



Lexicographical Data on Wikidata and Wikibase

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Overview



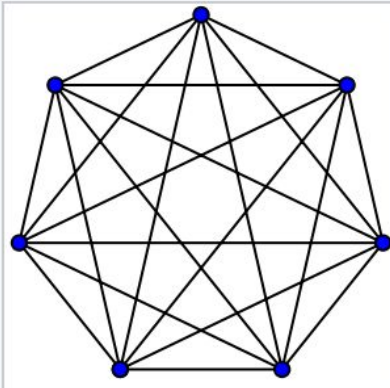
- What is Wikidata?
 - A little bit of history, main features
 - Q-entities, P-entities, statements, ranks, qualifiers
 - Data access, API and JSON representation, RDF, SPARQL
- What is Wikibase?
 - Main features, install and hosting solutions
 - Use cases: [LexBib](#), [Inguma](#), [Ahotsak](#) wikibases
- Lexicographical data
 - L-entities, Senses, Forms
 - Data model: ontolex classes and properties, wikidata properties
 - Coverage of different languages, Community channels
 - Related Tools (ORDIA, etc.)

← hands-on task

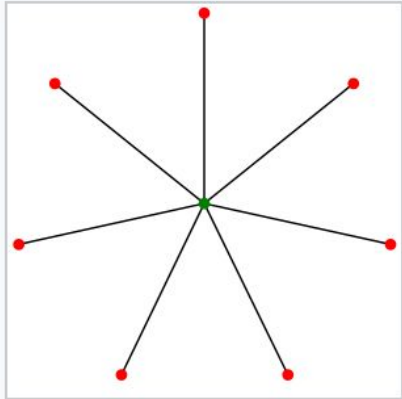
← hands-on task

What is Wikidata? A little bit of history

- 2013: centralized interlanguage links
- 2013: statements
- 2015: Wikidata Query Service
- 2022: 98M content pages describing entities ([statistics](#))



Old system:
Interlanguage links
between all languages



Wikidata, phase 1:
Links to all languages
from one central point



What is Wikidata?

Wikidata item as hub for Wikipedia “sitelinks”

Wikidata item for **Bob Marley** (Q409). The page displays the Wikidata logo and the item name. Below the name, it lists the subject as a Jamaican reggae musician (1945–1981) and provides a list of languages with corresponding sitelinks. An orange arrow points from the 'en' link to the Wikipedia article.

Language	Sitelink
cv	Боб Марли
cy	Bob Marley
da	Bob Marley
de	Bob Marley
diq	Bob Marley
el	Μπομπ Μαρλέϊ
en	Bob Marley
eo	Bob Marley
es	Bob Marley
et	Bob Marley
eu	Bob Marley
fa	باب مارلی
fi	Bob Marley
fo	Bob Marley

Wikipedia article for **Bob Marley**. The article title is "Bob Marley" and it includes a disambiguation note: "Marley" redirects here. For other uses, see Marley (disambiguation). This article is about the Jamaican musician. For the American comedian, see Bob Marley (comedian). For the Jamaican cricketer, see Robert Marley (cricketer). The article also includes a section for Robert Nesta Marley OM (6 February 1945 – 11 May 1981) and a photo of him performing. An orange arrow points from the Wikidata item to the Wikipedia article.

What is Wikidata?

- Wikipedia uses Wikidata, e.g. for infoboxes

<https://en.wikipedia.org/wiki/Help:Infobox>

WIKIDATA

Item Discussion

Norwegian Lundehund (Q38895)

dog breed edit

[in more languages](#)
configure


Language	Label	Description	Also known as
English	Norwegian Lundehund	dog breed	
Spanish	Lundehund	raza de perro originaria de Noruega	
Catalan	No label defined	No description defined	
Galician	No label defined	No description defined	

All entered languages

Statements

instance of dog breed edit
[1 reference](#)
[+ add value](#)

image edit



Lundehund-2003.jpg
716 × 526, 121 KB
[1 reference](#)
[+ add value](#)



Norwegian Lundehund



A Norwegian Lundehund

Other names Norsk Lundehund
Norwegian Puffin Dog

Nicknames Lundehund

Country of origin [Norway](#)

Traits [\[hide\]](#)

Weight 6–7 kilograms (13–15 lb)

Height 30–40 centimetres (12–16 in)

Classification / standards [\[hide\]](#)

FCI Group 5 Section 2 #265 [standard](#) [🔗](#)

AKC Non-Sporting [standard](#) [🔗](#)

UKC Northern Breed [standard](#) [🔗](#)

[Dog](#) (*Canis lupus familiaris*)

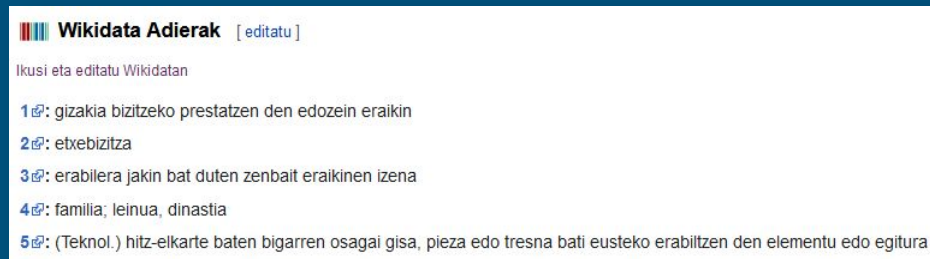
Example of an infobox 🔗

What is Wikidata?

