Wiki + data = Wikidata

And why you should care

What is Wikidata?

- A central editable repository of **structured and linked data**, on a wiki, under a free license (CC0)
  - Pure free software; pure free data
  - Open and editable by anyone, including the ontology
- A sister project of Wikipedia, by Wikimedia
- Increasingly, where the cool kids play!

WIKIMEDIA
FOUNDATION

Structured and linked data?

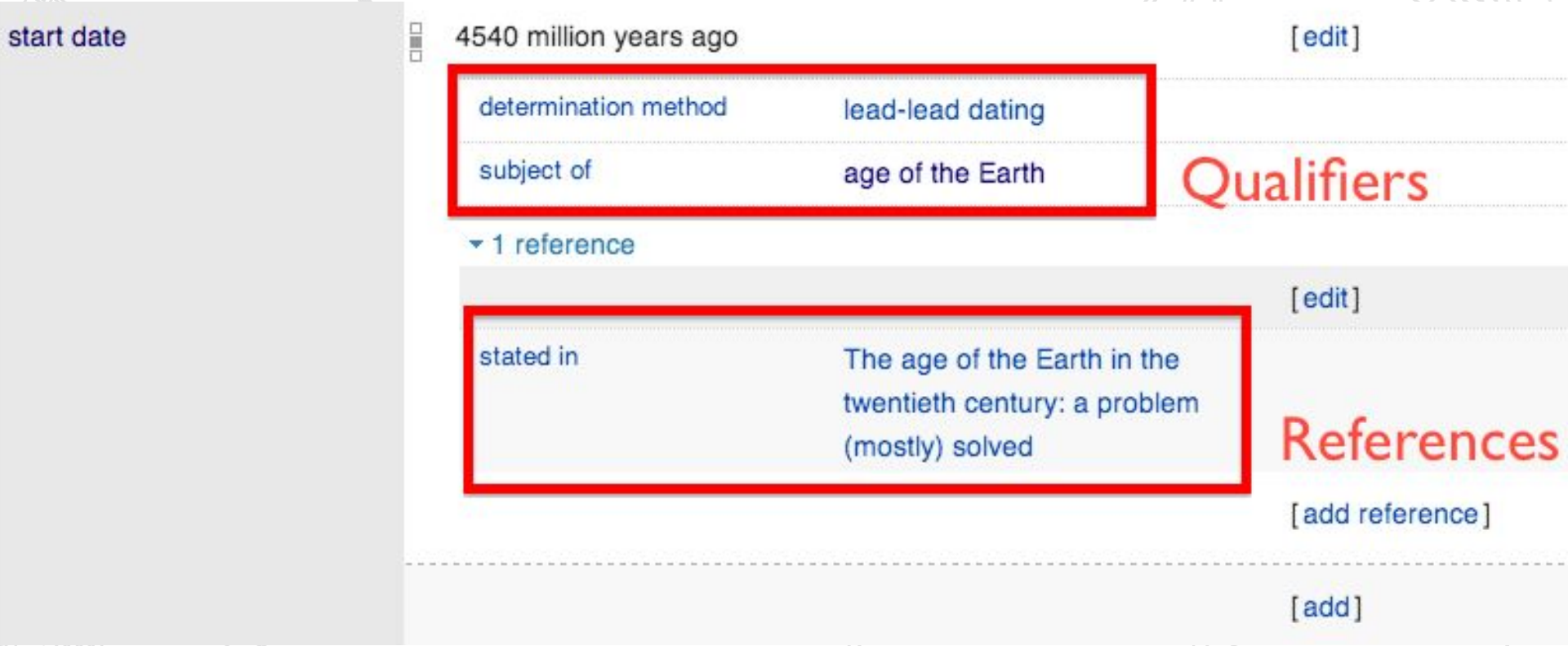
- Structured data: every piece of information is described as **a triple** -- subject, predicate, object, or as Wikidata says: item, property, value.
  - Each such triple can itself be further described/qualified with a series of triples (e.g. time range, context, aspect, provenance)
- Data statements **link** to each other, enabling **discovery** and **reasoning**.

WIKIMEDIA
FOUNDATION

Sounds complicated!

Item: Earth (Q2)

Item: Earth (Q2)



Still sounds pretty complicated.

Why should I care?

WIKIMEDIA
FOUNDATION

Wikidata has a lot of different uses!

