Ryerson University

Bibliometrics - Analysis on Publications

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Outline

- Problem Statement
- Details of Data Set
- Technology Used
- Data Visualizations

Problem Statement

- Bibliometrics : It turns the main tool of science, quantitative analysis, on itself. Essentially, bibliometrics is the application of quantitative analysis and statistics to publications such as journal articles and their accompanying citation counts.
- Data Source : www.scopus.com
- To perform the bibliometrics analysis on the data extracted through query based retrieval

Ryerson University Library

Scopus

Search Sources Lists RULA Search Everything

GM

Document search

Compare sources

Documents Authors Affiliations Advanced

Search tips

Search

data visualization,D3 , data analysis

E.g., "Cognitive architectures" AND robots

Article title, Abstract, Keywords

Limit

Reset form Search

Search history

Combine queries...

e.g. #1 AND NOT #3

1	ALL (data AND visualization,d3 AND , AND data AND analysis)	2,112 document results

Top of page

Help improve Scopus

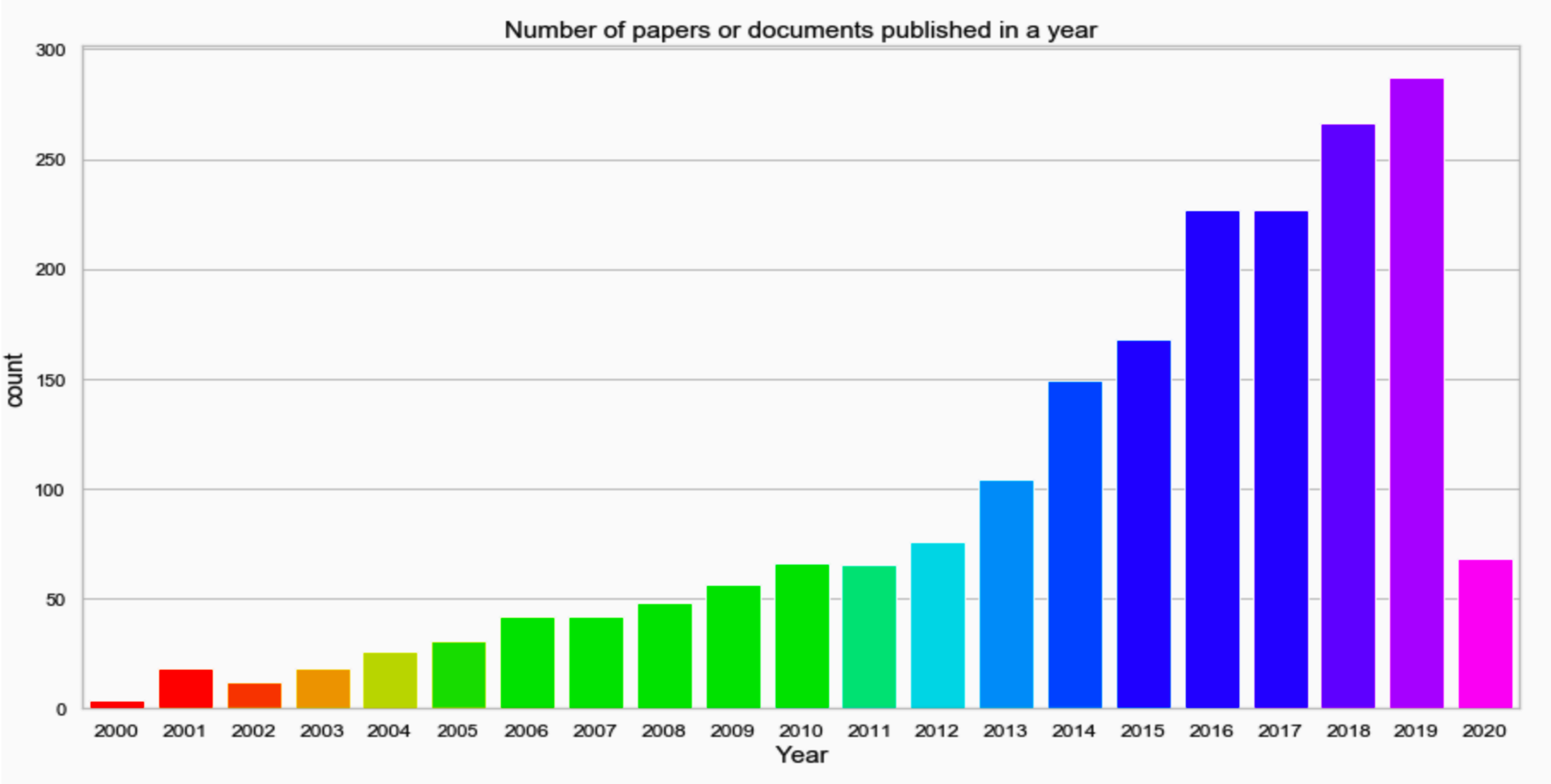
Details of Data Set

Source/Index	Category	Time period	Query used to extract the data	No of articles received	No of records per article
Scopus	Articles, reviews, proceeding papers, editorial material and book chapters	2000-2020	TS = “data AND visualization,D3, AND , data AND analysis”	2112	47

