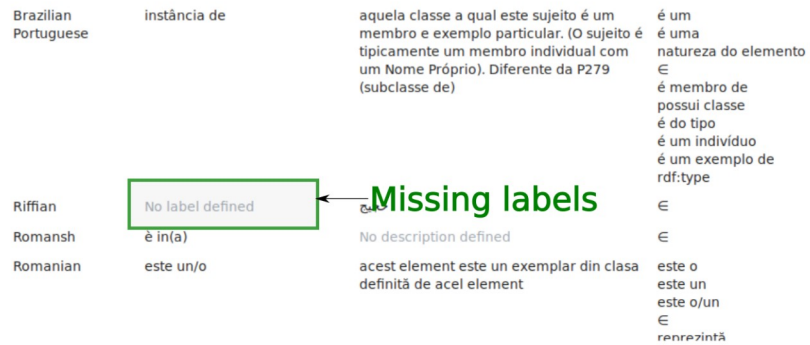
Wikidata Properties: Afar

instance of <i>English</i>	<ul style="list-style-type: none">▶ 1 reference <hr/> <ul style="list-style-type: none">🔍 website <i>English</i> <hr/> <ul style="list-style-type: none">▼ 0 references
part of <i>English</i>	<ul style="list-style-type: none">🔍 Semantic Web <i>English</i> <hr/> <ul style="list-style-type: none">▼ 0 references <hr/> <ul style="list-style-type: none">🔍 Linked Open Data cloud diagram <i>English</i> <hr/> <ul style="list-style-type: none">▶ 1 reference
logo image <i>English</i>	 <p>Wikidata-logo-en.svg 1,052 × 744; 3 KB</p> <ul style="list-style-type: none">language of work or name <i>English</i>English <i>English</i>multiple languages <i>English</i>statement is subject of <i>English</i>Wikidata logo <i>English</i> <hr/> <ul style="list-style-type: none">▼ 0 references

Wikidata (Afar)

1. Introduction

Wikidata Properties: Missing labels



Missing multilingual labels on Property P31

2. WDPProp: Wikidata Property Analysis

WDPProp

1. WDPProp:

- Collaborative Multilingual Multi-domain Ontology development: is it possible to achieve a truly multilingual experience?

2. Properties:

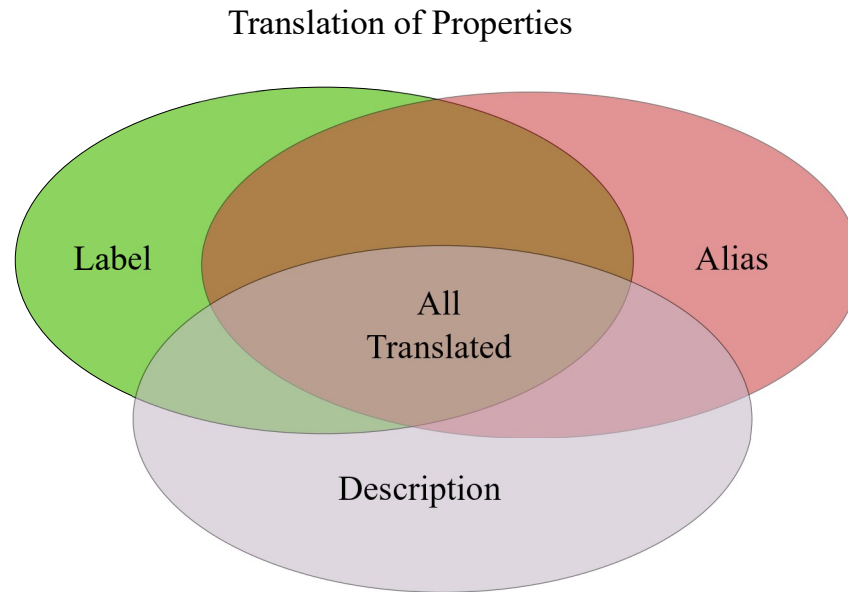
- Not so much influenced by bots!

3. Goals:

- Understanding Wikidata property proposal, creation and translation
- Available templates and their usage
- Providing real-time statistics to (multilingual) contributors

2. WDPProp: Wikidata Property Analysis

Towards 'Everything' about Wikidata properties



2. WDPProp: Wikidata Property Analysis

Towards 'Everything' about Wikidata properties

WDPProp

- Languages
- Data types
- Properties
- Property Classes
- Provenance
- Search
- Compare
- Property Discussion
- Wikiprojects
- About

Translation statistics by languages

- [Supported languages](#)
- [Translated Labels](#)
- [Translated Descriptions](#)
- [Translated Alias](#)
- [Overall Translation Statistics](#)
- [Missing Translation Statistics](#)

Navigate properties

- [Browse all properties](#)
- [Browse by datatype](#)

Information on Wikidata Properties

2. WDPProp: Wikidata Property Analysis

- WDPProp
 - Get real-time translation statistics
 - Navigate supported languages, properties, datatypes, classes
 - Compare translation statistics
 - Find available properties for an entity
 - Shows associated Wikidata SPARQL endpoints and Mediawiki API
 - Based on basic web technologies (HTML, Javascript, CSS)
- URL
 - <https://wdprop.toolforge.org/>
 - Source code: <https://github.com/johnsamuelwrites/wdprop>

2. WDPProp: Wikidata Property Analysis

Wikidata: Supported Languages

Supported Languages

Given below is the list of supported languages on Wikidata. Click on any language code below to see the current translation statistics of properties.

Total 319 languages

aa	ab	ace	ady	af	ak	am	an	ang	ar	arc	ary	arz	as
ast	atj	av	avk	awa	ay	az	azb	ba	ban	bar	bat-smg	bcl	be
be-tarask	be-x-old	bg	bi	bjn	bm	bn	bo	bpy	br	bs	bug	bxr	ca
cbk-zam	cdo	ce	ceb	ch	cho	chr	chy	ckb	co	cr	crh	cs	csb
cu	cv	cy	da	de	din	diq	dsb	dty	dv	dz	ee	el	eml
en	en-simple	en-x-simple	eo	es	eu	ext	fa	ff	fi	fiu-vro	fj	fo	fr
			frp	frr	fur	fy	ga	gag	gan	ger	gd	gl	glk
gn	gom	gor	got	gsw	gu	gv	ha	hak	haw	he	hi	hif	ho
hr	hsb	ht	hu	hyw	hz	ia	id	ie	ig	ii	ik	ilo	inh
io	is	it	iu	ja	jam	jbo	jv	ka	kaa	kab	kbd	kbp	kg
ki	kj	kk	kl	km	kn	ko	koi	kr	krc	ks	ksh	ku	kw
ky	la	lad	lb	lbe	lez	lfn	lg	li	lij	lld	lmo	ln	lo

Wikidata languages

2. WDPProp: Wikidata Property Analysis

Wikidata: Supported Languages

Afar

- [Property labels needing translation](#)
- [Property descriptions needing translation](#)
- [Property with no aliases](#)

Wikidata language: Afar

2. WDPProp: Wikidata Property Analysis

Wikidata: Supported Languages

Property labels needing translation

Total 8902 properties

P10	P101	P102	P103	P105	P106	P108	P109	P110	P111	P112	P113	P114	P115
P117	P118	P119	P121	P122	P123	P126	P127	P128	P129	P131	P135	P136	P137
P138	P14	P140	P141	P143	P144	P149	P15	P150	P154	P155	P156	P157	P158
P159	P16	P161	P162	P163	P166	P167	P169	P17	P170	P171	P172	P175	P176
P177	P178	P179	P18	P180	P181	P183	P184	P185	P186	P189	P19	P190	P193
P194	P195	P196	P197	P199	P20	P200	P201	P205	P206	P207	P208	P209	P21
P210	P212	P213	P214	P215	P217	P218	P219	P22	P220	P221	P223	P225	P227
P229	P230	P231											

Query

[Run Query on Wikidata.](#)

Afar: Property labels needing translation

2. WDPProp: Wikidata Property Analysis

Wikidata: Supported Languages

Property labels needing translation

Total 8902 properties

P10	P101	P102	P103	P105	P106	P108	P109	P110	P111	P112	P113	P114	P115
P117	P118	P119	P121	P122	P123	P126	P127	P128	P129	P131	P135	P136	P137
P138	P14	P140	P141	P143	P144	P149	P15	P150	P154	P155	P156	P157	P158
P159	P16	P161	P162	P163	P166	P167	P169	P17	P170	P171	P172	P175	P176
P177	P178	P179	P18	P180	P181	P183	P184	P185	P186	P189	P19	P190	P193
P194	P195	P196	P197	P199	P20	P200	P201	P205	P206	P207	P208	P209	P21
P210	P212	P213	P214	P215	P217	P218	P219	P22	P220	P221	P223	P225	P227
P229	P230	P231											