- Wiktionary uses Wikidata, e.g. in templates for lexical senses on Basque Wiktionary



<http://www.wikidata.org/entity/L73194>



<https://eu.wiktionary.org/wiki/etxe>

Labels, Description

[try it in Wikidata QS](#)



- [wd:Q409](#) `rdfs:label` “Bob Marley”@en , “Боб Марли”@ru .
- [wd:Q409](#) `skos:altLabel` “Robert Nesta Marley”@en, “Nesta Robert Marley”@en .
- [wd:Q409](#) `schema:description` “Jamaican reggae musician (1945-1981)”@en .

Statements

[see item on Wikidata](#)

The screenshot displays the Wikidata interface for the item 'Bob Marley' (Q409). The left sidebar shows the Wikidata logo and a 'Main page' link. The main content area has tabs for 'Item' and 'Discussion'. Below the title 'Bob Marley (Q409)', it identifies him as a 'Jamaican reggae musician (1945–1981)' and lists associated names: 'Donald Marley | Nesta Robert Marley | Tuff Gong | Bab Maali | Rabat Nesta Maali | Robert Nesta "Bob"'. A list of statements is shown on the right, including 'member of' (with a tooltip 'Property:P463') pointing to 'The Upsetters' and '0 references', and 'religion or worldview' pointing to 'Latin Church' (with start time 1945, end time 1981, and 0 references) and 'Rastafari movement' (with start time 1966, end time 1980, and 0 references). A tooltip for 'Rastafari movement' shows its ID 'Q101462'.

- [Q409](#) (Bob Marley) > [P463](#) (member of) > [Q2525354](#) (Bob Marley and the Wailers)
- [Q409](#) (Bob Marley) > [P140](#) (religion or worldview) > [Q101462](#) (Rastafari movement)

Qualifiers



[try it in Wikidata QS](#)

religion or worldview	Latin Church	
	start time	1945
	end time	1981
	0 references	
Rastafari movement		
	start time	1966
	end time	1980
	0 references	

[wd:Q409](#) [p:140](#) [[ps:P140](#) [wd:Q101462](#) ; [pq:P580](#) {time object}; [pq:P582](#) {time object}].

Property values are blank nodes

[try it in Wikidata QS](#)

```
PREFIX wd: <http://www.wikidata.org/entity/>  
PREFIX p: <http://www.wikidata.org/prop/>  
PREFIX pq: <http://www.wikidata.org/prop/qualifier/>  
PREFIX ps: <http://www.wikidata.org/prop/statement/>
```

```
wd:Q409 p:P140 [ps:P140 ?religion; pq:P580 ?start; pq:P582 ?end] .
```

```
wd:Q409 p:P140 ?religion_statement .
```

```
?religion_statement ps:P140 ?religion; pq:P580 ?start; pq:P582 ?end .
```

Bridging blank nodes: wdt

```
PREFIX wd: <http://www.wikidata.org/entity/>
```

```
PREFIX wdt: <http://www.wikidata.org/prop/direct/>
```

```
wd:Q409 wdt:P140 ?religion.
```

[try it in Wikidata QS](#)

A slightly more complex query

```
1 #singers and singer-songwriters members of Rastafari movement
2
3 SELECT
4
5 ?singer
6 ?label
7 (group_concat(distinct ?altLabel;SEPARATOR="; ") as ?altLabels)
8 ?desc
9
10 WHERE
11 {
12     ?singer wdt:P140 wd:Q101462;
13         wdt:P106 ?occupation. values ?occupation {wd:Q488205 wd:Q177220}
14     ?singer rdfs:label ?label. filter (lang(?label) = "en")
15     ?singer skos:altLabel ?altLabel. filter (lang(?altLabel) = "en")
16     ?singer schema:description ?desc. filter (lang(?desc) = "en")
17 }
18
19 GROUP BY ?singer ?label ?altLabels ?desc
```

[try it in Wikidata QS](#)

Wikidata/Wikibase datatypes

- Datatype: To what kind of data object does a property point?
- Datatypes *item*, *property*, *form*, *sense*: “object property” (points to other entity on the same wikibase instance)
- Others: “datatype property”
- Only one datatype per property

see [Help:Data type](#)

Supported data types

- 2.1 Commons media
- 2.2 Globe coordinate
- 2.3 Item
- 2.4 Property
- 2.5 String
- 2.6 Monolingual text
- 2.7 External identifier
- 2.8 Quantity
- 2.9 Time
- 2.10 URL
- 2.11 Mathematical expression
- 2.12 Geographic shape
- 2.13 Musical Notation
- 2.14 Tabular data
- 2.15 Lexeme
- 2.16 Form
- 2.17 Sense

