

FOUNDATION

### Open access policy



The Wikimedia Foundation's mission is to disseminate open knowledge effectively and globally. In keeping with this mission, the Wikimedia Foundation supports research in areas that benefit the Wikimedia community. We aim to make any work produced with our support openly available to the public and reusable on Wikimedia projects.

#### Minimalist user data collection

Revision histories are public data
No 3rd-party collection or sharing of user data
Private user data removed after 90 days



# What can I do?

#### NLP

- Topic Models
- Word Embeddings
- Quality

#### Graphs

- Page links
- Users graph

#### Geolocation

#### Socio-technical

- User Influence
- Cultural Differences
- Online Deliberation
- Articles Popularity

#### Multimedia

o Audio, Video, Image Analysis

And more...



# Research Resources

- Statistics
- Dumps
- MediaWiki Utilities
- Wikimedia API
- Page Views
- SQL Replicas / Quarry
- Clicks
- Event Stream
- Wikidata
- Commons
- ORES
- PAWS



#### New York University



From Wikipedia, the free encyclopedia

Coordinates: 40°43'48"N 73°59'42"W

This article is about the private institution founded in 1831. For other and similar uses, see University of New York.

"Nyu" redirects here. For the district in Japan, see Nyū District, Fukui. For the Elfen Lied character, see List of Elfen Lied characters § Nyu.

New York University (NYU) is a private . The template Infobox university is being considered for nonprofit research university based in New York City. Founded in 1831, NYU's primary campus is in Greenwich Village with other campuses throughout New York City.[12][13] NYU students can also study abroad at its degree-granting campuses in NYU Abu Dhabi and NYU Shanghai, as well as its 11 academic centers in Accra, Berlin, Buenos Aires, Florence, London, Madrid, Paris, Prague, Sydney, Tel Aviv, and Washington, D.C.[14][15]

In 2018, NYU was ranked amongst the top 30 universities internationally by the Academic Ranking of World Universities, Times Higher Education World University Rankings, and U.S. News & World Report. [16][17][18] For the

#### merging. > **New York University**



Latin: Universitas Neo Eboracensis

Perstare et Motto

praestare (Latin)

Motto in English To persevere and to excel

Type Private[1] Established 1831[1]

\$4.1 billion Endowment

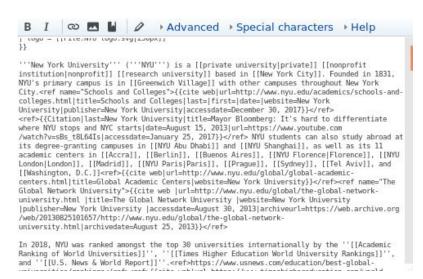
(2018)[2]

#### View source for New York University

← New York University

You do not have permission to edit this page, for the following reason:





#### New York University: Revision history

? Help

View logs for this page (view filter log)

From year (and earlier): 2018 From month (and earlier): all V Tag filter:

External tools: Find addition/removal • Find edits by user • Page statistics • Pageviews • Fix dead links

For any version listed below, click on its date to view it.

For more help, see Help:Page history and Help:Edit summary.

(cur) = difference from current version, (prev) = difference from preceding version,

m = minor edit, → = section edit, ← = automatic edit summary

(newest | oldest) View (newer 50 | older 50) (20 | 50 | 100 | 250 | 500)

• (cur | prev) 
• 22:29, 12 November 2018 Tom Stevens (talk | contribs) . . (121,369 bytes) (+428) . . (→Athletics) (Taq: Visual edit)

- (cur | prev) 04:58, 10 November 2018 GreenC bot (talk | contribs) . . (120,941 bytes) (-111) . . (Wayback Medic 2.1)
- (cur | prev) 07:25, 8 November 2018 Kiwi128 (talk | contribs) . . (121,052 bytes) (-23) .
   . (source official website URL from Wikidata)
- (cur | prev) O4:51, 4 November 2018 ElKevbo (talk | contribs) . . (121,075 bytes) (+1.085) . . (no. we don't need all of this information in the lead: discuss in Talk)



#### Talk: New York University

From Wikipedia, the free encyclopedia

This is the talk page for discussing improvements to the New York University article.