Query

[Run Query on Wikidata.](#)

Afar: Property labels needing translation

2. WDPProp: Wikidata Property Analysis

Wikidata: Supported Languages

Property descriptions needing translation

Total 8905 properties

P263	P264	P267	P269	P268	P271	P270	P272	P275	P274	P277	P276	P279	P278
P281	P282	P287	P286	P289	P291	P297	P296	P299	P298	P301	P300	P303	P305
P304	P306	P345	P344	P347	P349	P348	P351	P350	P353	P352	P355	P354	P356
P359	P358	P361	P360	P364	P367	P366	P369	P368	P371	P370	P373	P375	P374
P377	P376	P381	P380	P382	P393	P395	P397	P396	P399	P398	P400	P403	P402
P405	P404	P407	P406	P409	P408	P411	P410	P413	P412	P415	P414	P417	P416
P418	P421	P423	P425	P424	P427	P426	P429	P428	P433	P432	P435	P434	P437
P436	P439	P440											

Query

[Run Query on Wikidata.](#)

Afar: Property descriptions needing translation

2. WDPProp: Wikidata Property Analysis

Wikidata: Supported Languages

Properties with no aliases

Total 8902 properties

P263	P264	P267	P269	P268	P271	P270	P272	P275	P274	P277	P276	P279	P278
P281	P282	P287	P286	P289	P291	P297	P296	P299	P298	P301	P300	P303	P305
P304	P306	P345	P344	P347	P349	P348	P351	P350	P353	P352	P355	P354	P356
P359	P358	P361	P360	P364	P367	P366	P369	P368	P371	P370	P373	P375	P374
P377	P376	P381	P380	P382	P393	P395	P397	P396	P399	P398	P400	P403	P402
P405	P404	P407	P406	P409	P408	P411	P410	P413	P412	P415	P414	P417	P416
P418	P421	P423	P425	P424	P427	P426	P429	P428	P433	P432	P435	P434	P437
P436	P439	P440											

Query

[Run Query on Wikidata.](#)

Afar: Properties missing aliases

2. WDPProp: Wikidata Property Analysis

Wikidata: Supported Languages

English

- [Property labels needing translation](#)
- [Property descriptions needing translation](#)
- [Property with no aliases](#)

Property labels needing translation

Total 0 properties

Query

[Run Query on Wikidata.](#)

English: Property labels needing translation

2. WDPProp: Wikidata Property Analysis

Wikidata: Supported Languages

Property descriptions needing translation

Total 86 properties

P1052	P1221	P1531	P1586	P1689	P2127	P2201	P2231	P2298	P2327	P2329	P2328	P2345	P2382
P2467	P2488	P2490	P2898	P2954	P3324	P3327	P3456	P3469	P3494	P3592	P3956	P4907	P5063
P5288	P5320	P5441	P5501	P5517	P5579	P5804	P5807	P5809	P5808	P5863	P5903	P5902	P5926
P6069	P6095	P6117	P6134	P6304	P6413	P6526	P6542	P6664	P6688	P6793	P6813	P6979	P7366
P7414	P7667	P7677	P7720	P7864	P8171	P8245	P8244	P8281	P8323	P8322	P8384	P8405	P8497
P8515	P8563	P8562	P8666	P8697	P8769	P8768	P8792	P8796	P9126	P9494	P9510	P9544	P9573
P9574	P9582												

Query

[Run Query on Wikidata.](#)

English: Property descriptions needing translation

2. WDPProp: Wikidata Property Analysis

Wikidata: Supported Languages

Properties with no aliases

Total 4295 properties

P278	P347	P351	P350	P354	P367	P399	P417	P442	P458	P464	P470	P489	P491
P490	P497	P500	P505	P508	P517	P521	P523	P525	P524	P532	P537	P539	P543
P542	P545	P546	P550	P555	P557	P565	P567	P566	P568	P579	P589	P588	P593
P592	P594	P605	P617	P624	P628	P630	P632	P635	P634	P636	P639	P647	P650
P657	P656	P661	P668	P673	P674	P677	P680	P682	P684	P690	P693	P692	P695
P697	P699	P702	P705	P704	P711	P712	P715	P714	P731	P733	P744	P748	P756
P761	P762	P765	P772	P781	P780	P783	P785	P784	P787	P786	P788	P792	P795
P811	P817	P816											

Query

[Run Query on Wikidata.](#)

English: Properties missing aliases

2. WDPProp: Wikidata Property Analysis

Wikidata Properties

Existing Wikidata Properties

Total 8905 properties

P6	P10	P14	P15	P16	P17	P18	P19	P20	P21	P22	P25	P26	P27
P30	P31	P35	P36	P37	P38	P39	P40	P41	P47	P50	P51	P53	P54
P57	P58	P59	P61	P65	P66	P69	P78	P81	P84	P85	P86	P87	P88
P91	P92	P94	P97	P98	P101	P102	P103	P105	P106	P108	P109	P110	P111
P112	P113	P114	P115	P117	P118	P119	P121	P122	P123	P126	P127	P128	P129
P131	P135	P136	P137	P138	P140	P141	P143	P144	P149	P150	P154	P155	P156
P157	P158	P159	P161	P162	P163	P166	P167	P169	P170	P171	P172	P175	P176
P177	P178												

Query

[Run Query on Wikidata.](#)

Wikidata properties

2. WDPProp: Wikidata Property Analysis

Wikidata Properties

Wikidata Properties (including deleted properties)

Total 9619 properties

P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14
P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28
P29	P30	P31	P32	P33	P34	P35	P36	P37	P38	P39	P40	P41	P42
P43	P44	P45	P46	P47	P48	P49	P50	P51	P52	P53	P54	P55	P56
P57	P58	P59	P60	P61	P62	P63	P64	P65	P66	P67	P68	P69	P70
P71	P72	P73	P74	P75	P76	P77	P78	P79	P80	P81	P82	P83	P84
P85	P86	P87	P88	P89	P90	P91	P92	P93	P94	P95	P96	P97	P98
P99	P100												

Query

[Run Query on Wikidata.](#)

Wikidata properties: All included deleted ones

2. WDPProp: Wikidata Property Analysis

Wikidata Properties

Top Properties on Wikidata

Total 100 properties

Property	Property label
P18	image
P17	country
P19	place of birth
P21	sex or gender
P27	country of citizenship
P31	instance of
P50	author
P54	member of sports team
P69	educated at
P59	constellation
P106	occupation
P105	taxon rank
P108	employer
P131	located in the administrative territorial entity

Wikidata properties: Top 100

2. WDPProp: Wikidata Property: P856

Wikidata Properties

P856

- [Property details](#)
- [Label missing translation in languages](#)
- [Description missing translation in languages](#)
- [Alias missing translation in languages](#)
- [Alias missing translation in languages](#)
- [Label already translated in languages](#)
- [Description already translated in languages](#)

Details

Feature	Value
Link	https://www.wikidata.org/entity/P856
Translation Path	path.html?property=P856 (Visualization: P856)
Provenance information	provenance.html?property=P856

Wikidata Property: P856 (official website)

2. WDPProp: Wikidata Property: P856

Wikidata Properties

Label missing translation in the following languages

Total 203 languages

aa	ab	ace	ady	ak	ang	arc	ary	as	av	avk	awa	ay	azb
ban	bar	bat-smg	bcl	be-x-old	bi	bjn	bm	bo	bpy	bug	bxr	cbk-zam	cdo
ceb	ch	cho	chr	chy	co	cr	crh	csb	cu	cv	din	dsb	dty
dv	dz	ee	eml	en-simple	en-x-simple	ext	ff	fiu-vro	fj	frp	fur	gag	gan
						gcr	glk	gn	gom	gor	got	gv	hak
haw	hif	ho	hz	ie	ig	ii	ik	inh	is	iu	jam	jbo	kaa
kab	kbd	kbp	kg	ki	kj	kl	km	koi	kr	krc	ks	ksh	ku
lad	lbe	lez	lfn	lg	li	lij	lld	lmo	ln	lo	lrc	ltg	lzh
mad	map-bms	mdf	mh	mhr	min	mis	mn	mni	mnw	mo	mri	mus	mwj
myv	mzn	na	nah	new	ng	nn-hogorsk	nov	nrm	nso	nv	ny	om	pag
							pam	pap	pcd	pdj	pfl	pi	pms
pnt	rm	rmy	rn	roa-tara	ru-sib	rue	rup	rw	sa	sah	sc	sd	se
sg	shn	simple	skr	sm	smn	sn	so	srm	ss	st	stq	su	sw
szy	tay	tcy	tet	tk	tl	tlh	tn	to	tpi	trv	tum	tw	ty
tyv	udm	ug	uz	ve	vep	vls	wa	war	wo	wuu	xal	xh	xmf
yo	za	zea	zh-min-nan	zh-yue	zu								