Wikidata: Data access

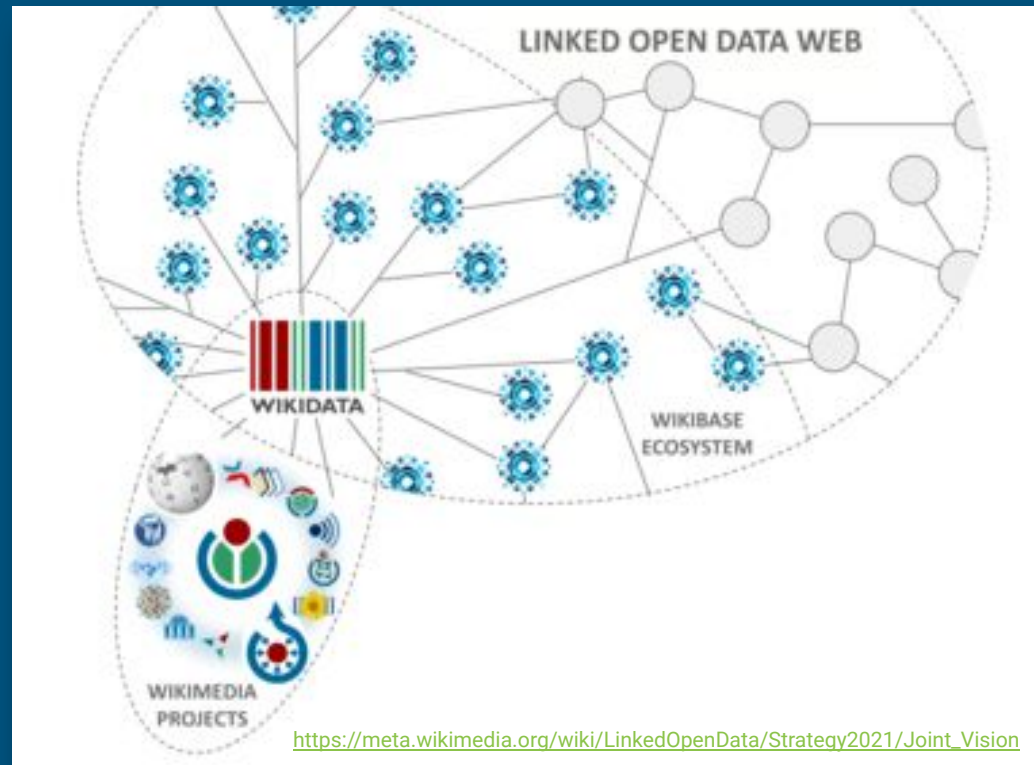
- SPARQL, graphical interface
 - <https://query.wikidata.org>
- SPARQL, endpoint
 - <https://query.wikidata.org/sparql>
- Elasticsearch
 - <https://www.wikidata.org/wiki/Special:Search>
- API
 - See <https://www.wikidata.org/w/api.php>
- Entity data, RDF dump (TTL, N3, ...)
 - See <https://www.wikidata.org/wiki/Special:EntityData>

```
{
  "claims": {
    "P734": [
      {
        "mainsnak": {
          "snaktype": "value",
          "property": "P734",
          "hash": "3826c063a8df7fbe2c90499a79f03953314621bf",
          "datavalue": {
            "value": {
              "entity-type": "item",
              "numeric-id": 6771790,
              "id": "Q6771790"
            },
            "type": "wikibase-entityid"
          },
          "datatype": "wikibase-item"
        },
        "type": "statement",
        "id": "Q409$b942ade5-4b12-a0c3-eeef5-fab1a32ec793",
        "rank": "normal"
      }
    ],
    "P910": [
      {
        "mainsnak": {
          "snaktype": "value",
          "property": "P910",
          "hash": "4430af5e42f84a7097f1c873b927201deab19453",
          "datavalue": {
            "value": {
              "entity-type": "item",
              "numeric-id": 7583814,
              "id": "Q7583814"
            },
            "type": "wikibase-entityid"
          },
          "datatype": "wikibase-item"
        },
        "type": "statement",
        "id": "Q409$22adf547-4e73-d137-240f-580c2e2eef5d",
        "rank": "normal"
      }
    ]
  }
}
```


What is Wikibase?



- An “empty Wikidata”, for you
 - The same software Wikidata uses (extension to the MediaWiki platform)
 - Free for everybody: <http://wikiba.se>
 - Docker version: <https://www.mediawiki.org/wiki/Wikibase/Docker>
 - Wikibase Cloud: <http://wikibase.cloud>
- The vision: Wikibase Ecosystem
 - Federated Wikibase instances



https://meta.wikimedia.org/wiki/LinkedOpenData/Strategy2021/Joint_Vision

Why do I want my own Wikibase (instead of editing Wikidata directly)?