Technology

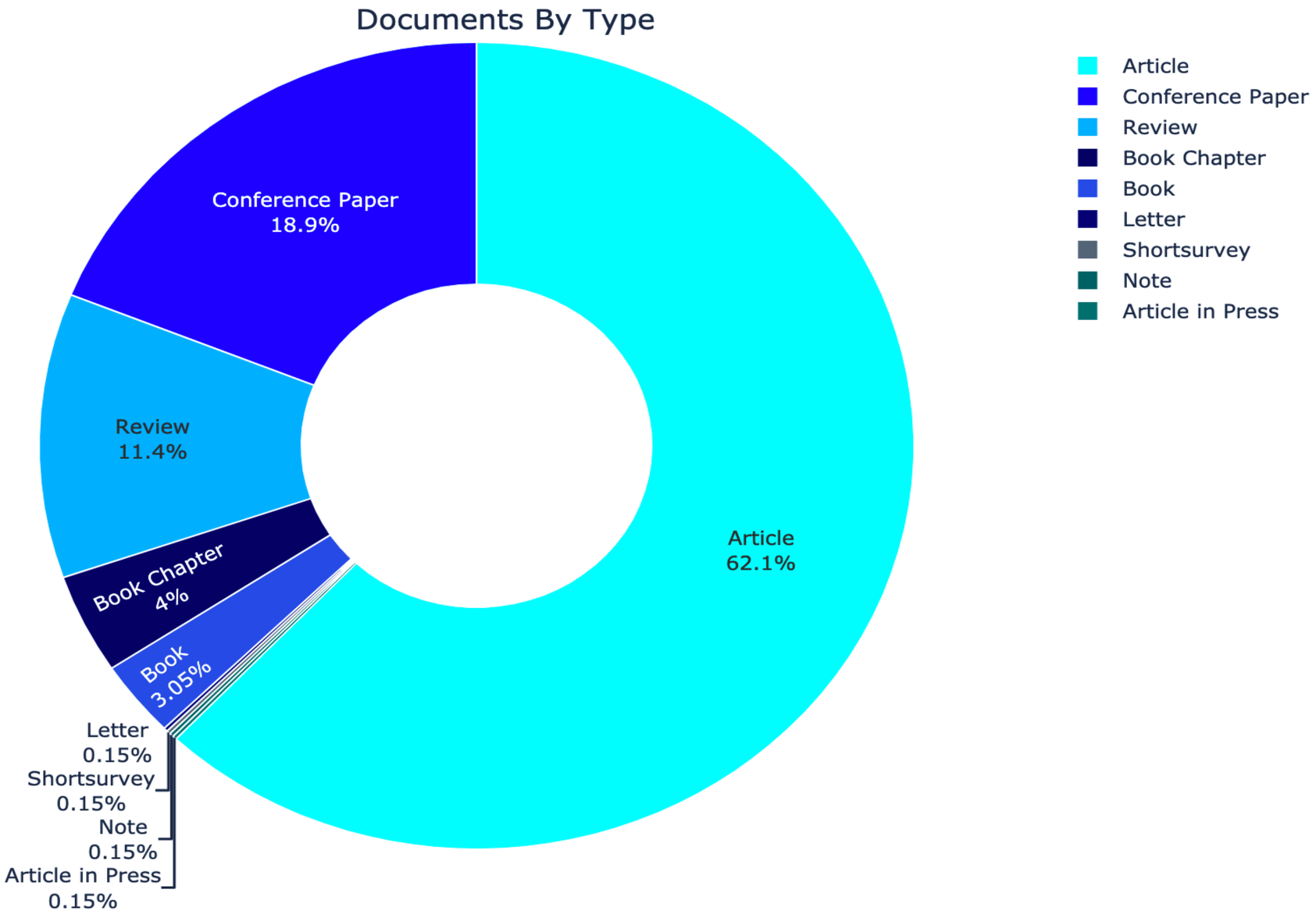
plotly
matplotlib
bokeh
Plotting in Python
seaborn
Scatter Text
Altair
pandas
ggplot