Missing labels in languages: P856

2. WDPprop: Wikidata Property: P856

Wikidata Properties

Description missing translation in the following languages

Total 255 languages

aa	ab	ace	ady	ak	an	ang	arc	ary	arz	as	atj	av	avk
awa	ay	azb	ba	ban	bar	bat-smg	bcl	be-x-old	bg	bi	bjn	bm	bo
bpy	br	bug	bxr	cbk-zam	cdo	ce	ceb	ch	cho	chr	chy	ckb	co
cr	crh	csb	cu	cv	cy	din	diq	dsb	dty	dv	dz	ee	eml
en-simple	en-x-simple	ext	ff	fiu-vro	fj	fo	frp	frr	fur	fy	ga	gag	gan
		gcr	gd	glk	gn	gom	gor	got	gsw	gv	ha	hak	haw
hi	hif	ho	hyw	hz	ia	ie	ig	ii	ik	inh	io	is	iu
jam	jbo	jv	kaa	kab	kbd	kbp	kg	ki	kj	kk	kl	km	koi
kr	krc	ks	ksh	ku	kw	la	lad	lb	lbe	lez	lfn	lg	li
lij	lld	lmo	ln	lo	lrc	lt	ltg	lzh	mad	mai	map-bms	mdf	mg
mh	mhr	mi	min	mis	mn	mni	mnw	mo	mrj	mt	mus	mwl	myv
mzn	na	nah	nap	ne	new	ng	nn-hogorsk	nov	nrm	nso	nv	ny	oc
								olo	om	os	pa	pag	pam
pap	pcd	pcd	pfl	pi	pms	pnt	ps	rm	rmy	rn	roa-tara	ru-sib	rue
rup	rw	sa	sah	sat	sc	sco	sd	se	sg	sh	shn	si	simple
sk	skr	sl	sm	smn	sn	so	sq	sr	srn	ss	st	stq	su

Missing descriptions in languages: P856

2. WDPprop: Wikidata Property: P856

Wikidata Properties

Alias missing translation in the following languages

Total 249 languages

aa	ab	ace	ady	ak	an	ang	arc	ary	arz	as	atj	av	avk
awa	ay	azb	ban	bar	bat-smg	bcl	be	be-x-old	bg	bi	bjn	bm	bo
bpy	br	bug	bxr	cbk-zam	cdo	ce	ceb	ch	cho	chr	chy	co	cr
crh	csb	cu	cv	cy	din	diq	dsb	dy	dv	dz	ee	eml	en-simple
en-x-simple	ext	ff	fiu-vro	fj	frp	frr	fur	gag	gan	gcr	gd	glk	gn
	gom	gor	got	gv	ha	hak	haw	hi	hif	ho	hsb	hyw	hz
ie	ig	ii	ik	ilo	inh	io	is	iu	jam	jbo	jv	kaa	kab
kbd	kbp	kg	ki	kj	kk	kl	km	koi	kr	krc	ks	ksh	ku
kw	ky	la	lad	lb	lbe	lez	lfn	lg	li	lij	lld	lmo	ln
lo	lrc	ltg	lzh	mad	mai	map-bms	mdf	mg	mh	mhr	mi	min	mis
mn	mni	mnw	mo	mr	mrj	mt	mus	mwl	myv	mzn	na	nah	nap
nds-nl	ne	new	ng	nn	nn-hogorsk	nov	nrm	nso	nv	ny	oc	olo	om
						or	os	pag	pam	pap	pcd	pdc	pfl
pi	pms	pnt	ps	rm	rmy	rn	roa-tara	ru-sib	rue	rup	rw	sa	sah
sat	sc	sco	sd	se	sg	sh	shn	simple	skr	sm	smn	sn	so

Missing aliases in languages: P856

2. WDPProp: Wikidata Property Analysis

Wikidata Datatypes

Datatypes used in Wikidata properties

Total 17 datatypes

WikibaseItem	CommonsMedia
ExternalId	String
Quantity	Time
Monolingualtext	Url
Math	GeoShape
WikibaseSense	WikibaseLexeme
MusicalNotation	WikibaseProperty
TabularData	GlobeCoordinate
WikibaseForm	

Query

[Run Query on Wikidata.](#)

Wikidata Datatypes

2. WDPProp: Wikidata Property Analysis

Wikidata Datatypes

Properties with datatype- wikibase:WikibaseLexeme

Total 14 properties

P5188	P5191	P5192	P5238	P5401	P5402	P5920	P5978	P6254	P6553	P6571	P6712	P7706	P9531
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Query

[Run Query on Wikidata.](#)

Wikidata Datatypes: Lexemes

2. WDPProp: Wikidata Property Analysis

Wikidata Property Classes

Classes

Total 1555 classes

Item	Class label
Q1281401	Q1281401
Q10262930	Q10262930
Q11430407	Q11430407
Q55903505	Q55903505
Q56243029	Q56243029
Q67202678	Q67202678
Q10021614	Q10021614
Q10111280	Q10111280
Q10445786	Q10445786
Q10583441	Q10583441
Q10643507	Q10643507
Q10651889	Q10651889
Q10677287	Q10677287
Q6128115	7" single

Wikidata Property Classes

2. WDPProp: Wikidata Property Analysis

Wikidata Property Classes

Q2334719	legal case
Q49371	legislation
Q820655	legislative act
Q205722	lens mount
Q133492	letter
Q2944660	lexical item
Q1738955	light characteristic
Q10421356	light novel series
Q1146001	light source
Q39715	lighthouse
Q25906190	liquid capacity
Q12139612	list
Q10603696	list of Pokémon species
Q3658341	literary character
Q7725634	literary work
Q3550897	lithostratigraphic unit
Q209939	live album

Wikidata Property Classes: Lighthouse

2. WDPProp: Wikidata Property Analysis

Wikidata Property Classes

Properties for the Class: lighthouse

Total 15 properties

Property	Property label
P625	coordinate location
P17	country
P2923	focal height
P2048	height
P1435	heritage designation
P18	image
P571	inception
P1030	light characteristic of lighthouse
P3922	light sector
P2929	lighthouse range
P206	located in or next to body of water
P131	located in the administrative territorial entity
P706	located on terrain feature
P127	owned by
P3994	racon signal

Properties for Lighthouse

2. WDPProp: Wikidata Property Analysis

Wikidata Property Classes

Count of translated labels

ca (15)	ar (15)	sv (15)	zh-hans (15)	uk (15)	sr (15)	pt (15)	nl (15)	nb (15)	mk (15)	fr (15)	es (15)	en (15)	de (15)
				en-gb (14)	da (14)	zh (14)	tr (14)	ru (14)	it (14)	fi (14)	zh-tw (13)	lv (13)	ko (13)
eo (13)	zh-hant (13)	be-tarask (12)	zh-hk (12)	te (12)	pl (12)	ja (12)	eu (12)	ba (11)	nn (11)	fa (11)	br (10)	bg (10)	be (10)
			ast (10)	af (10)	he (10)	sl (10)	pt-br (10)	vi (10)	tt (10)	tg (10)	sk (10)	sh (10)	scn (10)
ro (10)	nds (10)	lb (10)	ka (10)	id (10)	hy (10)	hu (10)	gu (10)	gsw (10)	gl (10)	et (10)	el (10)	zh-cn (10)	cy (10)
cs (10)	bn (9)	sq (9)	th (9)	ta (9)	sco (9)	oc (9)	ms (9)	mr (9)	hsb (9)	hr (9)	ga (9)	vec (9)	sr-ec (9)
ckb (8)	bs (8)	ur (8)	nqo (8)	lt (8)	ia (8)	kn (8)	diq (8)	tt-cyrl (8)	ml (8)	fr (8)	sr-el (8)	zh-mo (8)	or (8)
zh-my (8)	zh-sg (8)	az (7)	yue (7)	en-ca (7)	sd (7)	ilo (7)	yi (7)	ku-latn (6)	pa (6)	is (6)	ha (6)	de-at (6)	ps (6)
ne (6)	min (6)	hi (6)	tg-cyrl (6)	ce (5)	ajp (5)	ms-arab (5)	ja (5)	yo (5)	kab (5)	bar (5)	fo (5)	si (5)	ti (5)
							szl (5)	olo (5)	mg (5)	ky (5)	lij (5)	my (5)	nds-nl (4)
gd (4)	am (4)	tl (4)	rm (4)	ksh (4)	jv (4)	co (4)	szy (4)	an (3)	arz (3)	myv (3)	hyw (3)	ary (3)	jbo (3)
uz (3)	pcd (3)	io (3)	tt-latn (3)	mt (3)	fy (3)	ts (3)	lmo (3)	aeb-arab (3)	smn (3)	se (3)	mi (3)	mai (3)	kw (3)
									sms (3)	pam (3)	xh (2)	pfl (2)	de-ch (2)
lfn (2)	mzn (2)	lez (2)	vo (2)	tcy (2)	sgs (2)	sa (1)	vmf (1)	nso (1)	kk (1)	bho (1)	ik (1)	aeb-latn (1)	kl (1)
													ht (1)
gn (1)	bxr (1)	ban (1)	as (1)	ang (1)	sma (1)	wa (1)	sw (1)	su (1)	sah (1)	pap (1)	sat (1)	stq (1)	mni (1)
mhr (1)	lq (1)	roa-tara (1)	ku (1)										