This is not a forum for general discussion of the article's subject.



# **Public Content**

- XML dumps
- Mediawiki API
- SQL Replicas

#### https://dumps.wikimedia.org/

[[Artificial intelligence]] is a recurrent theme in [[science fiction]], whether [[utopia]]n, emphasising the potential benefits, or [[dystopian]], emphasising the dangers.

The notion of machines with human-like intelligence dates back at least to [[Samuel Butler (novelist)|Samuel Butler]]'s 1872 novel ''[[Erewhon]]''.

#### ==Background==

[[File:Didrachm Phaistos obverse CdM.jpg|thumb|A [[didrachm]] coin depicting the winged [[Talos]], an [[automaton]] or [[artificial being]] in [[ancient Greece|ancient Greek]] myth, c. 300 BC]]



# Quarry / Sql Replicas

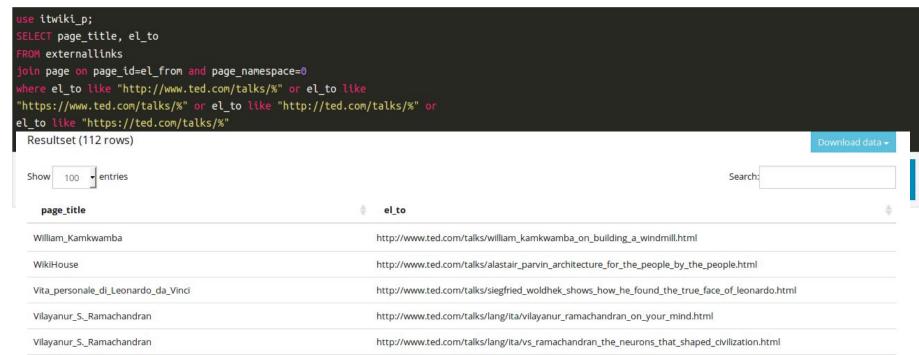
Quarry is a public querying interface for Wiki Replicas, a set of live replica SQL databases of public Wikimedia Wikis.

- https://quarry.wmflabs.org
- https://upload.wikimedia.org/wikip edia/commons/9/94/MediaWiki\_1.2 8.0\_database\_schema.svg

#### TED talk links, it:Wikipedia

#### It's collaborative and searchable

Fork of TED talk links, it: Wikipedia by Pigsonthewing This query is marked as a draft by Diego (WMF). Publish Click to add description...



## Wikidata

Wikidata is a free and open knowledge base that can be read and edited by both humans and machines.

Wikidata acts as central storage for the **structured data** of its Wikimedia sister projects including Wikipedia, Wikivoyage, Wikisource, and others.

In October 2018, there 23 M of edits in Wikidata, compared with around 4 M edits in English Wikipedia



- https://www.wikidata.org/
- https://query.wikidata.org/





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

Interaction

Help About Wikipedia Community portal Recent changes Contact page

Tools

What links here Related changes Upload file Special pages Permanent link Page information Wikidata item Cite this page Article Talk Read View source View history Search Wikipedia

#### New York University

Coordinates: 40°43′48″N 73°59′42″W

**(+)** 

From Wikipedia, the free encyclopedia

This article is about the private institution fou. 1 in 1831. For other and similar uses, see University of New York.

"Nyu" redirects here. For the district in Japan, see Nyū District, Fukui. For the Elfen Lied character, see List of Elfen Lied characters § Nyu.

