

A large audience is seated in a dark auditorium, facing a stage. The stage is lit with blue and purple light. A speaker is visible on the right side of the stage. The TED logo is prominently displayed in red on the left side of the stage. The text "Ideas worth spreading" is displayed in white on the right side of the stage.

TED Ideas worth spreading

DSI-15 Singapore Capstone Project
Sharmaine Cheung

TED

Questions to solve

What are talk features that can lead to more views?
Can we predict viewership of future talks?

Data Collection

- Download list of talks and urls

TED Ideas worth spreading

WATCHDISCOVERATTENDPARTICIPATEABOUTSIGN IN

Q

3500+ talks to stir your curiosity

Find just the right one

Search talks...TopicsLanguagesDurationMore

Active filters: EnglishClearSort by: Newest

A blue hand holding a glowing sphere with a brain-like pattern inside.

Gareth Gaskell
How do our brains process speech?
Posted Jul 2020
4:21

Ethan Hawke sitting in a room with bookshelves.

Ethan Hawke
Give yourself permission to be creative
Posted Jul 2020
9:16

A red cup on a blue and white checkered tablecloth with a red apple and a green plant.

Matt Walker
How caffeine and alcohol affect your sleep
Posted Jul 2020
4:54

A yellow field with a white sheep and a black sheep.

Iseult Gillespie
The myth of Jason, Medea, and the Golden Fleece
Posted Jul 2020
4:29

Kwame Owusu-Kesse smiling.

Kwame Owusu-Kesse
A comprehensive, neighborhood-based response to COVID-19
Posted Jul 2020
6:36

A cartoon illustration of a Celtic warrior on a horse.

Philip Freeman
The rise and fall of the Celtic warriors
Posted Jul 2020
4:51

A man in a suit speaking.

New! Activity Feed

Data Collection

- Download list of talks and urls
- Download talk metadata and transcript data from individual talk's urls



In this tour of the microscopic world, explorer and artist Ariel Waldman introduces the charismatic creatures lurking beneath Antarctica's massive ice sheet, the largest on earth. From "cuddly" water bears to geometric algae made of glass, Waldman shows how this seemingly barren landmass is actually a polar oasis of life -- if we just know where to look.

This talk was presented at an official TED conference, and was featured by our editors on the home page.

ABOUT THE SPEAKER



Ariel Waldman · Antarctic explorer, NASA advisor
An artist who's pivoted to science, Ariel Waldman creates multidisciplinary, creative collaborations that explore the world under our feet (and beyond our atmosphere).

525,887 views

TED2020 | May 2020

Related tags

[Science](#)
[Animals](#)
[Exploration](#)

What inspires you?

Tell us your interests and we'll pick TED Talks just for you.

Get Started

A new perspective

Ideas for self-improvement

Insights about issues that

Nature

Smart entertainment

Inspiration or motivation

Design

Collaboration

Personal growth

Science

Innovation

A sense of

ter

Child development

Activism

Communication

Technology

Watch next

Drawings that show the beauty and fragility of Earth
1.5M views



The Arctic vs. the Antarctic
2.9M views



What's hidden under the Greenland ice sheet?
4.6M views



Animal tales from icy wonderlands
2.5M views



How we look kilometers below the Antarctic ice sheet
1M views



Data Collection

- Download list of talks and urls
- Download talk metadata and transcript data from individual talk's urls
- **Approx. 4000 talks as at 26 July 2020**



Ariel Waldman | TED2020

The invisible life hidden beneath Antarctica's ice

Details | **Transcript** | **Reading List** | **Comments (4)**

About the talk | 9 languages | Further learning | Join the conversation

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A new perspective | Ideas for self-improvement | Insights about issues the world faces

Inspiration or motivation | Design

Personal growth | Science | Innovation | A sense of purpose

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1M views

Data Cleaning

- Missing values and correct data types
- Further extraction performed on columns

take_action
[[{'status': 'approved', 'blurb': '**Support** underserved black and brown families in Harlem during the COVID-19 crisis.', 'link_url': 'https://hcz.org/ted/', 'visible_url': 'hcz.org/ted', 'start_at': None, 'end_at': None, 'published': True, 'eyebrow': '', 'type': 'take_action', 'verb': 'participate'}, {'status': 'approved', 'blurb': '**Learn** how you can support our children in Harlem on their career path.', 'link_url': 'https://hcz.org/how-to-help/', 'visible_url': 'hcz.org/how-to-help', 'start_at': None, 'end_at': None, 'published': True, 'eyebrow': '', 'type': 'take_action', 'verb': 'learn'}]]

- Dropped talks that are non-English native language
- Dropped talk published in July 2020

Data Fields

Id
Title
Description
Number of views
Number of comments
Is_featured
Tags
More_resources

More_resources
Take_action
Recommendations
Has_citations
Languages
Published date
Recorded date
Transcript
Speaker-related fields
...