Properties for Lighthouse: Translation statistics

2. WDPProp: Wikidata Property Analysis

Wikidata Property Classes

Properties for the Class: Wikidata property related to lighthouses

Total 18 properties

Property	Property label
P2980	ARLHS lighthouse ID
P3562	Admiralty number
P3920	Canadian Coastguard Lighthouse ID
P4038	Danish List of Lights and Fog signals ID
P4143	Finnish List of Lights ID
P3211	Heritage Lighthouse of Canada ID
P3863	Italian Navy Lighthouses and Beacons ID
P3601	MarineTraffic Lighthouse ID
P3563	NGA lighthouse ID
P4055	Norwegian List of Lights ID
P3223	Online List of Lights ID
P4423	Portuguese lighthouse ID
P3723	USCG lighthouse ID
P3993	Vitaskrá ID
P2923	focal height

Properties for Lighthouse

2. WDPProp: Wikidata Property Analysis

Wikidata Property Classes

Count of translated labels

uk (18)	nl (18)	fr (18)	en (18)	ar (18)	tr (11)	ca (11)	es (10)	da (9)	ru (9)	de (9)	sv (9)	en-gb (8)	zh-hans (8)
mk (7)	zh-hant (7)	fi (7)	nb (7)	te (7)	pt (6)	zh-hk (6)	pl (6)	lv (6)	zh (5)	eo (4)	sr (4)	it (4)	zh-tw (4)
en-ca (3)	de-ch (3)	de-at (3)	simple (3)	nds (3)	ko (3)	bar (3)	nn (2)	be-tarask (2)	fa (2)	eu (2)	br (1)	ba (1)	af (1)
									sr-ec (1)	ja (1)	sr-el (1)	be (1)	

Query

[Run Query on Wikidata.](#)

Count of translated descriptions

uk (18)	en (18)	fr (14)	tr (11)	nl (9)	en-gb (8)	fi (7)	de (7)	es (7)	te (7)	nb (6)	da (4)	en-ca (3)	simple (3)
pl (3)	ca (3)	it (3)	ko (3)	zh (2)	pt (2)	zh-hans (2)	ru (2)	sv (2)	lv (2)	nn (1)	br (1)	zh-hant (1)	zh-tw (1)
							zh-hk (1)	ja (1)	eu (1)				

Query

[Run Query on Wikidata.](#)

Properties for Lighthouse

2. WDPProp: Wikidata Property Analysis

Wikidata Properties with References

Wikidata Properties with references

Total 4189 properties

P17	P18	P19	P20	P21	P27	P31	P50	P54	P58	P69	P84	P86	P91
P98	P108	P112	P115	P123	P127	P128	P135	P136	P140	P141	P144	P149	P150
P154	P158	P159	P162	P166	P169	P170	P171	P175	P176	P178	P180	P181	P185
P199	P205	P206	P212	P213	P214	P217	P219	P225	P227	P229	P230	P231	P232
P233	P234	P235	P236	P238	P239	P240	P243	P244	P245	P247	P249	P264	P267
P268	P269	P270	P271	P276	P278	P279	P281	P305	P345	P347	P349	P350	P352
P354	P356	P358	P359	P361	P370	P373	P377	P380	P381	P382	P396	P402	P403
P406	P409												

Query

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Properties for Lighthouse

2. WDPProp: Wikidata Property Analysis

Wikidata Properties with References

Statistics on sources describing P856

- [Statements and references](#)
- [Equivalent properties](#)

Statements and references

Total 2 reference statements for a total of 55 statements (3.64%)

Property	Number of statements
P1629	1
P2302	1

Query

[Run Query on Wikidata.](#)

P856: References

2. WDPProp: Wikidata Property Analysis

Equivalent Wikidata Properties

Wikidata Properties with equivalent property value set

Total 328 properties

P10	P17	P18	P19	P20	P21	P22	P25	P26	P27	P31	P36	P37	P39
P40	P50	P51	P53	P57	P58	P69	P84	P86	P98	P103	P105	P106	P108
P110	P111	P112	P123	P127	P128	P131	P136	P140	P144	P154	P155	P156	P159
P161	P162	P166	P170	P171	P175	P176	P179	P180	P186	P199	P200	P201	P212
P213	P225	P227	P231	P233	P234	P235	P236	P239	P248	P249	P264	P268	P269
P272	P274	P275	P276	P277	P279	P281	P291	P304	P306	P344	P345	P349	P351
P355	P356	P358	P359	P361	P371	P404	P407	P409	P412	P433	P434	P435	P436
P444	P449												

Query

[Run Query on Wikidata.](#)

Wikidata Properties with equivalent property value

2. WDPProp: Wikidata Property Analysis

Wikidata Property Suggestion and Voting

Template translation statistics

Template Support

Template translated in total 54 languages

an	ar	az	be	bg	bn	br	bs	ca	ckb	cs	cu	da	de
el	en	eo	es	fa	fi	fr	ga	gl	he	hu	id	is	it
ja	ka	ko	mk	ml	nb	nl	nn	pl	pt	ro	ru	sco	sk
sl	sr-ec	sr-el	sv	tg-cyrl	tg-latn	th	tr	vi	uk	zh-hans	zh-hant		

Query

[Run Query using Wikidata Mediawiki API.](#)

Wikidata Property Voting: Support

2. WDPProp: Wikidata Property Analysis

Wikidata Property Suggestion and Voting

programming paradigm [edit]

 Done: programming paradigm (P3966) (Talk and documentation)

Description	the programming paradigm in which a programming language is classified
Represents	programming paradigm (Q188267)
Data type	Item
Template parameter	"paradigm" in en:Template:Infobox programming language
Domain	programming language (Q9143)
Example	<ul style="list-style-type: none">• C (Q15777) → imperative programming (Q275596), structured programming (Q223335)• Java (Q251) → object-oriented programming (Q79872), structured programming (Q223335)• Python (Q28865) → reflective programming (Q1056451), functional programming (Q193076), object-oriented programming (Q79872)• assembly language (Q165436) → non-structured programming (Q905156)

Wikidata Property Discussion

2. WDPProp: Wikidata Property Analysis

Wikidata Property Suggestion and Voting

Motivation

This property is in
this property. It o

Discussion

-  **Support.** A
 -  **Support** --
 -  **Support** (s
 -  **Support.** L
-  Notified [partic](#)
-  **Oppose** Th

Wikidata Property Discussion: Voting

2. WDPProp: Wikidata Property Analysis

Wikidata Property Suggestion and Voting

```
=== {{TranslateThis | anchor = en
| en = programming paradigm
| pt-br = paradigma de programação
| ru = парадигма программирования
| sr = програмска парадигма
| uk = парадигма програмування
<!-- |xx = property names in some other languages -->
}} ===
{{Property proposal
|status          = 3966
|description     = {{TranslateThis
| en = the programming paradigm in which a programming language is classified
| pt-br = um paradigma de programação no qual uma linguagem de programação está classificada
| ru = парадигма программирования, в соответствии с которой классифицируется язык программирования
| sr = програмска парадигма у којој је програмски језик класификован
| uk = парадигма програмування до якої належить мова програмування
<!-- |xx = property names in some other languages -->
}}
|subject item    = Q188267
|infobox parameter = "paradigm" in [[:en:Template:Infobox programming language]]
|datatype        = item
|domain          = {{Q|9143}}
|allowed values  = <!-- type of linked items (Q template or text), list or range of allowed values, string |
|source          = <!-- external reference, Wikipedia list article, etc. -->
|example         =
* {{Q|115777}} → {{Q|275596}}. {{Q|223335}}
```

