TED

أكاديمية سدايا
SDAIA Academy

TED's Talk using Topic Modelling

Banan Alhethlool

Ghadah Alharbi

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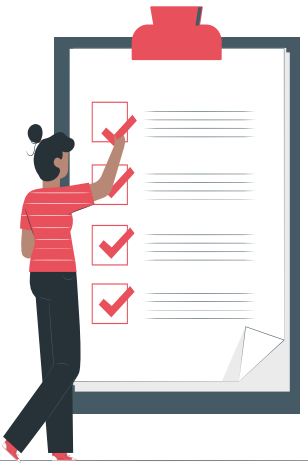
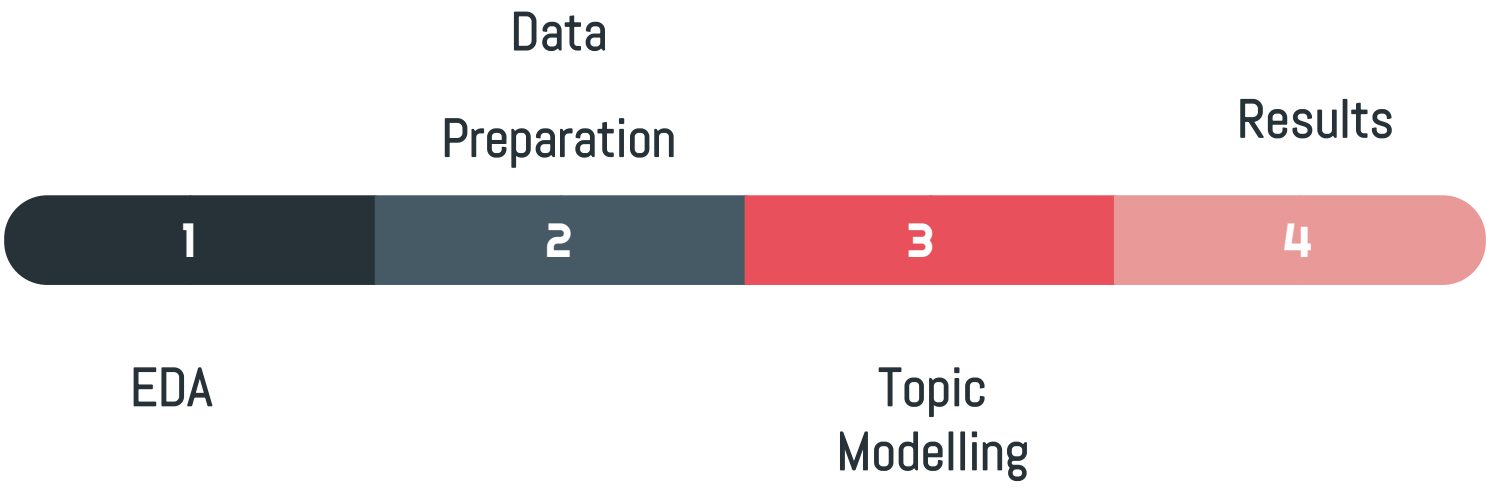