- Management of an own community to collaboratively upload/edit content
- Freedom to create properties spontaneously
- No mixed-up data (Wikidata content vs. own data)
- Alignment with Wikidata entity by entity, whenever it is possible and makes sense
- Local wikipages describing own project (i.e., an own Wiki)
- Local media (i.e., an “own commons”)
- Licensing: Ability to set other CC license than CC0
- More and more Wikidata-related tools are converted to generic Wikibase tools (Quickstatements, Cradle, WDI/WBI, etc.)

Wikibase example 1: LexBib Wikibase




- <http://lexbib.elex.is>, hosted on wikibase.cloud
- A digital bibliography and knowledge graph for the domain of Lexicography and Dictionary Research
- Created 2021 in the framework of Elexis (<http://elex.is>)
- Bibliodata from [Zotero Group](#)
- “[LexVoc](#)” Controlled Vocab.
- “[LexMeta](#)”
 - Model for dictionary metadata
 - built on top of [MetaShare](#)



LexBib example item (an article)

LEXBIB

Search LexBib



Navigation

Main page

Recent changes

Random page

Help about MediaWiki

Wikibase

New Item

New Property

New Schema

All Properties

Query Service

Cradle

QuickStatements

Sketch Engine for Bilingual Lexicography (Q5958)

Item

Discussion

☆

Publication by Kovár, Baisa & Jakubíček (2016)

edit

▼ In more languages

Configure

Language	Label	Description	Also known as
English	Sketch Engine for Bilingual Lexicography	Publication by Kovár, Baisa & Jakubíček (2016)	
Spanish	No label defined	No description defined	

Statements

instance of

LexBib BiblItem

▼ 0 references

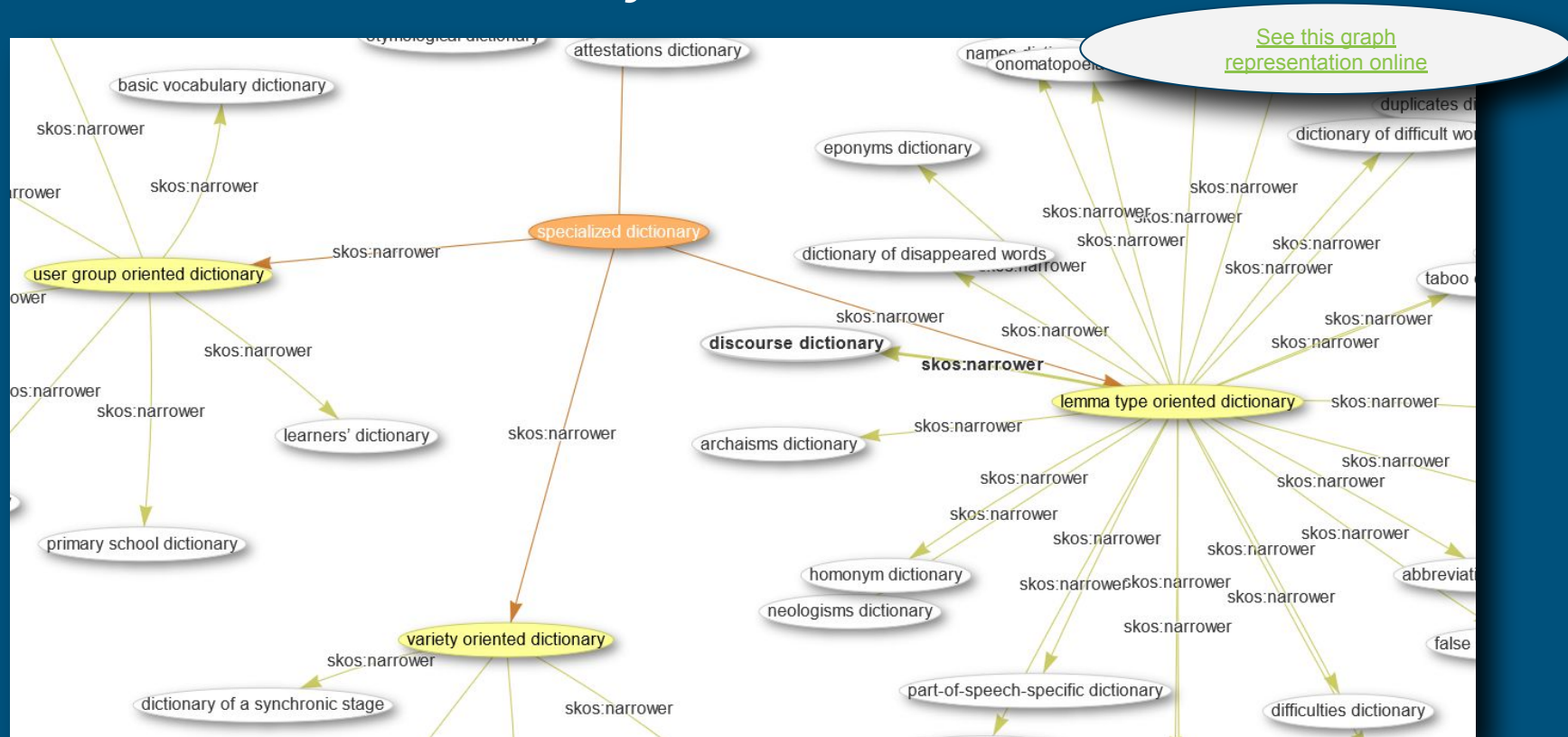
+ add reference

+ add value

edit

<http://lexbib.elex.is/entity/Q5958>

LexVoc vocabulary



LexMeta data model

<http://lexbib.elex.is/wiki/LexMeta>

LexMeta

Page Discussion ★

Edit History

Contents

[hide](#)