WIKIMEDIA FOUNDATION

(Just) A handful of Wikidata uses

1. Describe data with flexible level of detail or abstraction
2. Centralize data and avoid duplication of effort
3. Avoid multiple copies falling out of sync
4. Connect disparate IDs and align datasets
5. Serve as discovery platform for data elsewhere
6. Massively multilingual aligned vocabularies
7. Lateral querying across arbitrary vectors

WIKIMEDIA
FOUNDATION

Hmm... got examples?

Sir Edmund Hillary

...by any other ID...

Identifiers

VIAF ID	9847762 ▸ 3 references	edit
		+ add value
ISNI	0000 0001 0868 4310 ▸ 1 reference	edit
		+ add value
Library of Congress authority ID	n50035179 ▸ 1 reference	edit
		+ add value

Sir Edmund Hillary

...by any other ID...

Dictionary of New Zealand Biography	6h1 0 references + add reference + add value	edit
British Museum person-institution	194556 0 references + add reference + add value	edit
WikiTree person ID	Hillary-33 0 references + add reference + add value	edit
Quora topic ID	Sir-Edmund-Hillary	edit

Sir Edmund Hillary

...by any other ID...

Te Papa person ID	2145 0 references	edit + add reference + add value
NE.se ID	edmund-hillary 0 references	edit + add reference + add value

And about 40 other IDs!

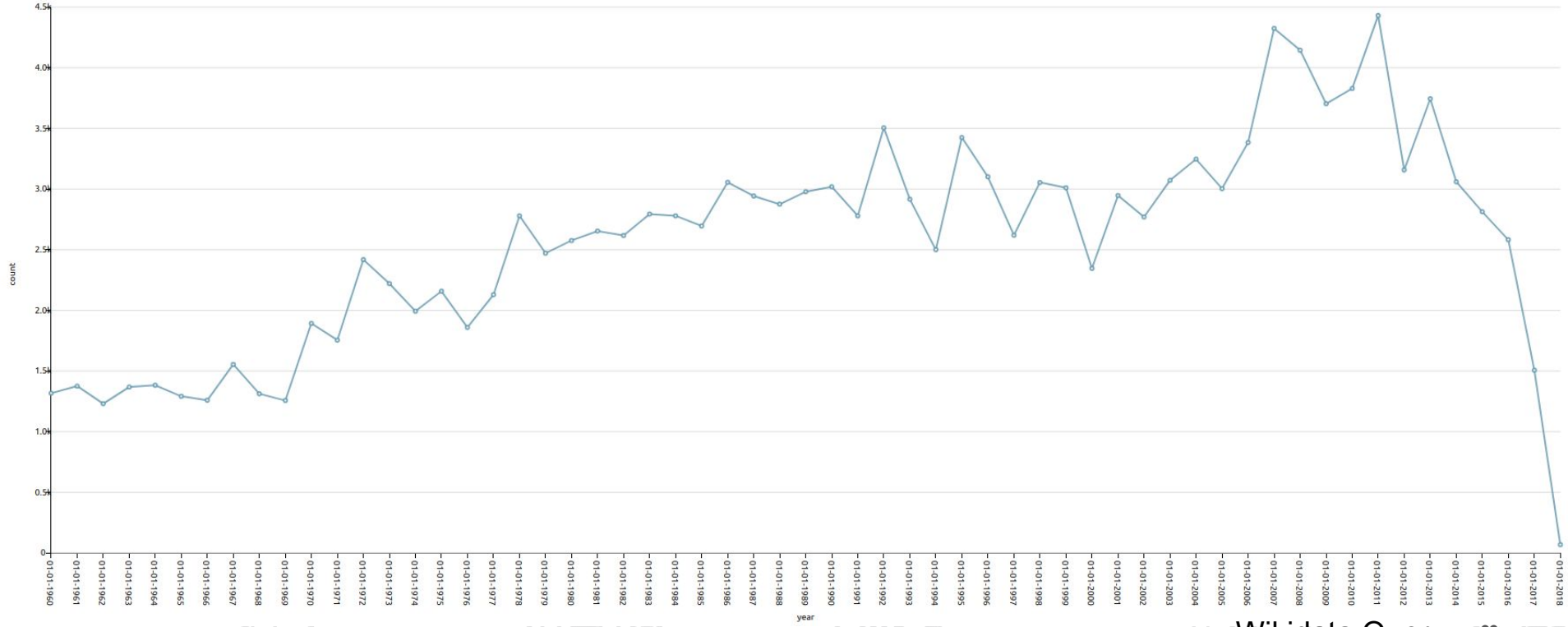
Famous kiwis

by # of languages in which they are covered on Wikipedia

person	personLabel	sitelinks
wd:Q9123	Ernest Rutherford	146
wd:Q33817	Edmund Hillary	117
wd:Q129817	Russell Crowe	109
wd:Q4465	Peter Jackson	81
wd:Q57783	John Key	62
wd:Q13476175	Lorde	62
wd:Q133112	Lucy Lawless	61