Wikidata Property Discussion Template

2. WDPProp: Wikidata Property Analysis

Wikidata Property Suggestion and Voting

Template Oppose

Template translated in total 50 languages

ar	az	be-tarask	bg	bn	br	bs	ca	ckb	cs	da	de	el	en
eo	es	fa	fi	fr	ga	gl	pt	he	hu	id	is	it	ja
ka	ko	mk	ml	no	nb	nn	nl	pl	ro	ru	sco	sl	sr
sv	tg-cyrl	tg-latn	th	tr	uk	zh-hans	zh-hant						

Query

[Run Query using Wikidata Mediawiki API.](#)

Wikidata Property Voting: Oppose

2. WDPProp: Wikidata Property Analysis

Wikidata Property Suggestion and Voting

Template Neutral

Template translated in total 50 languages

ar	az	be	be-tarask	bn	bs	ca	ckb	cs	de	en	eo	es	fa
fi	fr	ga	gl	pt	he	hu	id	is	it	ja	ka	ko	mk
ml	nl	no	nb	nn	pl	ro	ru	sco	sk	sl	sr	sq	sv
tg-cyrl	tg-latn	th	tr	uk	zh	zh-hans	zh-hant						

Query

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Wikidata Property Voting: Neutral

2. WDPProp: Wikidata Property Analysis

Wikidata Property Suggestion and Voting

Template Comment

Template translated in total 45 languages

az	be-tarask	bn	bs	ca	ckb	cs	da	de	el	en	eo	es	fa
fi	fr	gl	he	hu	id	it	ja	ka	ko	mk	ml	nb	nds
nl	nn	pl	pt	ro	ru	sco	sk	sl	sq	sr	sv	th	tr
uk	zh-hans	zh-hant											

Query

[Run Query using Wikidata Mediawiki API.](#)

Wikidata Property Voting: Comment

2. WDPProp: Wikidata Property Analysis

WikiProjects

Data models [\[edit \]](#)

Generic language [\[edit \]](#)

Title	ID	Data type	Description
image	P18	Commons media file	illustration and 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, collage image)
instance of	P31	Item	instance of: that class of which this subject is a particular example and member
programming paradigm	P3966	Item	programming paradigm: programming paradigm in which a programming language is classified
logo image	P154	Commons media file	logo: graphic mark or emblem commonly used by commercial enterprises, organizations and products
developer	P178	Item	video game developer and software developer: organisation or person that developed the item
copyright license	P275	Item	license: license under which this copyrighted work is released
designed by	P287	Item	designer: person(s) or organization which designed the object
typing discipline	P7078	Item	type system: specifies the typing discipline implemented, used, or mandated in a programming language
operating system	P306	Item	operating system: operating system (OS) on which a software works or the OS installed on hardware
software version identifier	P348	String	software version: numeric or nominal identifier of a version of a software program or file format, current or past
inception	P571	Point in time	date of establishment: date or point in time when the subject came into existence as defined
influenced by	P737	Item	contributing factor: this person, idea, etc. is informed by that other person, idea, etc., e.g. "Heidegger was influenced by Aristotle"

WikiProjects: Programming Languages

2. WDPProp: Wikidata Property Analysis

WikiProjects

[WikiProject Association football \(Details\)](#)
[WikiProject Anime and Manga \(Details\)](#)
[WikiProject Patents \(Details\)](#)
[WikiProject Roads \(Details\)](#)
[WikiProject Energy \(Details\)](#)
[WikiProject Mathematics \(Details\)](#)
[WikiProject Star Trek \(Details\)](#)
[WikiProject Visual arts/Item structure \(Details\)](#)
[WikiProject Kākāpō \(Details\)](#)
[WikiProject Companies \(Details\)](#)
[WikiProject Archival Description \(Details\)](#)
[WikiProject Early Modern England and Wales \(Details\)](#)
[WikiProject **Museums** \(Details\)](#)
[WikiProject sum of all paintings \(Details\)](#)
[WikiProject Duplicates \(Details\)](#)
[WikiProject property constraints \(Details\)](#)
[WikiProject Templates \(Details\)](#)
[WikiProject India/Newsletter/2019 10 01 \(Details\)](#)
[WikiProject LGBT \(Details\)](#)
[WikiProject Greek War of Independence \(Details\)](#)
[WikiProject Women \(Details\)](#)
[WikiProject Armenia \(Details\)](#)
[WikiProject Historical Place \(Details\)](#)

WikiProjects

2. WDPProp: Wikidata Property Analysis

WikiProjects

Wikidata WikiProject

Total 37 properties

Property	Property label
P131	located in the administrative territorial entity
P154	logo image
P31	instance of
P17	country
P159	headquarters location
P276	location
P571	inception
P791	ISIL
P856	official website
P576	dissolved, abolished or demolished date
P669	located on street
P625	coordinate location
P968	e-mail address

WikiProjects: Properties

2. WDPProp: Wikidata Property Analysis

WikiProjects

Count of translated labels

fr (37)	en (37)	de (37)	ca (37)	it (37)	uk (37)	tr (37)	sr (37)	nl (37)	ar (37)	mk (36)	zh-hant (36)	ru (36)	pl (36)
												hu (35)	es (35)
ko (35)	ja (35)	en-gb (34)	zh-hans (34)	pt (34)	eo (33)	fi (32)	nb (32)	he (31)	da (31)	cs (31)	be-tarask (31)	zh-tw (31)	zh (31)
												sv (31)	fa (30)
id (29)	be (29)	ms (29)	gl (28)	el (28)	vi (28)	bn (28)	eu (27)	pt-br (27)	cy (26)	tt (26)	ro (25)	lv (25)	zh-hk (22)
sco (22)	nn (22)	vec (21)	ur (20)	ba (19)	zh-cn (19)	tg (19)	et (19)	ast (19)	th (18)	sq (18)	sl (18)	sk (18)	ka (18)
bg (17)	te (17)	oc (17)	lb (17)	hr (17)	ga (17)	bs (16)	az (16)	zh-sg (16)	zh-mo (16)	br (16)	en-ca (16)	zh-my (15)	tt-cyrl (15)
ml (15)	hsb (15)	gu (15)	sr-ec (15)	ta (14)	scn (14)	mr (14)	lt (14)	sr-el (14)	or (13)	nds (13)	af (13)	ckb (13)	gsw (12)
de-at (12)	hi (12)	hy (11)	yue (11)	ne (11)	la (11)	frr (11)	ku-latn (10)	kn (10)	tl (10)	sh (10)	tg-cyrl (9)	min (9)	fo (9)
								ps (9)	yi (9)	ms-arab (9)	de-ch (9)	pa (8)	is (8)
											ilo (8)	ia (8)	fy (8)
nqo (8)	mg (8)	ky (8)	diq (8)	arz (8)	ti (7)	my (7)	jv (7)	szl (7)	ce (7)	ha (6)	nds-nl (6)	mt (6)	si (6)
am (6)	co (6)	bar (6)	an (6)	yo (5)	se (5)	rm (5)	nap (5)	kw (5)	kk (5)	io (5)	gd (5)	olo (5)	sms (5)
smn (5)	aij (5)	sd (4)	pcd (4)	pam (4)	mai (4)	ksh (4)	lij (4)	vo (4)	ht (3)	lmo (3)	jbo (3)	ary (3)	uz (3)
szy (3)	mi (3)	ts (3)	hyw (3)	tt-latn (3)	rmi (2)	sat (2)	sa (2)	mzn (2)	lfn (2)	stq (2)	sgs (2)	kab (2)	wa (2)
tcy (2)	sw (2)	simple (2)	sah (1)	pap (1)	nan (1)	kv (1)	ig (1)	hak (1)	aln (1)	dag (1)	csb (1)	cdo (1)	bxr (1)
ban (1)	mhr (1)	ltg (1)	lez (1)	aeb-arab (1)	roa-tara (1)	nso (1)	myv (1)	pfl (1)	bho (1)	vmf (1)	tg-latn (1)	su (1)	xh (1)
					os (1)	fur (1)	ie (1)	kg (1)	li (1)	nrm (1)	pms (1)	sc (1)	vls (1)
wo (1)	zu (1)	frp (1)											

WikiProjects: Translation statistics for properties

2. WDPProp: Wikidata Property Analysis

Wikiprojects

Search Wikiprojects

Projects

[WikiProject Museums \(Details\)](#)

[WikiProject Cleveland Museum of Art \(Details\)](#)

[WikiProject sum of all paintings/Collection/Rijksmuseum \(Details\)](#)

[WikiProject sum of all paintings/Collection/Nationalmuseum \(Details\)](#)

[WikiProject sum of all paintings/Collection/Smithsonian American Art Museum \(Details\)](#)