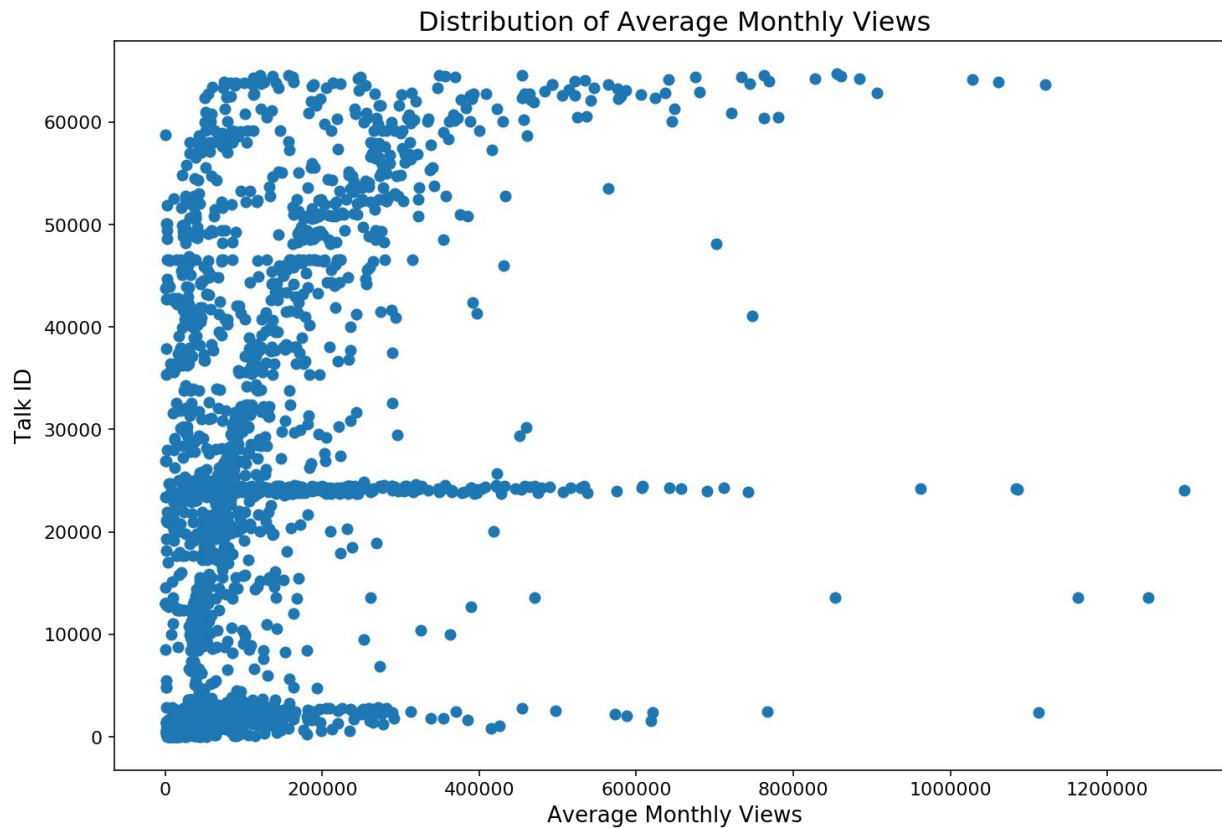
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Featured Columns