Introduction

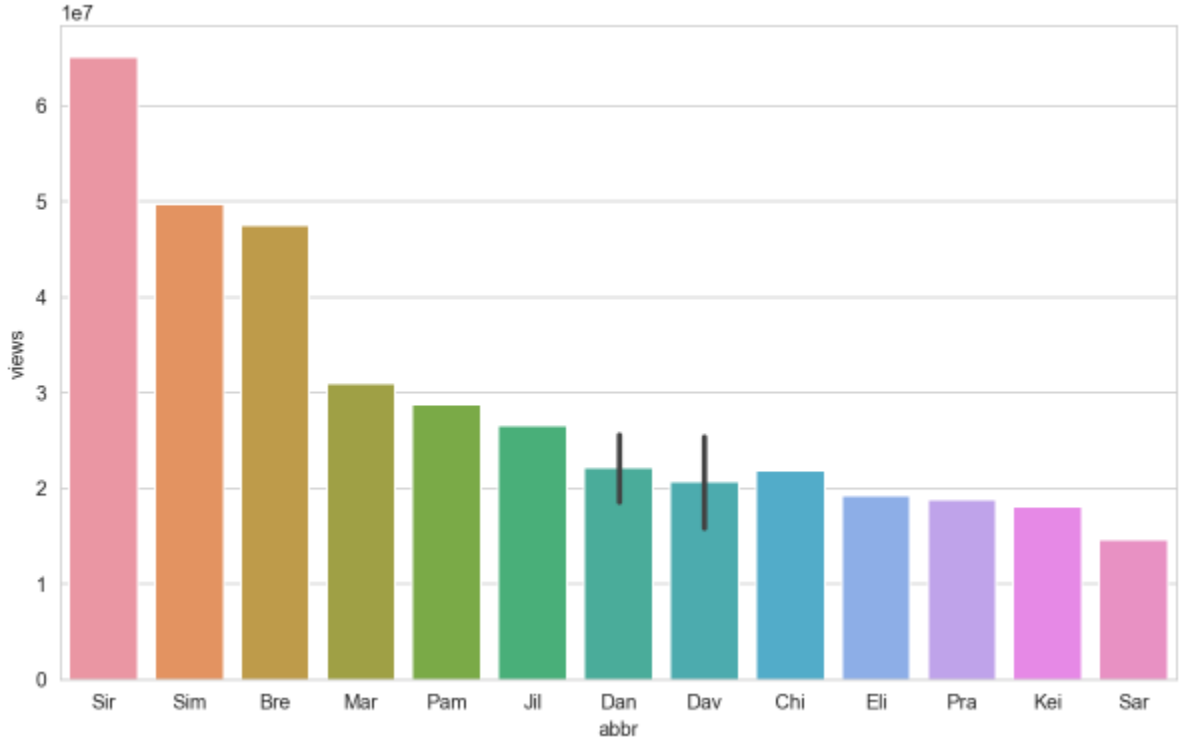
Dataset

	talk_id	title	speaker_1	all_speakers	occupations	about_speakers	views	recorded_date	published_date	event	native_lang	available_lang	comments	duration	topics	related_talks	url	description	transcript
0	1	Averting the climate crisis	Al Gore	{0: 'Al Gore'}	{0: ['climate advocate']}	{0: 'Nobel Laureate Al Gore focused the world'...	3523392	2006-02-25	2006-06-27	TED2006	en	['ar', 'bg', 'cs', 'de', 'el', 'en', 'es', 'fa...	272	977	['alternative energy', 'cars', 'climate change...	{243: 'New thinking on the climate crisis', 54...	https://www.ted.com/talks/al_gore_averting_the...	With the same humor and humanity he exuded in ...	Thank you so much, Chris. And it's truly a gre...
1	92	The best stats you've ever seen	Hans Rosling	{0: 'Hans Rosling'}	{0: ['global health expert; data visionary']}	{0: 'In Hans Rosling's hands, data sings. Glob...	14501685	2006-02-22	2006-06-27	TED2006	en	['ar', 'az', 'bg', 'bn', 'bs', 'cs', 'da', 'de...	628	1190	['Africa', 'Asia', 'Google', 'demo', 'economic...	{2056: "Own your body's data", 2296: 'A visual...	https://www.ted.com/talks/hans_rosling_the_bes...	You've never seen data presented like this. Wi...	About 10 years ago, I took on the task to teac...

Approach & Methodology



EDA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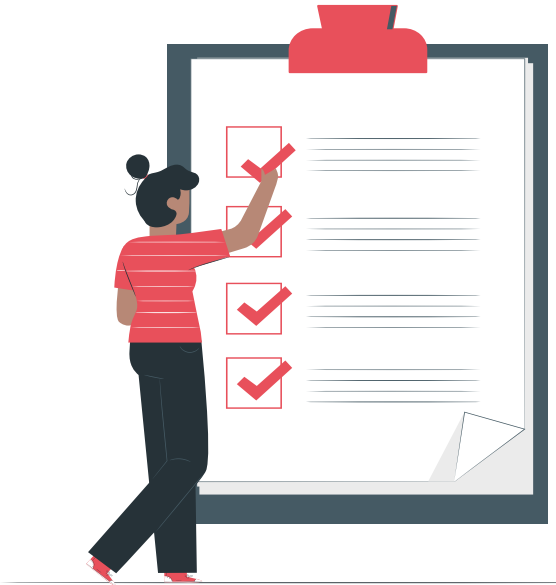
Data Preparation