**New York University (NYU)** is a private nonprofit research university based in New York City. Founded in 1831, NYU's primary campus is in Greenwich Village with other campuses throughout New York City. [12][13] NYU students can also study abroad at its degree-granting campuses in NYU Abu Dhabi and NYU Shanghai, as well as its 11 academic centers in Accra, Berlin, Buenos Aires, Florence, London, Madrid, Paris, Prague, Sydney, Tel Aviv, and Washington. D.C. [14][15]

In 2018, NYU was ranked amongst the top 30 universities internationally by the *Academic Ranking of World Universities*, *Times Higher Education World University Rankings*, and *U.S. News & World Report*. [16][17][18] For the class that matriculated in the fall of 2018, NYU received 75,037 applications for its undergraduate programs; this is more applications than any other private college or university in the United States. [19]

Alumni include heads of state, royalty, eminent scientists, inventors and entrepreneurs, media figures, founders and CEOs of Fortune 500 companies, and astronauts. [20][21][22] As of 2018, 37 Nobel Laureates, 7 Turing Award winners, 5 Fields Medalists, over 30 Academy Award winners, over 30 Pulitzer Prize winners, and hundreds of members of the National Academies of Sciences and United States Congress have been affiliated as faculty or alumni. Globally, NYU is ranked 7th by the Times Higher Education World University Rankings for producing alumni who are millionaires, and 4th by

The template Infobox university is being considered for merging. >

#### **New York University**



Latin: Universitas Neo Eboracensis

Motto Perstare et

Motto in English To persevere and

to excel

praestare (Latin)

Туре

Private[1]

Established

1831[1]

Endowment

\$4.1 billion (2018)[2]

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#### New York University (Q49210)

private research university in New York, NY, United States

NYU | University of the City of New York | University of New York

#### ▼In more languages <sup>Configure</sup>

Language	Label	Description	Also known as
English	New York University	private research university in New York, NY, United States	NYU University of the City of Ne University of New York
Spanish	Universidad de Nueva York	universidad estadounidense	
Traditional Chinese	紐約大學	No description defined	
Chinese	紐约大学	私立研究型大学在美国纽约州纽约市	

All entered languages

#### Statements

instance of	private university	✓ edit
	+0 references	add reference
	research university	∕edit
	+0 references	• add reference
	private not-for-profit educational institution 1 reference	<b>∕</b> edit
		add value

		_
Wik	kipedia (59 entries) / edit	
ar	جامعة نيويورك	
ast	Universidá de Nueva York	
azb	نیویورک بیلیمیوردو	
az	Nyu-York Universiteti	
be_	x_old Нью-Ёрскі ўнівэрсытэт	
be	Нью-Ёркскі ўніверсітэт	
bg	Нюйоркски университет	
bn	নিউ ইয়ৰ্ক বিশ্ববিদ্যালয়	
ca	Universitat de Nova York	
CS	New York University	
da	New York University	
de	New York University	
em	Università 'd New York	
en	New York University 9	
eo	Universitato de Novjorko	
es	Universidad de Nueva York	
et	New Yorgi Ülikool	
eu	New Yorkeko Unibertsitatea	
fa	دانشگاه نیوبورک	
fi	New Yorkin yliopisto	
fr	Université de New York 🦞	
gl	Universidade de Nova York	
he	אוניברסיטת ניו יורק	
hi	न्यूर्वेकं विश्वविद्यालय	
hu	New York Egyetem	
	Նյու Յորքի համալսարան	
id	Universitas New York	