Wikidata Query = ♥

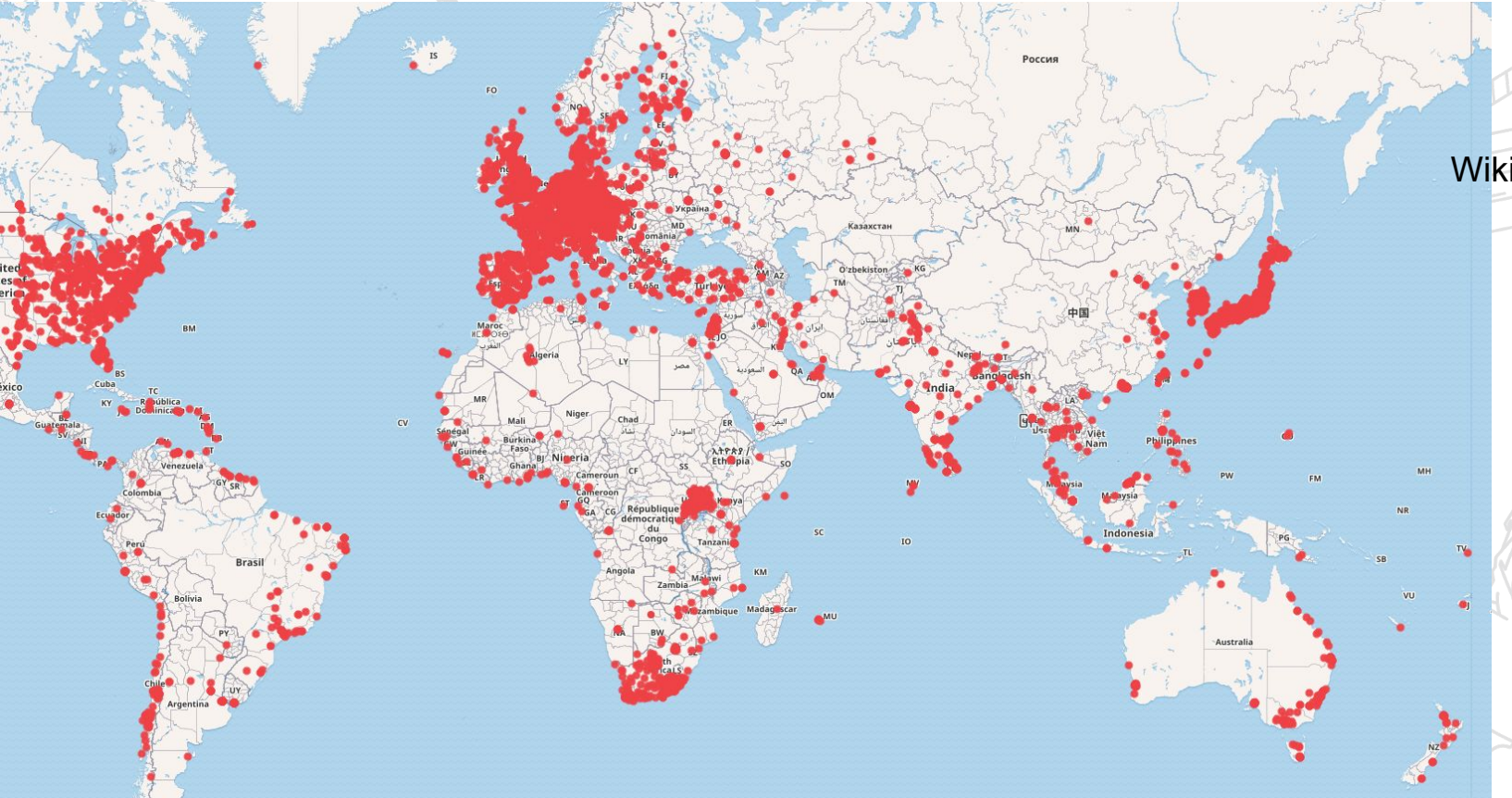
New species by year



Wikidata Query = ♥

Hospitals in the world

SELECT * WHERE { ?item wdt:P31*/wdt:P279* wd:Q16917; wdt:P625 ?geo . }



Wikidata Query = ♥

Mind the gap!