- ✓ Handling missing values
- ✓ Handling duplicate values
- ✓ NLTK

Topic Modelling

TFIDF used for Vectorization:

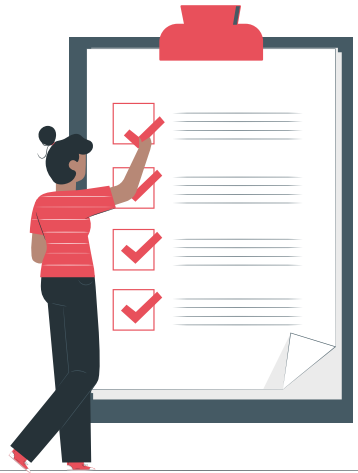
- ✓ NMF
- ✓ LSA
- ✓ LDA



Topic Modelling

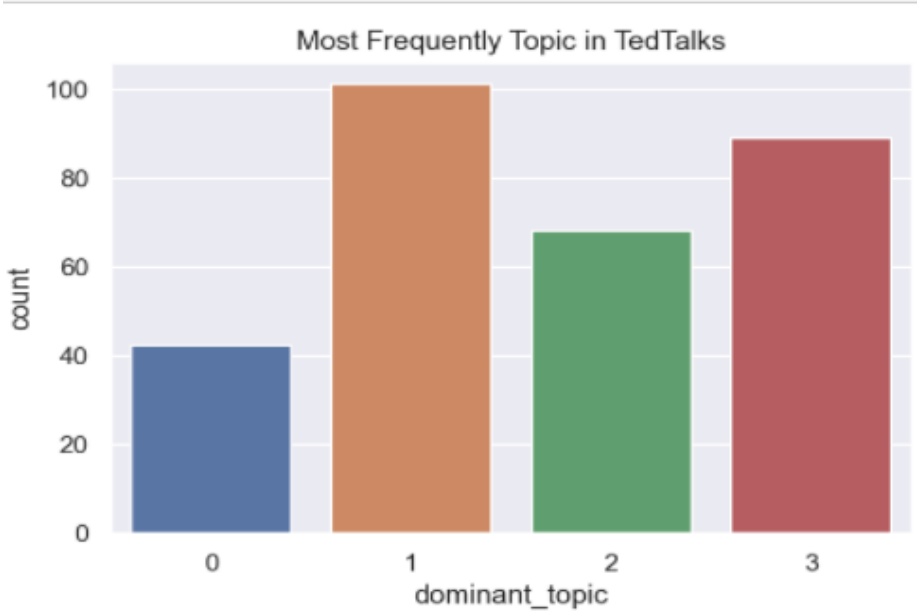
```
{'Geology': 'water, planet, earth, ocean, citi',
 'stories': 'said, music, love, stori, feel',
 'Economy': 'countri, africa, percent, dollar, govern',
 'Computer Scince': 'brain, comput, design, technolog, kind'}
```

	Geology	stories	Economy	Computer Scince	dominant_topic
Doc0	0.032	0.000	0.028	0.175	3
Doc1	0.000	0.238	0.000	0.000	1
Doc2	0.069	0.029	0.000	0.174	3
Doc3	0.004	0.000	0.116	0.056	2
Doc4	0.137	0.041	0.028	0.006	0
...	...	...	...	...	...
Doc693	0.000	0.093	0.000	0.151	3
Doc694	0.072	0.186	0.000	0.051	1
Doc695	0.005	0.113	0.000	0.000	1
Doc696	0.000	0.199	0.060	0.039	1
Doc697	0.077	0.045	0.074	0.000	0



Results

Geology	water, planet, earth, ocean, citi
stories	said, music, love, stori, feel
Economy	countri, africa, percent, dollar, govern
Computer Scince	brain, comput, design, technolog, kind



Thank you for listening

Banan Alhethlool

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