Annual Scientific Production

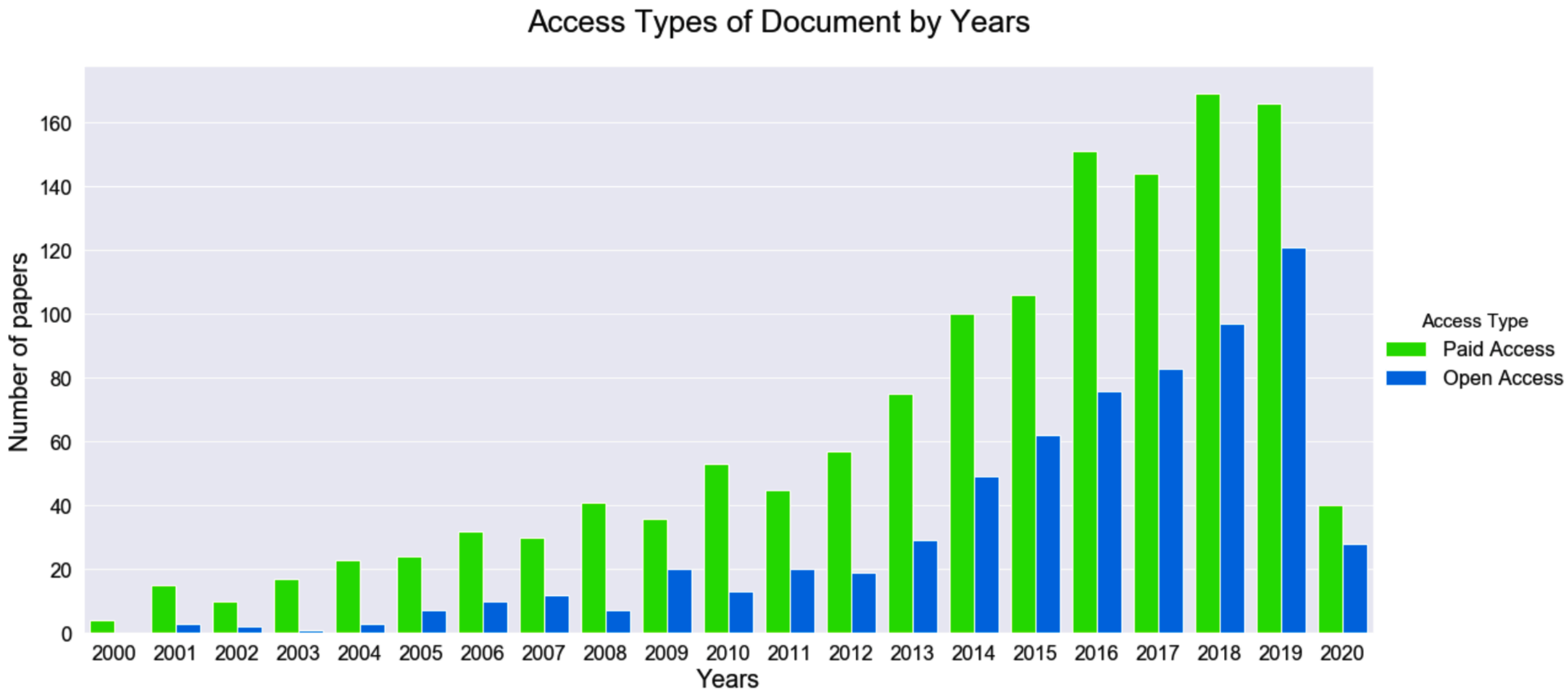


Word cloud to extract most Important words in Abstract

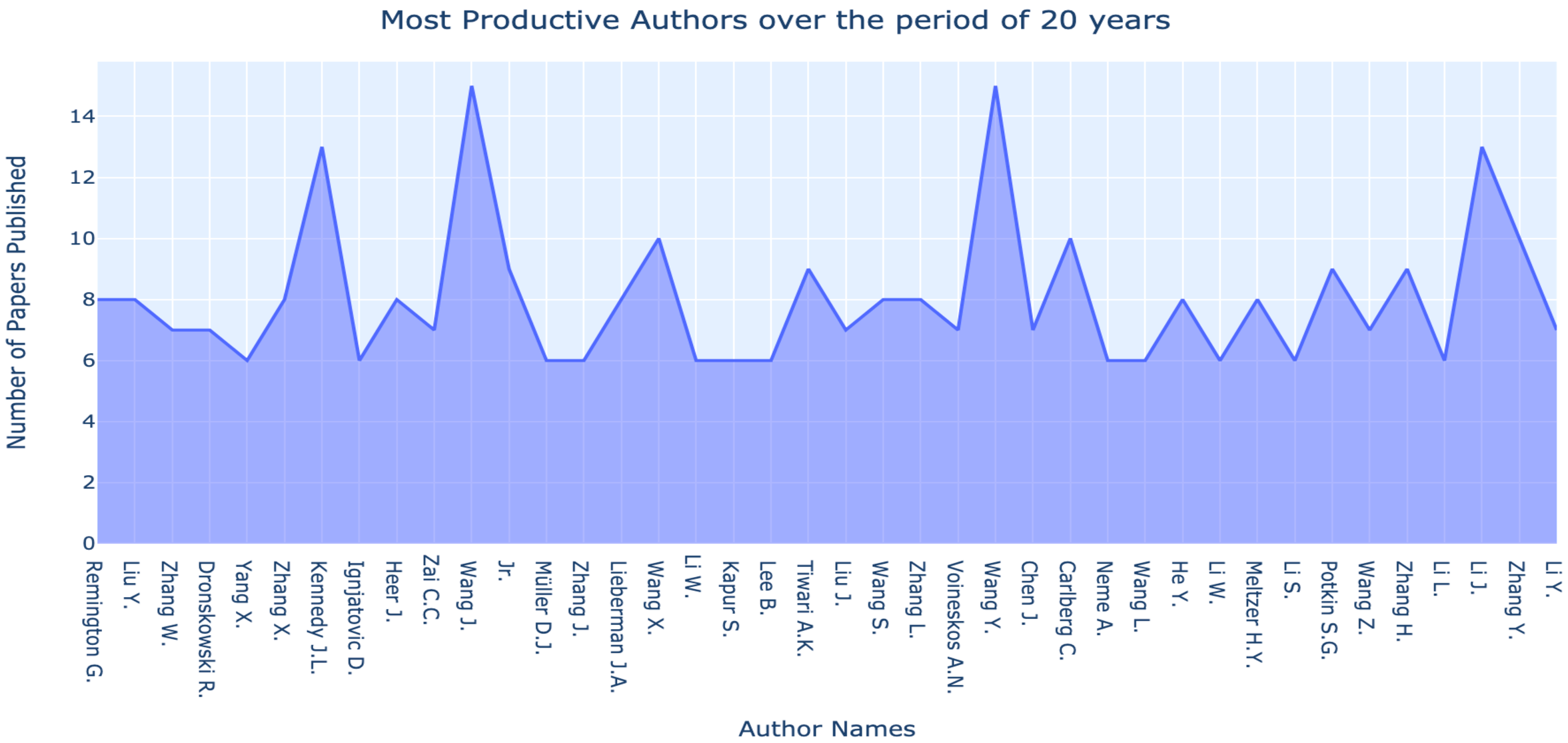
Types of Documents in Data



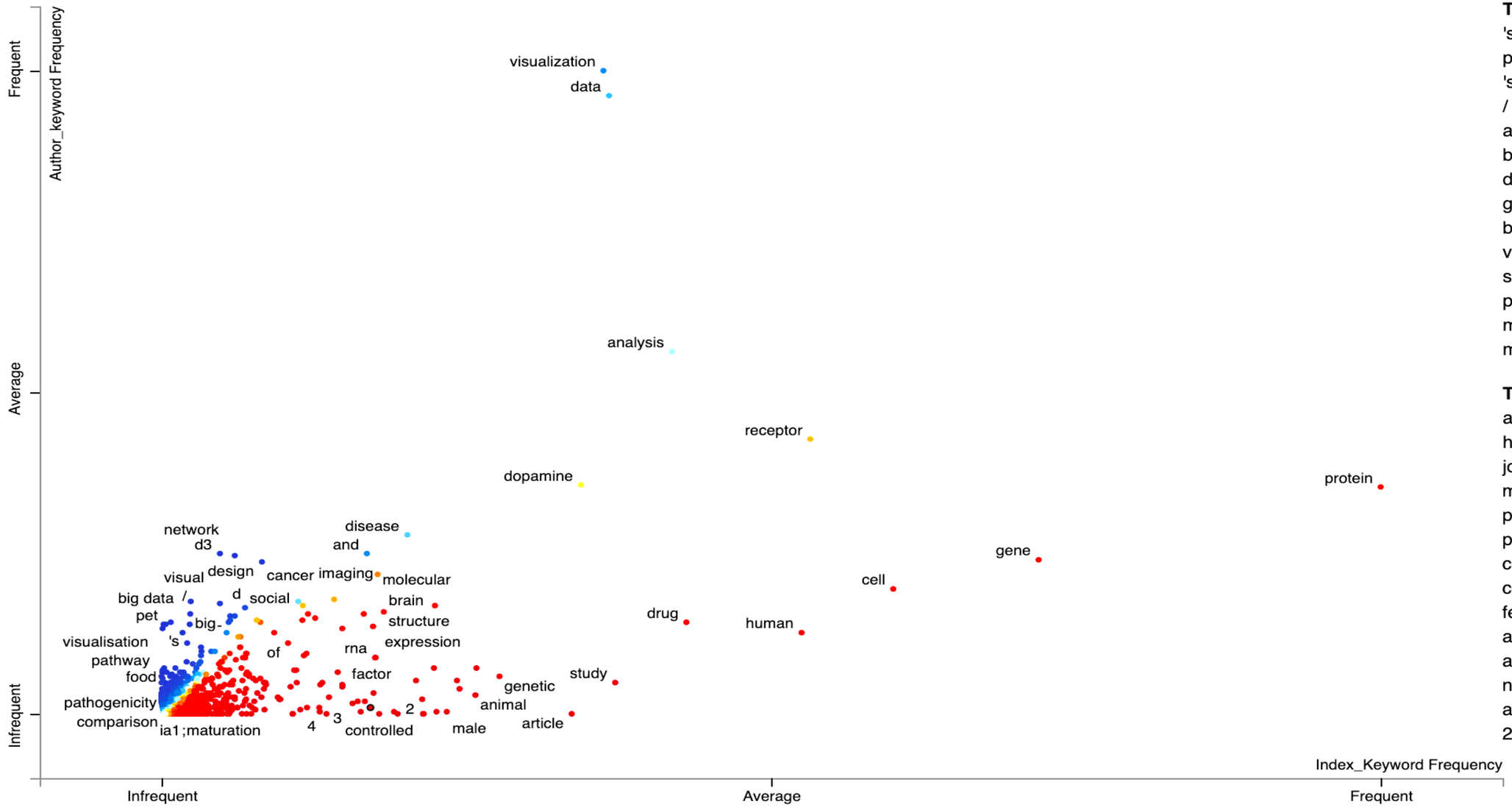
Access Type of Documents per year



Most productive Authors



Scatter Text to show the importance of keywords on the basis of Frequency