[WikiProject Museum of Babel \(Details\)](#)

WikiProjects: Museums

2. WDPProp: Wikidata Property Analysis

Wikidata Properties: Statistics of Multilingual Labels

Count of translated labels

en (8903)	nl (8901)	fr (8376)	ca (8373)	uk (7382)	ar (7279)	de (5356)	tr (5196)	mk (4748)	es (4738)	it (4669)	ru (4352)	sr (4281)	pl (4162)
be-tarask (4040)	sv (3575)	hu (2946)	ja (2800)	pt (2765)	nb (2672)	zh-hans (2652)	da (2607)	ko (2496)	he (2479)	fa (2338)	cs (2321)	zh (2308)	eo (2271)
						zh-hant (2236)	fi (2208)	en-gb (2152)	be (1565)	nn (1532)	el (1512)	pt-br (1489)	
bn (1474)	id (1450)	cy (1383)	lv (1373)	ms (1370)	zh-tw (1273)	gl (1273)	eu (1077)	vi (1065)	nds (1009)	ro (980)	tt (933)	sco (923)	en-ca (916)
ast (848)	bs (819)	lb (794)	sq (774)	zh-hk (772)	oc (747)	sl (735)	scn (730)	zh-cn (727)	sr-ec (723)	sk (716)	ur (679)	tg (678)	sr-el (668)
									bg (650)	et (616)	ka (596)	hr (591)	ga (589)
br (564)	ba (556)	th (546)	hy (532)	vec (518)	simple (502)	zh-sg (485)	zh-mo (480)	tt-cyrl (479)	af (475)	mr (468)	ta (442)	te (432)	ia (420)
								zh-my (410)	az (408)	de-at (387)	bar (378)	hsb (374)	
									de-ch (369)	lt (366)	ml (364)	gu (348)	
										ku-latn (322)	ilo (292)	yue (280)	
											ms-arab (261)	la (249)	
												gsw (247)	
hi (245)	tg-cyrl (245)	ckb (244)	nqo (239)	sh (208)	is (206)	fo (193)	frr (192)	or (192)	kn (176)	ne (170)	se (163)	yi (153)	yo (150)
		pa (147)	diq (146)	min (142)	fy (136)	smn (131)	ha (128)	ce (123)	mg (120)	sms (118)	tl (115)	arz (109)	io (94)
szl (90)	uz (87)	nds-nl (85)	mt (82)	ts (79)	kab (78)	rm (76)	ps (74)	ti (73)	my (69)	ksh (69)	nap (69)	gd (67)	lfn (66)
pam (64)	ky (62)	hyw (62)	aln (59)	lmo (55)	co (53)	ary (52)	am (52)	szy (52)	lij (52)	jv (46)	kw (46)	atj (44)	vo (43)
olo (40)	an (39)	sd (34)	ku (34)	kk (33)	mzn (32)	pcd (30)	si (29)	tt-latn (29)	sw (28)	mi (28)	jbo (27)	kl (27)	pap (26)

Real time information on number of multilingual labels

2. WDPProp: Wikidata Property Analysis

Wikidata Properties: Multilingual Descriptions

Count of translated descriptions

en (8819)	uk (7366)	fr (6806)	tr (5058)	de (4142)	it (3532)	be-tarask (3231)	es (3127)	ru (2288)	pl (2181)	en-gb (1745)	ja (1730)	sv (1719)	ko (1645)
											nl (1551)	nb (1458)	zh (1448)
cs (1419)	fa (1339)	ca (1104)	gl (1023)	da (1016)	pt (1001)	fi (978)	zh-hans (968)	pt-br (946)	el (885)	id (873)	he (870)	ar (781)	zh-hant (771)
scn (708)	ast (682)	en-ca (668)	ro (598)	ms (557)	zh-tw (556)	eu (551)	hu (518)	be (461)	sr (448)	eo (395)	vi (315)	nn (312)	simple (308)
br (302)	mk (281)	ilo (263)	hsb (249)	zh-hk (248)	gu (243)	bn (240)	zh-cn (237)	sq (231)	sl (223)	lv (213)	hr (210)	cy (200)	bg (185)
								et (182)	sk (171)	hi (161)	ml (156)	ta (156)	te (153)
bs (151)	nqo (145)	sr-ec (142)	lb (136)	zh-sg (135)	af (134)	zh-mo (134)	sr-el (132)	mr (131)	oc (128)	ka (123)	th (114)	yue (109)	gsw (106)
							zh-my (105)	hy (91)	de-at (88)	ne (85)	ur (84)	ba (81)	pa (78)
								sh (76)	de-ch (76)	min (73)	ia (71)	tt (65)	kn (59)
az (57)	or (56)	ksh (55)	szl (47)	fo (47)	nds (45)	is (44)	tl (39)	tg (38)	lt (37)	yi (37)	ga (34)	lij (32)	vec (29)
my (29)	frr (29)	gd (28)	ha (27)	kk (25)	tt-cyrl (24)	la (24)	am (24)	nds-nl (22)	bar (21)	sah (16)	nap (16)	sd (15)	aj (15)
tt-latn (14)	ts (14)	fy (13)	si (13)	hyw (13)	tg-cyrl (12)	arz (12)	tcy (10)	pfl (10)	ii (9)	jv (8)	rm (8)	mt (8)	ckb (8)
sco (7)	ce (7)	ps (7)	yo (7)	aeb-arab (6)	wa (6)	mzn (6)	diq (6)	pam (6)	mni (6)	ky (6)	ku (6)	kw (6)	lmo (6)
					vmf (6)	no (5)	io (5)	an (4)	mai (4)	pap (4)	ms-arab (4)	uz (3)	ht (3)
												mg (3)	as (3)
se (3)	ig (3)	stq (3)	sa (3)	sc (3)	ff (2)	gan (2)	aeb-latn (2)	roa-tara (2)	rue (2)	su (2)	ain (2)	lez (2)	wuu (2)

Real time information on number of multilingual descriptions

2. WDPProp: Wikidata Property Analysis

Wikidata Properties: Multilingual Descriptions

Count of translated aliases

en (13024)	ko (10843)	fr (8577)	tr (7782)	ar (7338)	es (6248)	de (5287)	uk (4988)	ru (4435)	it (4246)	be-tarask (3339)	nl (2791)	en-gb (2495)	zh (2337)	ms (2262)
pl (2174)	cs (2142)	ja (1936)	ca (1891)	nb (1751)	sr (1447)	id (1420)	pt (1407)	sv (1402)	en-ca (1280)	pt-br (1263)	he (1217)	ro (1191)	ast (1181)	nn (1099)
da (1032)	fi (872)	fa (771)	hu (749)	zh-hant (733)	sl (732)	zh-hans (707)	th (697)	eo (676)	simple (672)	be (652)	lv (629)	cy (591)	eu (583)	sq (447)
scn (435)	ba (402)	hsb (394)	bn (388)	de-at (388)	de-ch (372)	nds (361)	bar (354)	mr (332)	bg (316)	nqo (298)	tg (268)	tt (253)	lt (244)	ur (192)
						sk (240)	vec (226)	zh-cn (224)	te (224)	tt-cyrl (221)	ta (203)	zh-hk (194)	ckb (189)	
et (189)	yue (186)	my (186)	hi (150)	bs (146)	az (140)	lb (140)	sh (128)	or (127)	hr (125)	br (123)	tl (122)	hy (119)	fo (118)	
gsw (114)	oc (113)	ml (112)	af (103)	ka (101)	zh-mo (100)	zh-sg (96)	se (94)	pa (92)	ga (91)	gu (83)	yo (79)	zh-my (73)	ti (73)	
						tg-cyrl (72)	si (66)	ia (65)	sco (65)	pam (63)	sd (57)	kn (56)	la (53)	
szl (52)	kk (47)	ha (44)	pfl (43)	ilo (42)	is (41)	tt-latn (41)	sms (40)	min (40)	sah (39)	ky (38)	smn (37)	am (35)	gd (33)	
ts (32)	yi (31)	mni (31)	nap (31)	sr-el (31)	fy (29)	io (29)	nds-nl (24)	vo (24)	ne (22)	sw (21)	arz (21)	co (20)	an (20)	
mg (20)	sr-ec (19)	mt (19)	rm (18)	tcy (18)	jv (17)	frr (16)	ms-arab (16)	lij (16)	wa (15)	ce (15)	pcd (14)	sa (13)	ku-latn (13)	
uz (12)	pms (12)	sc (12)	li (12)	lmo (12)	nrm (12)	ksh (11)	vmf (11)	vls (11)	wo (11)	frp (11)	fur (11)	ie (11)	kg (11)	
hyw (10)	atj (10)	jam (10)	lfn (10)	mzn (9)	ban (9)	gn (9)	as (9)	diq (9)	kw (8)	bxr (8)	zu (8)	ht (8)	ps (8)	
sma (7)	stq (7)	vep (7)	nys (7)	szy (6)	dag (6)	ltg (6)	mhr (6)	sat (5)	smj (5)	jbo (5)	ku (5)	no (4)	csb (4)	