- 1 LexMeta, a metadata model for lexical resources
 - 1.1 Description of lexicographical works
 - 1.2 Description of lexical-conceptual resources (LCR), such as dictionaries
 - 1.3 Description of LCR distributions, such as dictionaries distributed in printed or electronic form
 - 1.4 Database Queries
 - 1.5 Related Documents

LexMeta, a metadata model for lexical resources [edit](#)

LexMeta follows the entity hierarchy for the representation of artistic or creative endeavour proposed in the [FRBR ontology](#), widely used in libraries, which we partially map to the two-level hierarchy for the representation of Lexical-Conceptual Resource (LCR) metadata proposed in [Metashare](#), from where we inherit the terminology, and the definitions. These hierarchy levels, expressed as classes, are the following:

FRBR class	Metashare class	LexMeta class	Definition
frbr:Work	dcat:DatasetSeries (discussion ongoing)	Lexicographic work (Q41)	<i>FRBR</i> : An abstract notion of a creation; used to group different expressions (editions, versions) of the same work, and address statements that apply on work level.
frbr:Expression	ms:LexicalConceptualResource	LCR (Q4)	<i>MetaShare</i> : A resource organised on the basis of lexical or conceptual entries (lexical items, terms, concepts, etc.) with their supplementary information (e.g., grammatical, semantic, statistical information, etc.)
frbr:Manifestation	ms:DatasetDistribution	LCR Distribution (Q24)	<i>MetaShare</i> : Any form with which a dataset is distributed, such as a downloadable form in a specific format (e.g., spreadsheet, plain text, etc.) or an API with which it can be accessed

Wikibase example 2: Ahotsak Wikibase



ahotsak.eus Euskal Herriko hizkerak eta ahozko ondarea

DICTIONARY BASQUE ORAL CORPUS

→ link lemma

Lema: beldur

Aldaerak

Aldaera	Agerpen kopurua
beldur	76
beldur	314
beldur	142

→ link variants

lema 'beldur':
3 dialectal variants

Egungo Testuen Corpusa (ETC)

STANDARD BASQUE WRITTEN TEXT CORPUS

beldur

bilatu

88,456 agerpen

[adibide guztiak fitxategi bakarrean jartze]

Formak

	ager	%
beldur	33,372	37,73
beldura	22,585	25,53
beldurrik	8,711	9,85
beldurrez	7,791	8,81
beldurrik	6,178	6,98
beldurreko	3,100	3,50
belduraren	2,537	2,87
beldurragatik	787	0,89

→ link lemma

WIKIDATA

Lexeme Discussion

(L50533)