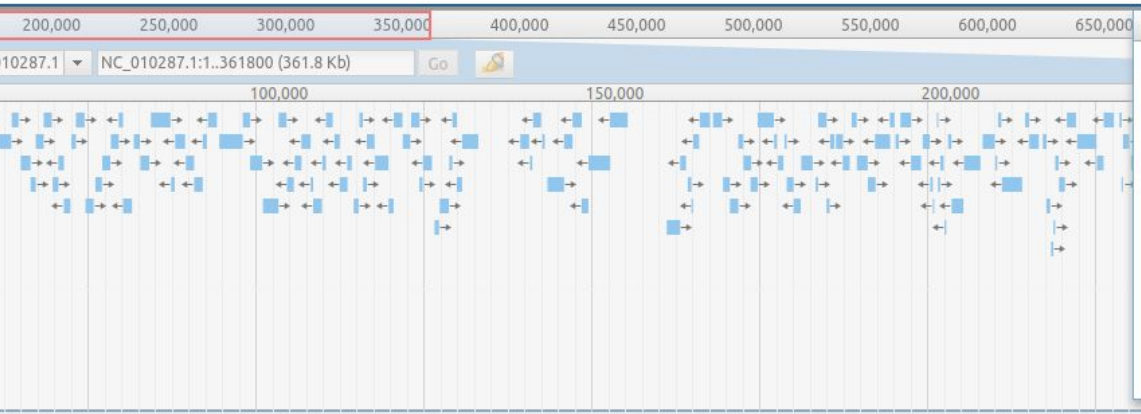
Amazing things built on top of Wikidata

WIKIMEDIA
FOUNDATION

WikiGenomes.org

Gene Search: e.g. CTL0002

72



CTL0096

Attributes

description	metal transporting ATPase CTL0096
entrezGeneID	5858085
refSeq	NC_010287.1
uri	http://www.wikidata.org/entity/Q21171887

Region sequence

FASTA

```
>NC_010287.1 NC_010287.1:117833..119811 (- strand)
length=1979
TGTCTCCGCAACTTTTTTCCTCTCCATTTTCTCGAGAATTACTCAGCGATTTTTTTGAA
TCAGGGATGGCGGAAGAGAATAGCCCTCTGCTCTCTCAAAAAAACCGTCGTTTAAGCCA
AAATTTAACCTTAAAATCTGCCTATATCTCCTTGGCTTTATACTTAGGATCGCTTCTTT
CTCATTGGATAGGATATCAGGCTCTCTCCTCTTTACTTCTCATTCTTACTTTTTTCTTA
```

Genes: 859

Crotos art browser

Crotos

Cosmos
Callisto
Lab

Search

139 Results

Everything ▾
Everything
Painting
Sculpture
Drawing
Print
Photograph
Mosaic
Installation
Handscroll
Tapestry
Stained glass

Creator : **Michelangelo** ☑

-40000

1 2 3 4 5 ... 7 **Random**

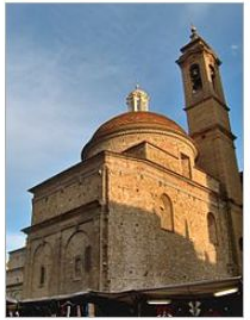
Pitti Tondo
Michelangelo - Bargello

Young Slave
Michelangelo - Galleria dell'Accademia

The Drunkenness of Noah
Michelangelo - Sistine Chapel

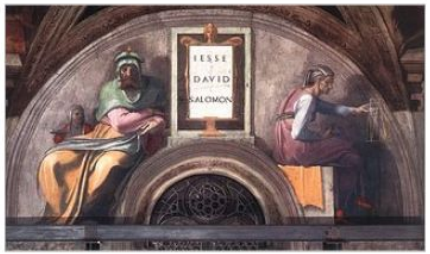
es

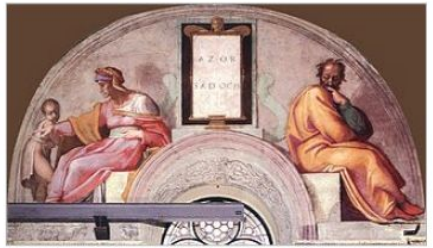
Atlas Slave
Michelangelo - Galleria dell'Accademia