✓ edit

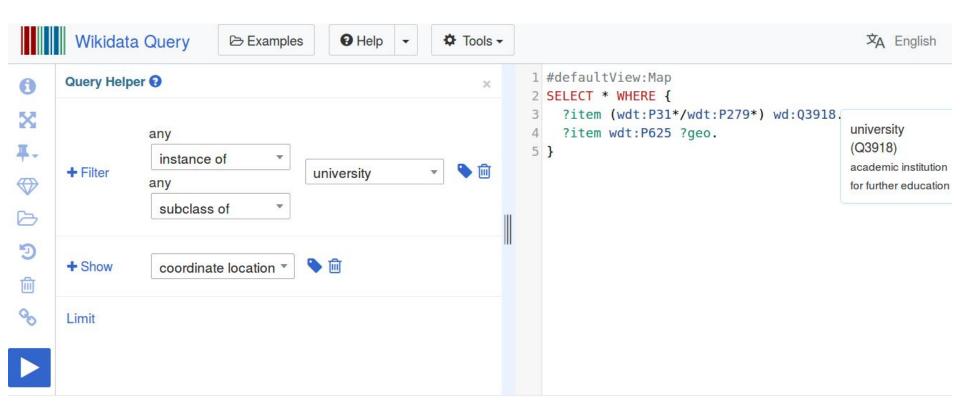


NYU07.JPG 2,592 × 1,952; 2.42 MB

• 0 references

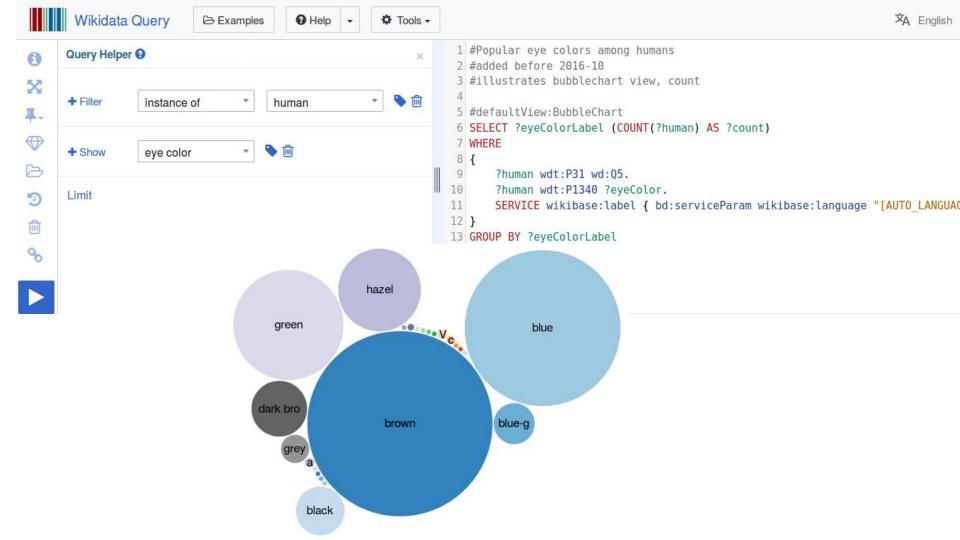
founded by	Albert Gallatin  • 0 references		
country	● United States of America  • 0 references		
located in the administrative territorial entity	<ul><li>Manhattan</li><li>▶1 reference</li></ul>		
coordinate location	€ 40°43'48"N, 73°59'42"W  • 0 references		

#### https://query.wikidata.org





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# Wikimedia Commons

Wikimedia Commons (or simply Commons) is an online repository of free-use images, sound, and other media files.

As of 2018, the repository contains over **44 million free** media files, managed and editable by registered volunteers. In July 2013, the number of edits on Commons reached 100,000,000

#### https://commons.wikimedia.org/wiki/Main\_Page





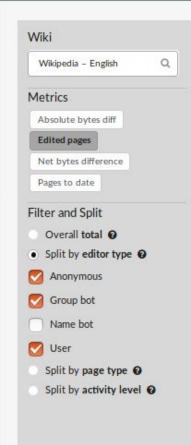
# Wikimedia Statistics

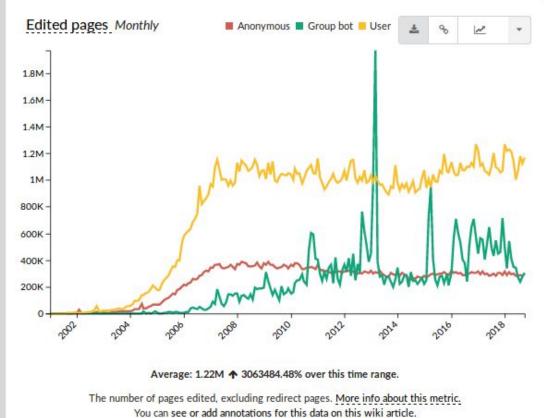
#### Live dashboards about:

- Editing
- Reading
- Users

https://stats.wikimedia.org/v2







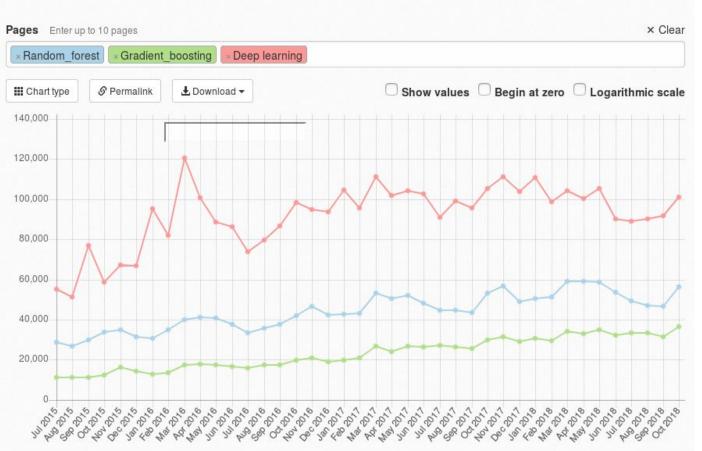
# Page Views

This page documents the Pageview API (v1), a public API developed and maintained by the Wikimedia Foundation that serves analytical data about article pageviews of Wikipedia and its sister projects. With it, you can get pageview trends on specific articles or projects; filter by agent type or access method, among other things.

https://wikitech.wikimedia.org/wiki/Analytics/AOS/Pageviews

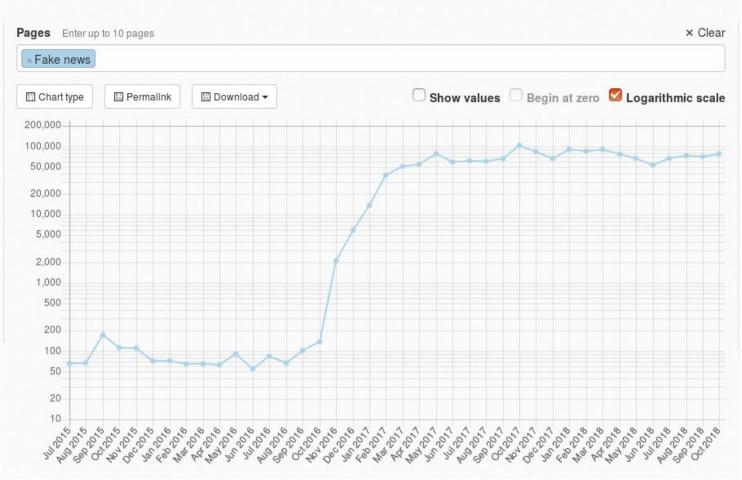
#### Pageviews Analysis

Comparison of pageviews across multiple pages



#### Pageviews Analysis

Comparison of pageviews across multiple pages



### **Topviews Analysis**Most viewed pages of a project

5.

6.

7.

8.

9.

10.