Real time information on number of multilingual aliases

2. WDPProp: Wikidata Property Analysis

Wikidata Properties: Comparison of Translation

Compare translations among different languages

en, es, fr

Results

URL: <compare.html?languages=en,es,fr>

Count of translated labels

en (8905) fr (8378) es (4738)

Count of translated descriptions

en (8819) fr (6806) es (3127)

Count of available aliases

en (13024) fr (8577) es (6248)

Comparison of translation statistics

3. Analysis of Translation of Properties

WDProp: Translation path

P17					P856					P3966				
Path of Translation					Path of Translation					Path of Translation				
Color code: Add Update Remove					Color code: Add Update Remove					Color code: Add Update Remove				
Time	L	D	A		Time	L	D	A		Time	L	D	A	
2013-02-04T19:43:51Z	en				2013-09-10T22:43:54Z	en				2017-05-21T10:07:38Z	en			
2013-02-04T19:44:15Z	it				2013-09-10T22:59:51Z	ko				2017-05-22T10:10:41Z	ru			
2013-02-04T19:44:57Z	fr				2013-09-10T23:37:22Z	fr				2017-05-23T01:26:15Z	pt			
2013-02-04T19:53:48Z	zh				2013-09-11T01:09:22Z	it				2017-05-23T10:22:07Z	nb	nb		
2013-02-04T19:54:11Z	zh-hans				2013-09-11T01:28:08Z		en			2017-05-23T10:22:08Z			nb	
2013-02-04T19:54:34Z	zh-hant				2013-09-11T01:28:13Z	nl				2017-05-23T12:11:09Z	fi			
2013-02-04T19:59:44Z	en				2013-09-11T01:33:05Z			en		2017-05-23T14:10:47Z	da			
2013-02-04T19:59:59Z	fr				2013-09-11T02:30:53Z	pt				2017-05-23T17:44:11Z	fr	fr		
2013-02-04T20:00:19Z	de				2013-09-11T02:31:03Z		pt			2017-05-23T17:44:12Z			fr	
2013-02-04T20:00:35Z	it				2013-09-11T05:07:25Z	es				2017-05-24T04:25:03Z	es			
2013-02-04T20:03:15Z	fi				2013-09-11T05:09:04Z			es		2017-05-24T04:25:04Z	de			
2013-02-04T20:04:29Z		fr			2013-09-11T05:39:35Z	fi				2017-05-24T04:25:04Z	it			
2013-02-04T20:04:35Z	fr				2013-09-11T05:39:56Z		fi			2017-05-24T04:25:05Z	nl			
2013-02-04T20:37:40Z	en				2013-09-11T06:27:06Z	fa								
2013-02-04T21:52:09Z	he													
2013-02-04T22:06:09Z	cs													

Wikidata properties: Translation path of three Wikidata Properties

3. Analysis of Translation of Properties

WDProp: Translation path

2017-03-25T16:47:19Z ko

2017-03-25T16:47:20Z ko

2017-03-25T16:47:21Z ko

2017-04-19T10:43:37Z bar

2017-04-19T10:43:38Z bar bar

2017-04-24T14:38:04Z lb

2017-05-03T10:30:58Z ky

2017-05-14T10:54:19Z ko

2017-05-24T10:25:32Z ur

2017-06-11T00:21:47Z yo

2017-06-11T05:46:49Z te

2017-06-11T05:47:18Z te

2017-07-03T08:55:27Z tg-cyrl tg-cyrl tg-cyrl

2017-07-08T14:21:03Z en

2017-07-11T10:26:59Z my my my

2017-08-06T10:20:41Z es

2017-08-10T04:42:26Z ro

2017-08-24T10:27:34Z aeb-arab

2017-09-06T19:45:07Z tt

2017-09-06T19:45:08Z tt-cyrl

2017-09-06T19:45:09Z tt-latn

No label defined (p17)

Revision as of 14:21, 8 July 2017 by [PiotrMab1](#) (talk | contribs) (Removed [en] label: country) (diff) ← Older revision | Latest revision (diff) | Newer revision → (diff)

sovereign state of this item

sovereign state | nation | state | land

▼ In more languages [Configure](#)

Language	Label	Description	Also known as
English	No label defined	sovereign state of this item	sovereign state nation state land
French	pays	État souverain de cet élément	État
Spanish	país	estado soberano de este elemento	estado
German	Staat	souveräner Staat, in dem sich das Objekt befindet	Land

All entered languages

Wikidata properties: Possible vandalism (removal of labels)

3. Analysis of Translation of Properties

WDProp: Translation path

The image shows a Wikidata history table on the left and a language table on the right. The history table lists revisions from 2014-11-30T15:37:28Z to 2014-12-27T04:56:54Z, with language codes (tt, en, es, zh-hant, fr) indicating changes. The language table shows the current state of the property across various languages.

Language	Label	Description	Also known as
English	No label defined	No description defined	
French	No label defined	No description defined	
Spanish	No label defined	No description defined	
German	offizielle Website	URL für die Website des Objektes	Webseite Internetauftritt Website URL Internetseite Homepage

Wikidata properties: Possible vandalism (removal of labels, descriptions and aliases)

3. Analysis of Translation of Properties

Wikidata Properties: Revision History

- (cur | prev) 07:18, 10 January 2018 Llywelyn2000 (talk | contribs) .. (52,090 bytes) (-59) .. (Removed English alias: nation)
- (cur | prev) 07:18, 10 January 2018 Llywelyn2000 (talk | contribs) .. (52,149 bytes) (-23) .. (Changed English description: nation)
- (cur | prev) 04:32, 9 January 2018 Osteologia (talk | contribs) .. (52,172 bytes) (+74) .. (Added Esperanto alias: ŝtato)
- (cur | prev) 18:54, 7 January 2018 Robin van der Vliet (talk | contribs) .. (52,098 bytes) (+62) .. (Added [vo] label: län)
- (cur | prev) 18:54, 7 January 2018 Robin van der Vliet (talk | contribs) .. (52,036 bytes) (+63) .. (Added [io] label: lando)
- (cur | prev) 18:54, 7 January 2018 Robin van der Vliet (talk | contribs) .. (51,973 bytes) (-1) .. (Changed Esperanto label: lando)
- (cur | prev) 17:24, 30 December 2017 Valentina.Anitnelav (talk | contribs) .. (51,974 bytes) (+284) .. (Changed claim: property constraint (P2302): value ty
- (cur | prev) 04:29, 25 December 2017 Ysasuru (talk | contribs) .. (51,690 bytes) (+75) .. (Added Sinhala alias: country)
- (cur | prev) 04:29, 25 December 2017 Ysasuru (talk | contribs) .. (51,615 bytes) (+141) .. (Added [si] description: මෙම දැක්වීම යනු ස්වෛරී රාජ්‍යය)
- (cur | prev) 04:29, 25 December 2017 Ysasuru (talk | contribs) .. (51,474 bytes) (+64) .. (Added [si] label: රජ)
- (cur | prev) 01:04, 14 December 2017 Pizza1016 (talk | contribs) .. (51,410 bytes) (+273) .. (Added Malay aliases: negeri berdaulat, negara berdaulat, ban
- (cur | prev) 01:04, 14 December 2017 Pizza1016 (talk | contribs) .. (51,137 bytes) (+213) .. (Added British English aliases: sovereign state, nation, state)

Compare selected revisions

Revision History on Wikidata: Property P17

3. Analysis of Translation of Properties

Wikidata Properties: Comments from revision history

Attribute	Add	Update	Remove
label	wbsetlabel-add	wbsetlabel-set	wbsetlabel-remove
description	wbsetdescription-add	wbsetdescription-set	wbsetdescription-remove
alias	wbsetaliases-add	wbsetaliases-add-remove	wbsetaliases-remove

3. Analysis of Translation of Properties

Wikidata Properties: Comments from revision history

- Pros
 - Building real-time tools
 - Easier to find what changed without looking at the content
- Cons
 - Multiple language changes in a single edit (bots)

3. Analysis of Translation of Properties

Wikidata Properties: Data Collection

- Wikidata MediaWiki API
 - Make use of content parameter from 'revision history'
 - Find what actually changed between two different versions
- Data Columns
 - timestamp
 - property
 - language
 - type