beldur

eu

Language Basque

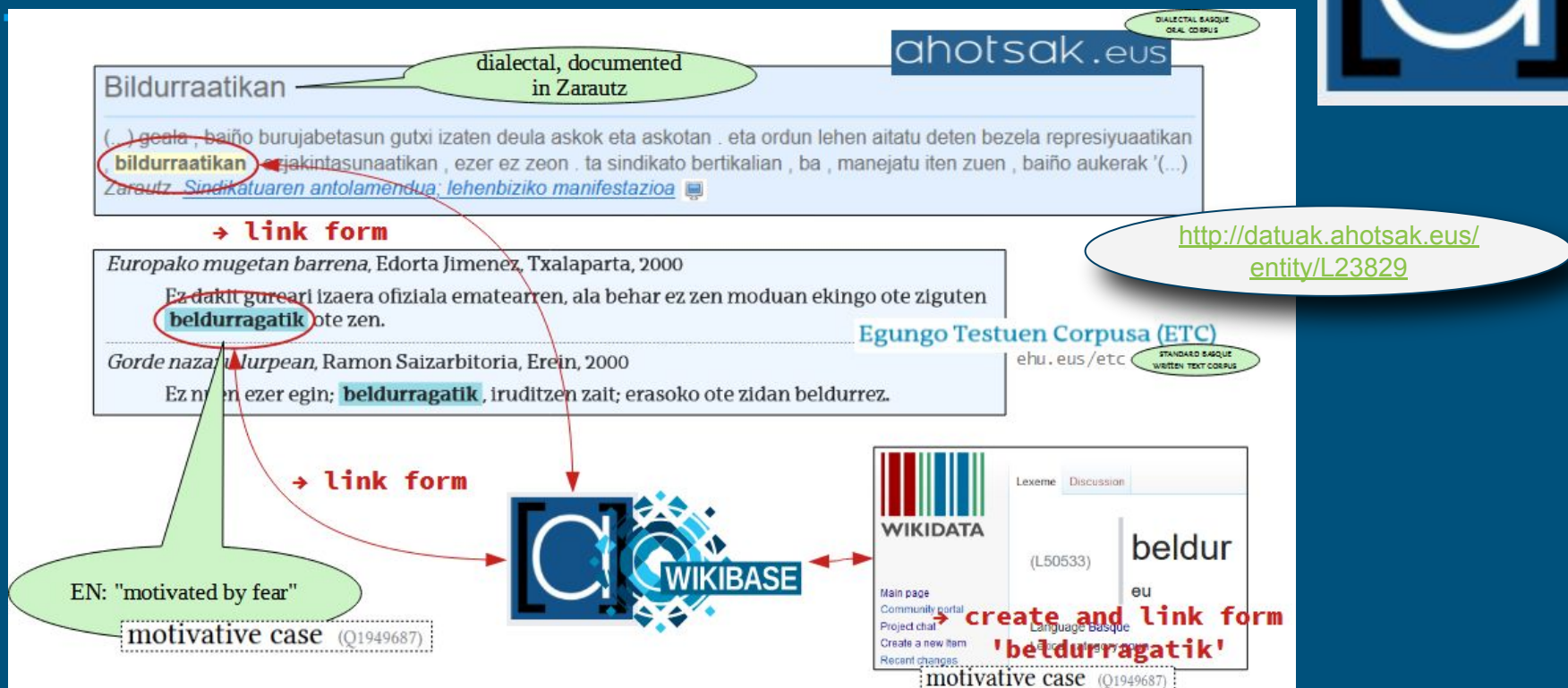
Lexical category noun

EN: "fear" (noun)

<http://datuak.ahotsak.eus>



Wikibase example 2: Ahotsak Wikibase



Lexicographical data

- **Lexeme** a.k.a. **L-entity** (`class ontolex:LexicalEntry`)
 - always has a POS associated to it
 - property `wikibase:lexicalCategory`
 - always has a lemma associated to it
 - property `wikibase:lemma`
 - always has a language associated to it
 - property `dct:language`
- **Sense** (property `ontolex:sense`)
 - sense description
 - property `skos:definition`
- **Form** (property `ontolex:lexicalForm`)
 - “grammatical features”
 - property `wikibase:grammaticalFeature`
 - “written representation”
 - property `ontolex:representation`



Wikidata lexeme: RDF representation

- Example: German “Linsengericht”

<https://www.wikidata.org/wiki/Special:EntityData/L447553.ttl>

```
wd:L447553-F2 a ontolex:Form ;  
  rdfs:label "Linsengerichtes"@de ;  
  ontolex:representation "Linsengerichtes"@de ;  
  wikibase:grammaticalFeature wd:Q110786,  
    wd:Q146233 .
```

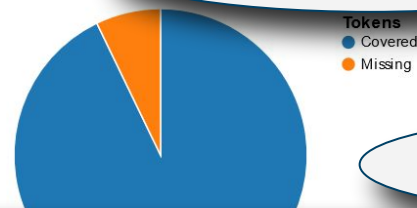
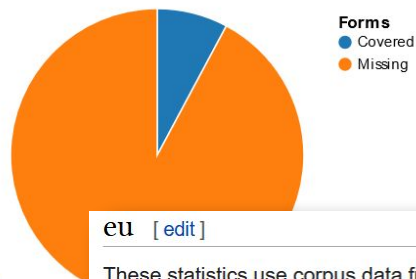
```
wd:L447553-S1 a wikibase:Sense,  
  ontolex:LexicalSense ;  
  rdfs:label "lentil dish"@en ;  
  skos:definition "lentil dish"@en ;  
  rdfs:label "Gericht aus Linsen"@de ;  
  skos:definition "Gericht aus Linsen"@de .
```

```
wd:L447553 a ontolex:LexicalEntry ;  
  rdfs:label "Linsengericht"@de ;  
  wikibase:lemma "Linsengericht"@de ;  
  dct:language wd:Q188 ;  
  wikibase:lexicalCategory wd:Q1084 ;  
  ontolex:lexicalForm wd:L447553-F1,  
    wd:L447553-F2,  
    wd:L447553-F3,  
    wd:L447553-F4,  
    wd:L447553-F5,  
    wd:L447553-F6,  
    wd:L447553-F7,  
    wd:L447553-F8,  
    wd:L447553-F9 ;  
  ontolex:sense wd:L447553-S1 .
```

Lexicographical data

en [\[edit\]](#)

- Forms in Wikidata: 108,195
- Forms in Wikipedia: 965,225
- Tokens: 1,508,248,447
- Covered forms: 75,392 (7.8%)
- Missing forms: 889,833 (92.2%)
- Covered tokens: 1,400,305,803 (92.8%)
- Missing tokens: 107,942,644 (7.2%)
- [Most frequent missing forms](#)