New Sacristy
Michelangelo - Basilica of San Lorenzo

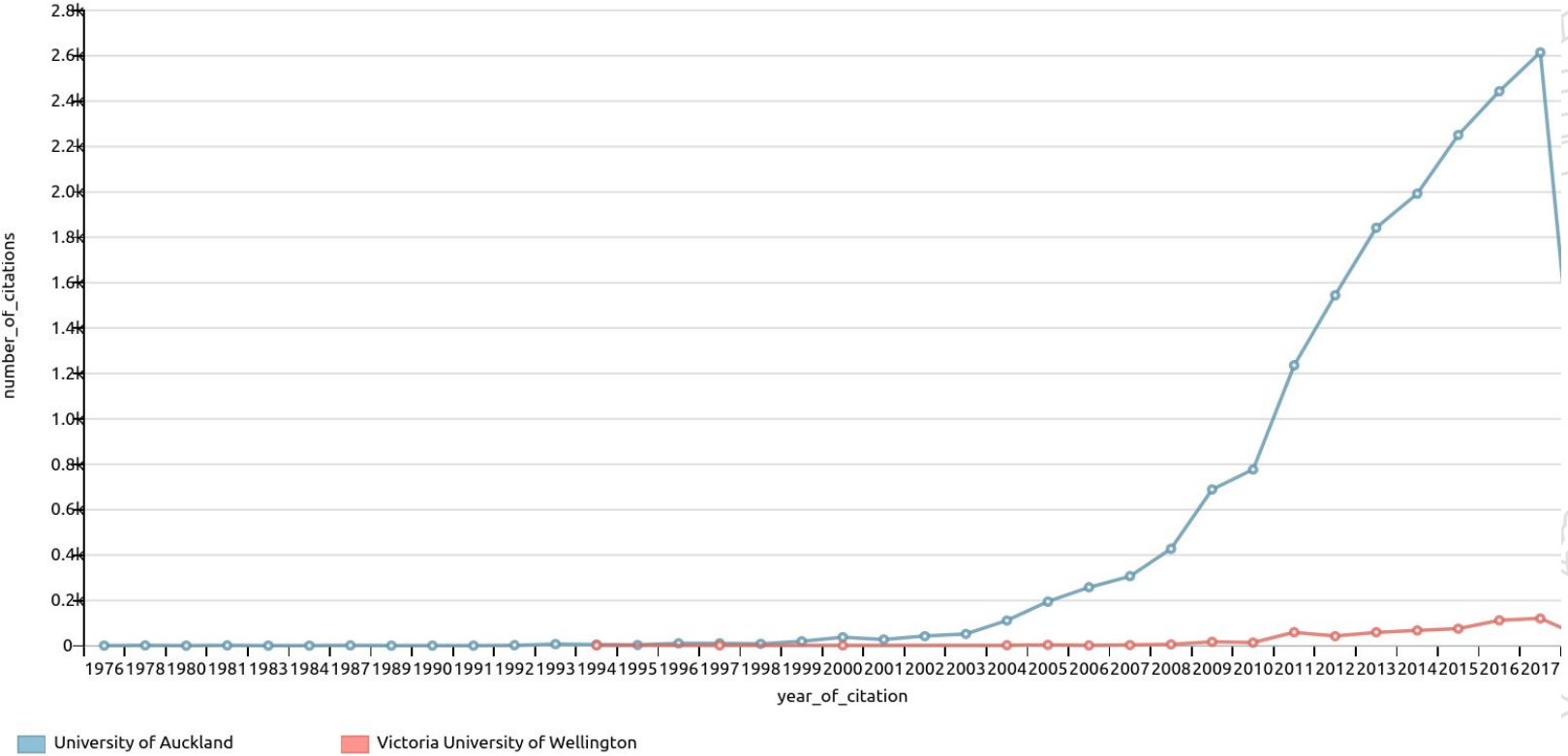
ca





Scholia

Citations per year



Explore and compare scholars, journals, institutions

I'm just getting started!

WIKIMEDIA
FOUNDATION

...but this is a lightning talk...

So catch me later or drop me a line, for more!

(lexicographical data! Describing media files with structured data!)

WIKIMEDIA
FOUNDATION

Thank you for listening

(share this!)

asaf@wikimedia.org
@abartov