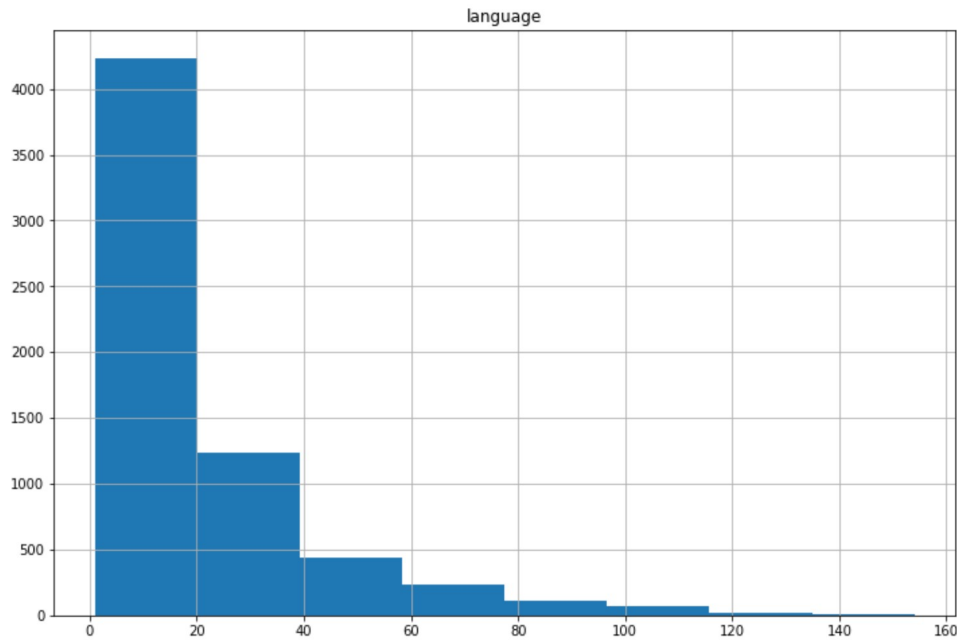
3. Analysis of Translation of Properties

Wikidata Properties: Data Collection

timestamp	property	language	type
2013-10-26T16:45:20Z	P999	en	label
2013-10-26T16:45:20Z	P999	en	description
2013-10-26T18:16:05Z	P999	de	label
2013-10-27T02:55:15Z	P999	pt	label
2013-10-27T02:55:18Z	P999	fr	label
2013-10-28T12:42:28Z	P999	pl	label
2013-10-29T08:41:45Z	P999	fr	description

3. Analysis of Translation of Properties

Wikidata Properties: Analysis Results



Histogram on the distribution of number of languages for different properties

3. Analysis of Translation of Properties

Wikidata Properties: Analysis Results

Measure	Value
count	6347
mean	21.444935
std	20.897675
min	1.000000
max	154.000000

3. Analysis of Translation of Properties

Analysis Results: Frequent itemsets

Count	Language Combinations
6347	en
6338	ar
6306	nl
6263	uk
5928	fr
4823	ca
4019	de

3. Analysis of Translation of Properties

Analysis Results: Frequent itemsets

Count	Language Combinations
6259	ar, uk
5923	fr, ar
5905	fr, uk
4819	ar, ca
4795	ca, uk
4530	fr, ca
4015	ar, de


3. Analysis of Translation of Properties

Analysis Results: Frequent itemsets

Count	Language Combinations
6257	en, nl, ar, uk
5919	en, nl, fr, ar
5903	en, nl, fr, uk
5901	en, ar, fr, uk
5899	nl, fr, uk, ar
4818	en, nl, ar, ca
4794	en, nl, ca, uk

4. Conclusion and Future Works

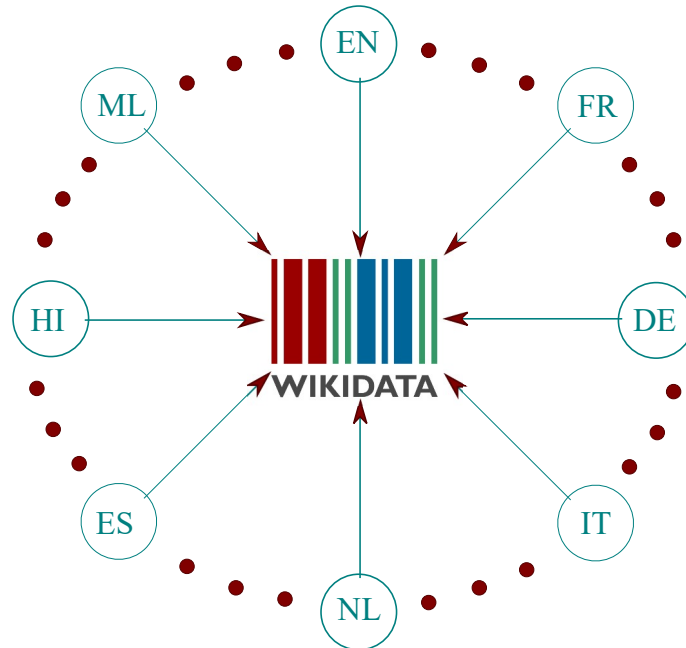
Wikipedia Infobox Properties

Python	C
	
Paradigm	Paradigm
Object-oriented, imperative, functional, procedural, reflective	Imperative (procedural), structured
Designed by	Designed by
Guido van Rossum	Dennis Ritchie
Developer	Developer
Python Software Foundation	Dennis Ritchie & Bell Labs (creators); ANSI X3J11 (ANSI C); ISO/IEC JTC1/SC22/WG14 (ISO C)
First appeared	First appeared
1990; 28 years ago ^[1]	1972; 46 years ago ^[2]
Stable release	Stable release
3.7.0 / 27 June 2018; 2 months ago ^[2] 2.7.15 / 1 May 2018; 4 months ago ^[3]	C11 / December 2011; 5 years ago
Typing discipline	Typing discipline
Duck, dynamic, strong since version 3.5: Gradual ^[4]	Static, weak, manifest, nominal
License	OS
Python Software Foundation License	Cross-platform
Filename extensions	Filename extensions
.py, .pyc, .pyd, .pyo (prior to 3.5), ^[5] .pyw, .pyz (since 3.5) ^[6]	c, .h
Website	
www.python.org [ⓘ]	

Existing English Wikipedia Infobox Properties of Programming Languages

4. Conclusion and Future Works

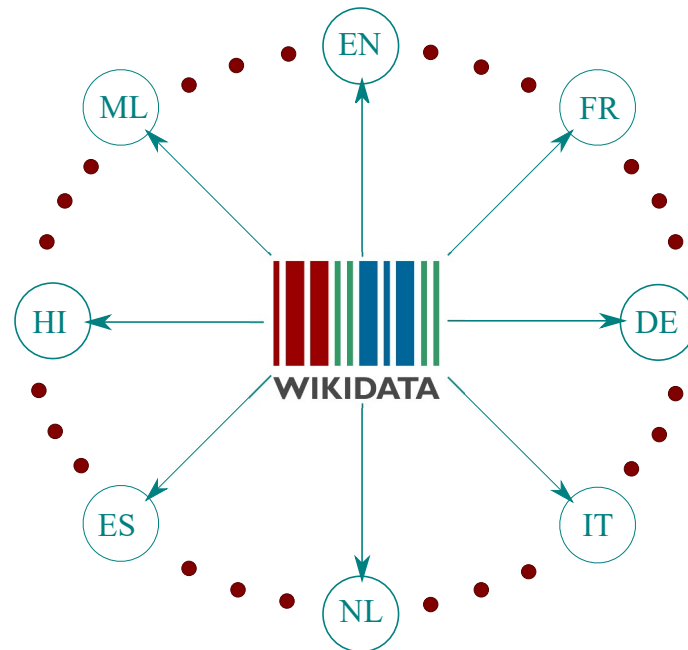
Wikipedia to Wikidata



Importing structured data from Wikipedia Infoboxes to Wikidata

4. Conclusion and Future Works

Wikidata to Wikipedia



Exporting data from Wikidata to multiple multilingual Wikipedia articles

4. Conclusion and Future Works

Future Works

1. Search:

- Improving the search experience

2. Visualize:

- Export as SVG

3. Download:

- API
- Download as JSON, CSV

4. Conclusion and Future Works

- **Contribute**
 - Translation
 - Documentation
 - Development
- **URL**
 - <https://wdprop.toolforge.org/>
 - Source code: <https://github.com/johnsamuelwrites/wdprop>
 - Issues: <https://github.com/johnsamuelwrites/wdprop/issues>

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Thank you

Questions?