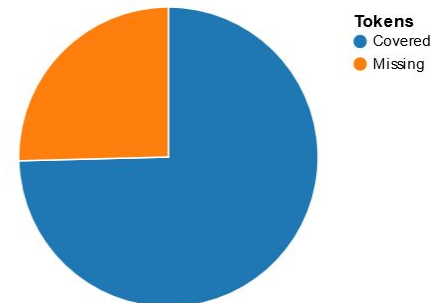
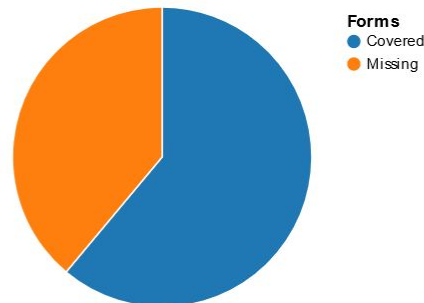
https://www.wikidata.org/wiki/Wikidata:Lexicographical_coverage#en

https://www.wikidata.org/wiki/Wikidata:Lexicographical_coverage#eu

eu [\[edit\]](#)

These statistics use corpus data from the [Leipzig Corpora Collection](#).

- Forms in Wikidata: 1,002,362
- Forms in Wikipedia: 26,466
- Tokens: 3,138,442
- Covered forms: 16,166 (61.1%)
- Missing forms: 10,300 (38.9%)
- Covered tokens: 2,341,116 (74.6%)
- Missing tokens: 797,326 (25.4%)
- [Most frequent missing forms](#)



Lexicographical data: The Vision

- Abstract Wikipedia
 - Rule- and Knowledge-Based NLG
 - Something like “Reasonator”, but for all languages
 - example Bob Marley in English:
<https://reasonator.toolforge.org/?&q=409>
 - [Denny Vrandečić](#)
- Central hub for linked lexical resources
 - “External ID” properties

(L447553)	Linsengericht	
de		
Language German		
Lexical category noun		
Statements		
described at URL	https://www.owid.de/artikel/216864	
	~ 0 references	+ add reference
		+ add value
grammatical gender	neuter	
	~ 0 references	+ add reference
		+ add value
Duden ID	Linsengericht	
	~ 0 references	+ add reference
		+ add value
DWB lemma ID	L06203	
	~ 0 references	+ add reference
		+ add value
DWDS lemma ID	Linsengericht	
	~ 0 references	

[http://www.wikidata.org/
entity/L447553](http://www.wikidata.org/entity/L447553)

P5137: “item for this sense”

[Try it on Wikidata QS](#)

[Check out this Query](#)

```
1 # German lexeme senses and corresponding English Wikipedia articles
2 select ?lexemeId ?lemma ?categoryLabel ?sense ?item ?itemLabel ?wikipedia
3
4 WHERE {
5     ?lexemeId wikibase:lemma ?lemma;
6             dct:language wd:Q188;
7             wikibase:lexicalCategory ?category;
8             ontolex:sense ?sense.
9     ?sense wdt:P5137 ?item.
10    ?wikipedia schema:about ?item .
11    filter(strstarts(str(?wikipedia),"https://en.wikipedia"))
12
13    SERVICE wikibase:label { bd:serviceParam wikibase:language "en". }
14 }
15
16 limit 100
```

Statements about L2942-S1

image



Banana.arp.750pix.jpg
750 × 536; 128 KB

▼ 0 references

item for this sense


banana

▼ 0 references

Also see:


https://www.wikidata.org/wiki/Wikidata:Lexicographical_data/Statistics/indirect_translations

P5972 “translation”


(L8381) **yaku** 

qu





Language Quechua
Lexical category noun





Statements 

Senses

L8381-S1 English clear liquid H₂O 

Statements about L8381-S1

item for this sense	 liquid water 
	▼ 0 references
	 + add reference
	 + add value

translation	 water (common liquid substance) 
	▼ 0 references
	 + add reference
	 + add value

- Links a lexeme sense (in one language) to another lexeme sense (in another language)

Check for German to
English

Some relevant properties

- P9971 (<https://www.wikidata.org/entity/P9971>) – has thematic relation
- P6593 (<https://www.wikidata.org/entity/P6593>) – hyperonym
- P5238 (<https://www.wikidata.org/entity/P5238>) – combines lexeme
 - P5980 (<https://www.wikidata.org/entity/P5980>) – object sense (restricts P5238)
- P5191 (<https://www.wikidata.org/entity/P5191>) – derived from
- P5402 (<https://www.wikidata.org/entity/P5402>) – homograph lexeme
- P9970 (<http://www.wikidata.org/entity/P9970>) – predicator for
- P6271 (<http://www.wikidata.org/entity/P6271>) – demonym of
- Also see: https://www.wikidata.org/wiki/Wikidata:Lexicographical_data/Ideas_of_queries/list_of_sense_properties

P5238: “combines lexeme”

(L228301)