FIFA World Cup

Cristiano Ronaldo

Ant-Man and the Wasp

Deaths in 2018

Demi Lovato

List of FIFA World Cup finals

Date type Date  Monthly July 2018		Project en.wikipedia.org		Platform All		
						Exclude
hover-t	to-exclude					
Searc	ch					
Some	pages listed may be false posit	ives. known-false-positives-text			Permalink	Download ▼
Rank	Page		Edits	Editors	Pagevi	ews
1.	2018 FIFA World Cup		533	176	8,614,8	41
2.	Exo (band)		70	14	5,786,9	31
3.	Croatia		74	28	4,961,832	
4.	Kylian Mbappé		224	53	3,621,8	30

178

124

345

1,986

40

625

74

66

98

197

20

152

3,591,619

3,522,853

3,436,411

3,297,083

2,943,525

2,916,170

#### **Langviews Analysis**

Pageviews of a page across all languages

• Chart

E List

Do another query

#### Jair Bolsonaro 10/22/2018 - 11/11/2018

\_\_\_\_\_

□ Perm	alink 🗵 Dow	vnload <del>▼</del>				
# Language			Page title Badges	Pageviews 🖫	Daily average	
totals	num-langua	ges	unique-titles		2,388,527	113,739
1	pt		Jair Bolsonaro		1,156,777	55,085
2	en		Jair Bolsonaro		583,581	27.790

			=,000,0=1	,
1	pt	Jair Bolsonaro	1,156,777	55,085
2	en	Jair Bolsonaro	583,581	27,790
3	es	Jair Bolsonaro	217,074	10,337
4	fr	Jair Bolsonaro	142,608	6,791
5	de	Jair Bolsonaro	89,745	4,274





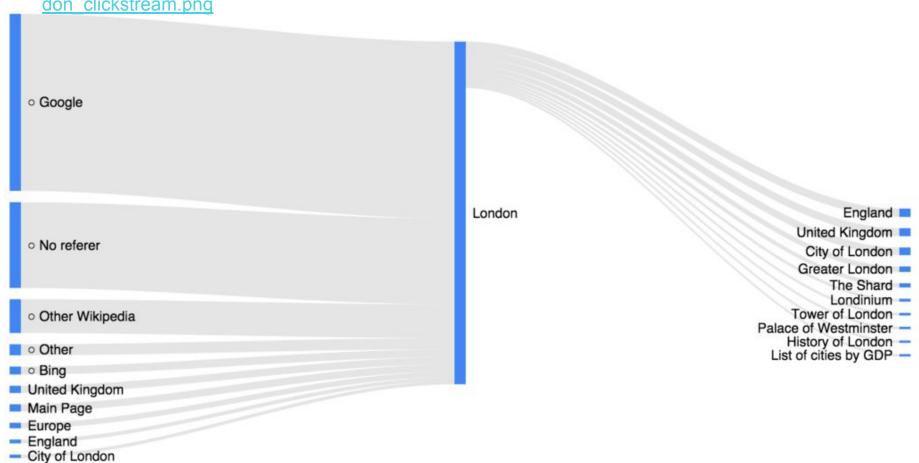
https://stats.wikimedia.org/v2/#/es.wikipedia.org/reading/pageviews-by-country

# Click dataset

The Wikipedia Clickstream dataset contains counts of (referer, resource) pairs extracted from the **request logs of Wikipedia**. A referer is an HTTP header field that identifies the address of the webpage that linked to the resource being requested. The data shows how people get to a Wikipedia article and what links they click on.

Automatic monthly releases of datasets for Wikipedia in English, Russian, German, Spanish and Japanese.

 https://meta.wikimedia.org/wiki/Research: Wikipedia\_clickstream https://upload.wikimedia.org/wikipedia/commons/thumb/0/02/London\_clickstream.png/1024px-London\_clickstream.png



### Ores

ORES (Objective Revision Evaluation Service) is a web service and API that provides machine learning as a service for Wikimedia projects maintained by the Scoring Platform team.



http://ores.wikimedia.org





http://ores.wmflabs.org/scores/enwiki/damaging/638307884

#### http://ores.wmflabs.org/scores/enwiki/damaging/638307884

In 2015 Million, is collaborative with [Dilahost Euryphenhold and in saming [William Endod], developed "[The Chit Mercarig" and adaptation of the work by the Florosin subtre [Qiven Florosin]. The play proteined at Mel 13, Macchinese Bearnations Februaring" and [Qiven reduced in http://www.nation.com/developed-coll-servariations/file-The Coll Monison Robert Vitters, Million Bushysterium, Million Calaboration — 2019 (Contradiction — 2019) (Contradiction — 2