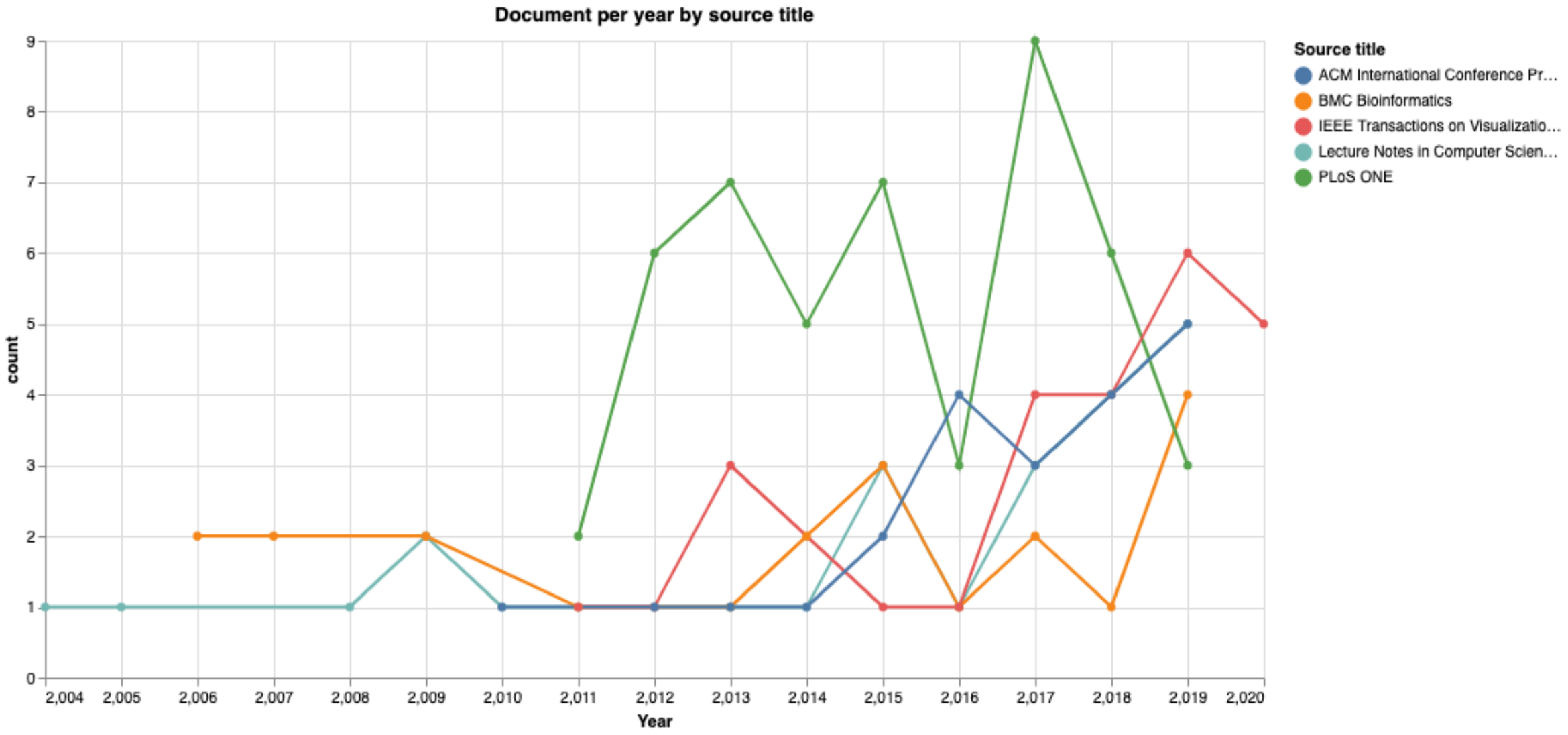
Top Author_keyword	Characteristic
's	nonhuman
pet	microrna
's disease	dopamine
/	transcriptome
analytics	calcitriol
big	raclopride
d3	colecalciferol
graph	accumbens
big data	upregulation
visualisation	striatum
seq	dopaminergic
parkinson 's	visualization
mri	positron
modeling	transcriptomics
	quinpirole
Top Index_Keyword	neuroimaging
article	polymorphism
humans	tomography
journal	unindexed
male	tetrahydro
priority	octapeptin
priority journal	multimerization
controlled	scintiscanning
controlled study	epigenetics
female	clozapine
adult	putamen
aged	visualizations
nonhuman	carbomethoxy
animal	cyclin
2	neuroleptic

Author_keyword document count: 1,341; word count: 13,760
Index_Keyword document count: 1,694; word count: 106,466