Geburtstag

de

Language [German](#)
Lexical category [noun](#)

combines lexeme

Geburt

▼ 0 references

Tag

▼ 0 references

```
select ?lexemeId ?lemma ?languageLabel ?categoryLabel
(concat("{", (group_concat(concat(str(?num), ': ', ?compound_part_lemma, ' ' ); SEPARATOR=", ")), "}") as ?compound_parts)

WHERE {
    ?lexemeId wikibase:lemma ?lemma;
    dct:language wd:Q188;
    wikibase:lexicalCategory ?category;
    p:P5238 [ps:P5238 ?compound_part ; pq:P1545 ?num ] .
    ?compound_part wikibase:lemma ?compound_part_lemma .
    SERVICE wikibase:label { bd:serviceParam wikibase:language "en". }
}


group by ?lexemeId ?lemma ?languageLabel ?categoryLabel ?compound_parts
```


[Try it on Wikidata QS](#)

Lexicog. data: Community

- Documentation
 - https://www.wikidata.org/wiki/Wikidata:Lexicographical_data/Documentation
- Property entity pages
 - example [P9970](#) “predicate for”
- Property discussion pages
 - example [P5238](#) “combines lexeme”
- Telegram channel
 - members can invite you
- WikidataCon
 - [2021 iteration](#)

Group Info

 Wikidata Lexicographical data
116 members

 Discussion about Wikidata lexemes, forms, senses, and things that use them. Interactions here are covered by the Wikimedia Foundation's FSP at [w.wiki/MwM](https://www.wikidata.org/wiki/Wikidata:Lexicographical_data/Documentation)

Description

Taufik Rosman
Is there any tool for creating lexemes faster? 1 13:18

Jan Ainali
Taufik Rosman
Is there any tool for creating lexemes faster?
My go-to-tool is <https://lexeme-forms.toolforge.org/> 13:36

Nikki
what's the difference between
<https://www.wikidata.org/wiki/Q1778442>,
<https://www.wikidata.org/wiki/Q10976085> and
<https://www.wikidata.org/wiki/Q1527589> supposed to be?
www.wikidata.org
verb phrase
sentence constituent 2 17:55

and is it safe to replace [proper name](#) when used as a lexical category with [proper noun](#)? I'm assuming so since the former is a philosophy term 1 18:00

and [common name](#) (currently only used for occitan) with [common noun](#)? 1 edited 18:02

মাহির মোরশেদ owner
Nikki
and is it safe to replace...
imo yes 19:11

Nikki
what's the difference between <https://www.wikidata.org/wiki/Q1...>
the first is something like “took the dog out for a walk” (where the predicate in this case is simply ‘took out’ and the rest of it is

Related Tool: ORDIA

<https://ordia.toolforge.org/>

1. Lexeme data
 - a. Check out the [first example](#), try with another lexeme
2. Wikidata Lexeme property statistics
 - a. Load overview: <https://ordia.toolforge.org/property/>
 - b. Check out this query: [Properties used on senses](#)
 - c. Check out this query: [External IDs for German lexemes](#), adapt it to your/another language
3. Text linker (finds matches for lexeme forms)
 - a. Check out this [English example](#)
 - b. Go to “edit SPARQL query”, and change the query to *nouns*.
 - c. Create an example for your own/another language
 - d. Go to “edit SPARQL query”, and change the SPARQL so that ...

The “lexeme challenge”, a weekly contest

- Weekly renewed on <https://dicare.toolforge.org/lexemes/challenge.php>

Constitution Day, Norway — Lexemes Challenge

[Lexemes Party](#) | [Lexemes Challenge](#) | [Challenges Archive](#) | [Documentation](#)

Challenge started on 2022-05-16 12:01:17

You can help by creating new lexemes (for instance with [Wikidata Lexeme Forms](#)) and linking senses to Wikidata items using the following properties: *item for this sense* (P5137), *predicate for* (P9970), *demonym of* (P6271).

Start of the challenge:

- 24 languages
- 70 lexemes
- 70 senses
- 33% completion
- 7 medals

Current progress:

- 25 languages (+1)
- 88 lexemes (+18)
- 88 senses (+18)
- 40% completion (+7)
- 13 medals (+6)

Display language: Automatic (detected: en) Change

Wikidata	Norway (Q20)	constitution (Q7755)	parade (Q657449)	marching band (Q1426710)	waffle (Q375)	sausage (Q131419)	ice cream (Q13233)
Wikipedia	Norway	Constitution	Parade	Marching band	Waffle	Sausage	Ice cream
[eu] Basque						saibxiba	
 [nb] Bokmål	Norge nordmann	forfatning grunnlov			vaffel	korv kurv pølse	is
[bzs] Brazilian Sign Language		M532x518S2035a516x503S37 a06468x510S16d10515x483S2 1100498x486					M518x567S35a04482x483S20 340493x522S2ea0c491x542
[br] Breton						silzig	
[cs] Czech	Norsko						zmrzka zmrzlina
 [da] Danish	Norge nordmand	forfatning	optog		vaffel	pølse	is
 [en] English	Norway	constitution	parade		waffle	sausage	