In 2013 Whom, is rollaboration selfs [Milliad Dayprindew], and setaming (William Dates), developed "[The CNC Montes plays]" in objection of the sent by the Plasters within glaces Robards, "The stay premiered at NeE-12, Macchanism international Football with (Clore withors) in 15-20 American flatters (Monte, Nikhail Dayprindew), William Collegation is 2015/secretables = 2013-12-20 Jecticals = Nativalentes in New Indianal Feating Policy is in the Collegation of the Collegation in 2015/secretables = 2013-12-20 Jecticals = Nativalentes in Nativalentes in

```
"damaging": {
"prediction": false,
"probability": {
    false": 0.8683,
    true": 0.1317
}
```

English Wikipedia revisions as seen by editors (left) and as scored by ORES' "damage" prediction model (right).

https://blog.wikimedia.org/2015/11/30/artificial-intelligence-x-ray-specs/



# Wikimedia Toolforge

Toolforge is a hosting environment for developers working on services that provide value to the Wikimedia movement. These services allow developers to easily do ad hoc analytics, administer bots, run webservices, and generally create tools to help editors and other volunteers in their work. The environment also includes access to a variety of data services.

https://tools.wmflabs.org/



### **PAWS**

A Web Shell (PAWS) is a Jupyter notebooks deployment that has been customized to make interacting with Wikimedia wikis easier.

#### https://paws.wmflabs.org

#### Wikimedia Public Resources for Research

In this notebook you will find a set of **working examples** to connect Wikimedia Research Resources, to jupyter notebooks, importing the data to Pandas Dataframes. The list of resources covered are:

- · Quarry (https://quarry.wmflabs.org)
- Pages Views (https://wikitech.wikimedia.org/wiki/Analytics/AQS/Pageviews)
- Event Stream (https://wikitech.wikimedia.org/wiki/EventStreams)
- Wikimedia API (https://www.mediawiki.org/wiki/API:Main\_page)
- ORES (https://www.mediawiki.org/wiki/API:Main\_page)

#### Quarry + Pandas

#### Load quarry

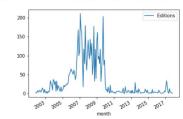
- parse\_dates = [0] tells pandas to parse data from column 0
- index\_col = 0, tells pandas to set column 0 as index (makes easy to plot, among other things)
- To modify the topic, check this query <a href="https://quary.wmflabs.org/query/22898">https://quary.wmflabs.org/query/22898</a> and modify page\_tile field, run the query and click on Download file and right click on csv and select Copy Link

```
In [2]: %matplotlib inline
    import pandas as pd

brazil = pd.read_csv('https://quarry.wmflabs.org/run/215651/output/0/csv?download=true',parse_date
    s=[0],index_col=0)
    biology = pd.read_csv('https://quarry.wmflabs.org/run/215652/output/0/csv?download=true',parse_dat
    es=[0],index_col=0)
```

In [2]: biology.plot()

Out[2]: <matplotlib.axes.\_subplots.AxesSubplot at 0x7f539b626278>





### **Event Stream**

EventStreams is a web service that exposes continuous streams of **structured event data**. It does so over HTTP using chunked transfer encoding following the Server-Sent Events protocol. EventStreams can be consumed directly via HTTP, but is more commonly used via a client library.

- <a href="https://wikitech.wikimedia.org/wiki/EventStreams">https://wikitech.wikimedia.org/wiki/EventStreams</a>
- http://listen.hatnote.com/



# Working Examples

http://paws-public.wmflabs.org/paws-public/User:Diego\_(WMF)/WikiMediaPublicTools.ipynb

https://github.com/digitalTranshumant/Wiki-examples