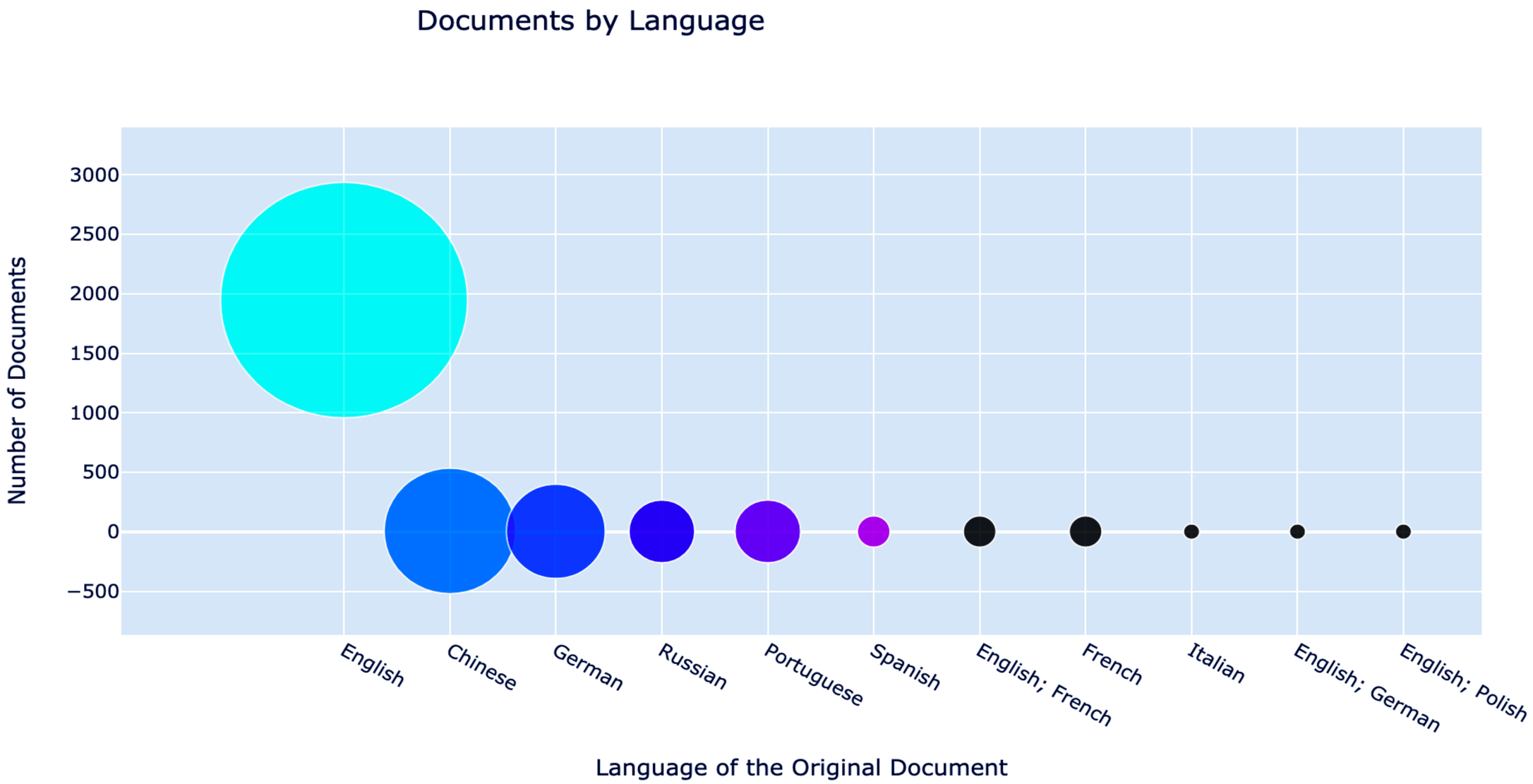
Search for term

Type a word or two…

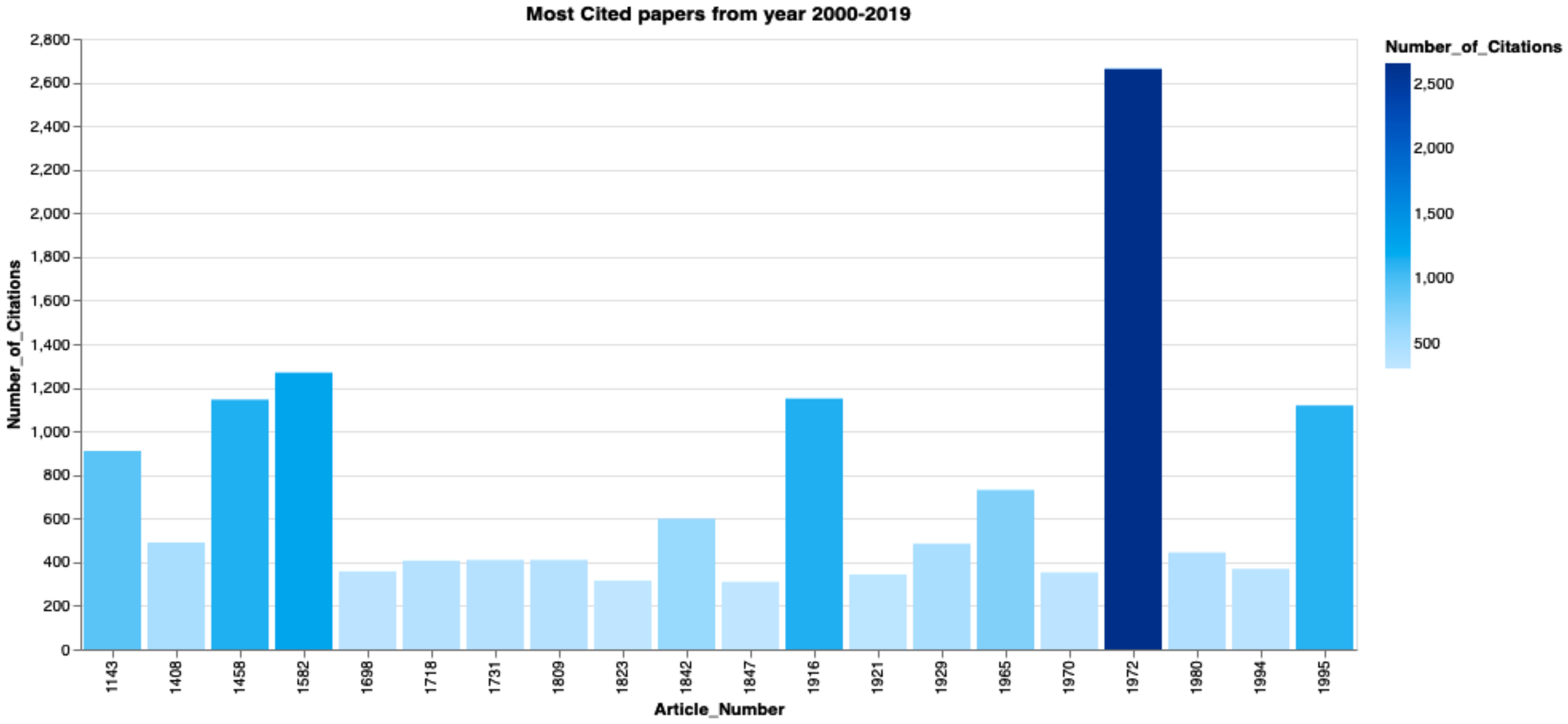
Articles by source per year



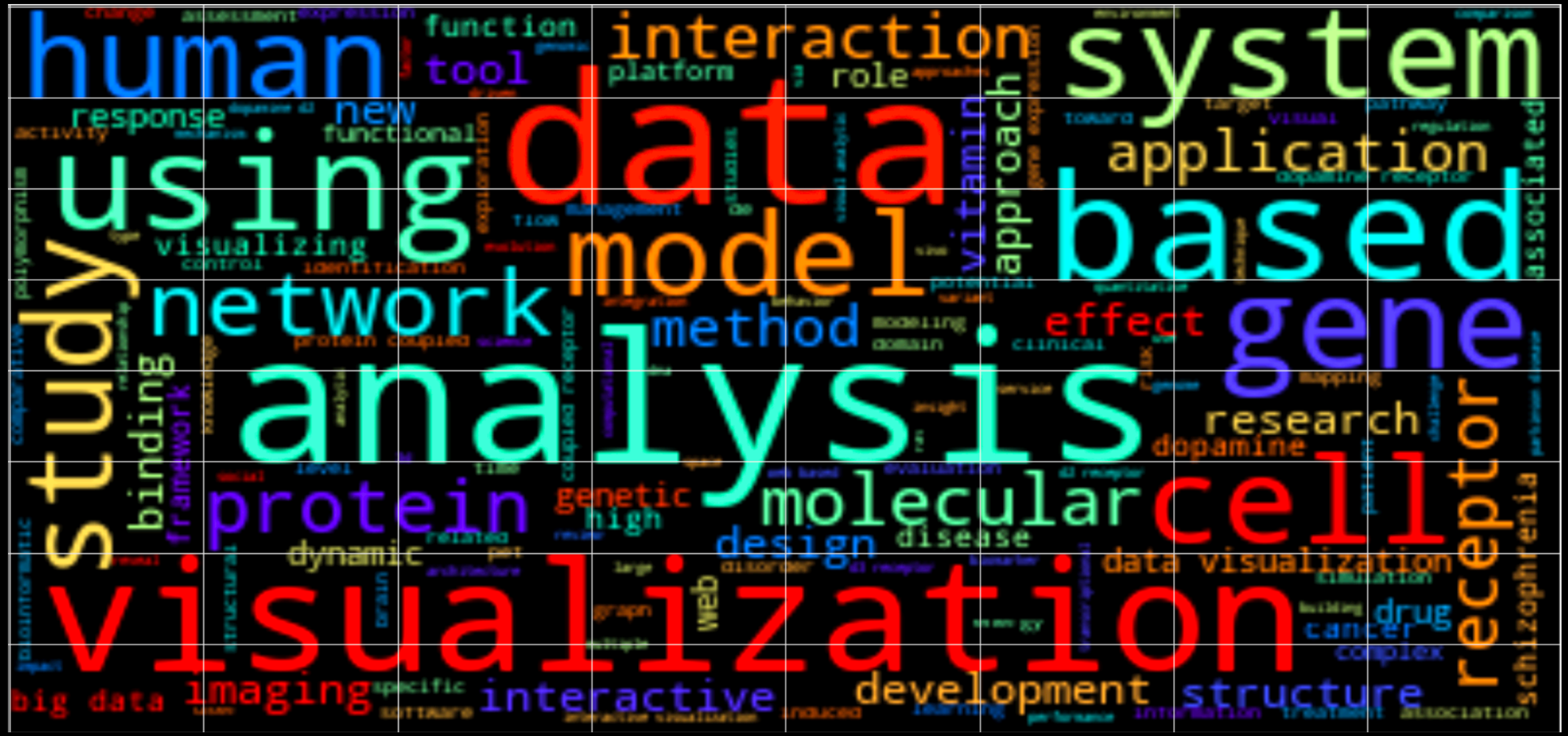
Documents by original Language



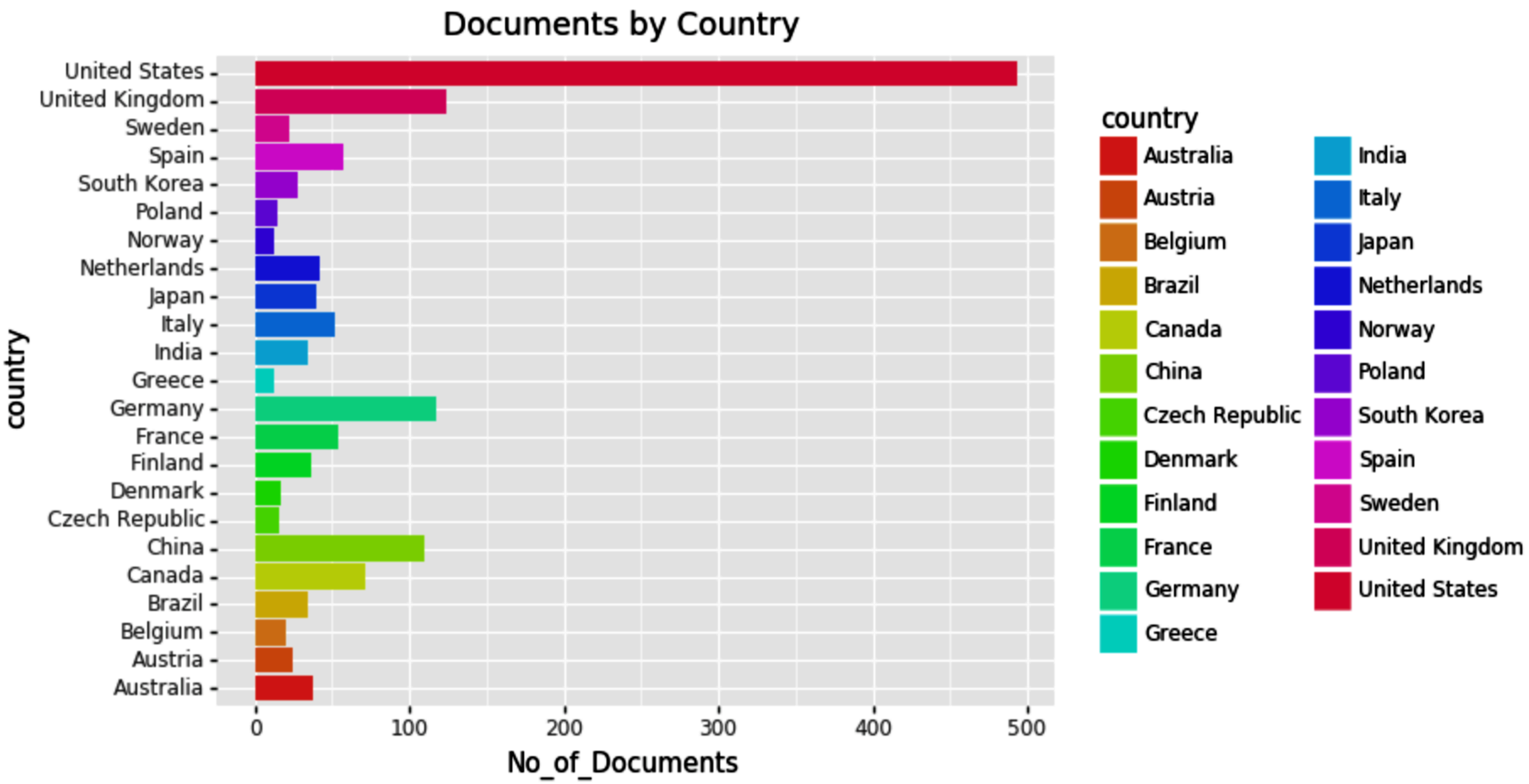
Most Cited Articles



Most Important words in Research paper Titles



Articles published by countries



Conclusion

From annual scientific production, most number of Papers are published in the year of 2019

From the pie chart, 62.1 % of the documents belongs to Article class

As seen from the double bar chart Number of papers in paid access Category are more than open access category for the given years

Wang Y. and Wang J. have published more than 14 papers over the time period of 20 years

In Scatter Text, Frequent words in Author keywords Category is Data and visualization and in Index keywords Protein

In the source title trends, “PLoS One” shows higher trend as compared to other Sources

Article#1972 is the Most cited Article, having more than 2500 citations

United States has published approximately 500 papers which makes this Country as a major contributor in research for a given data

Thank you