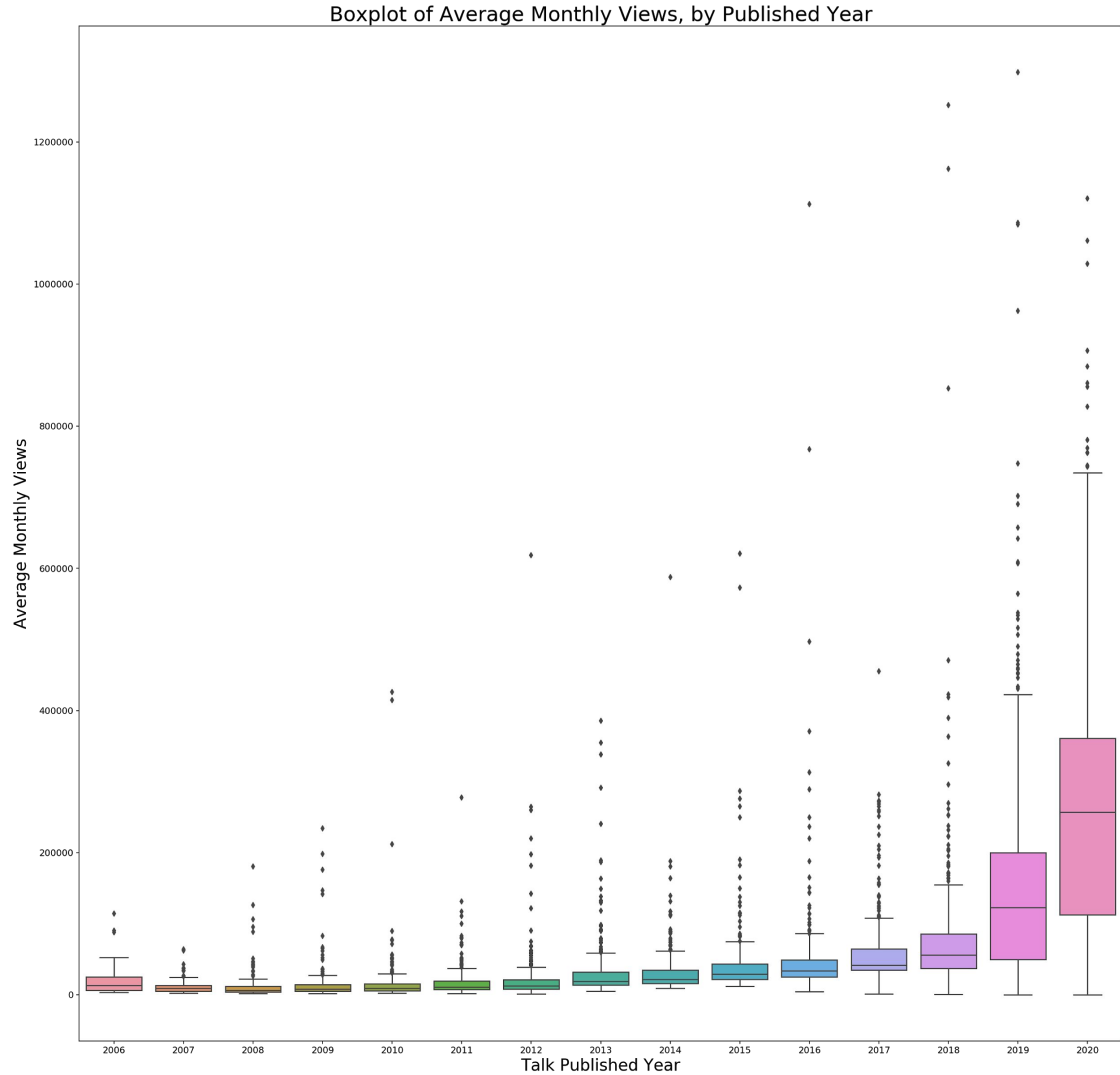
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Title_len
Description_len
Transcript_len
Tags get dummies
Actions get dummies

Average Monthly Views

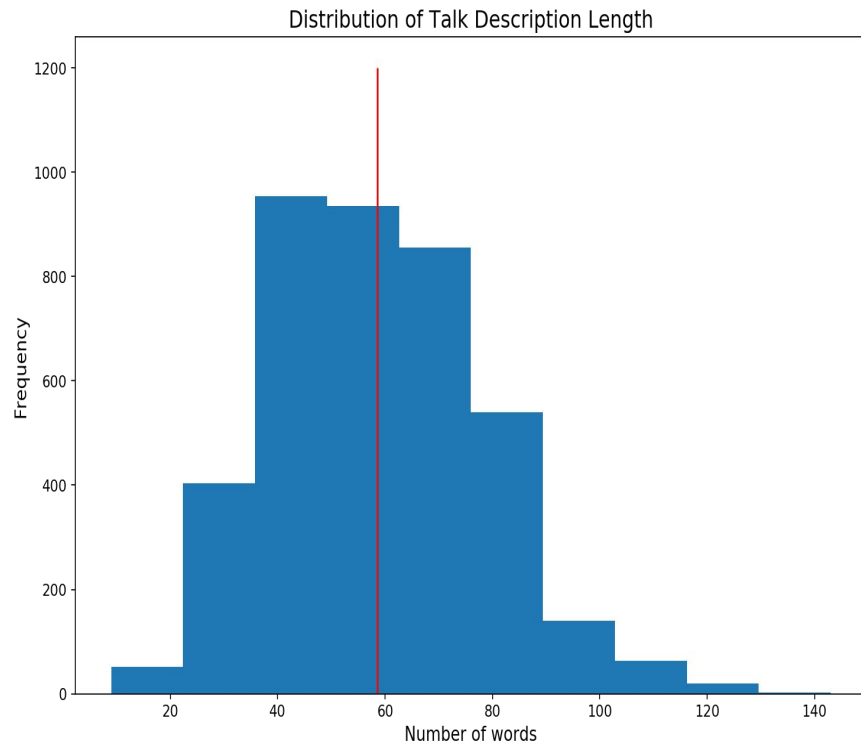
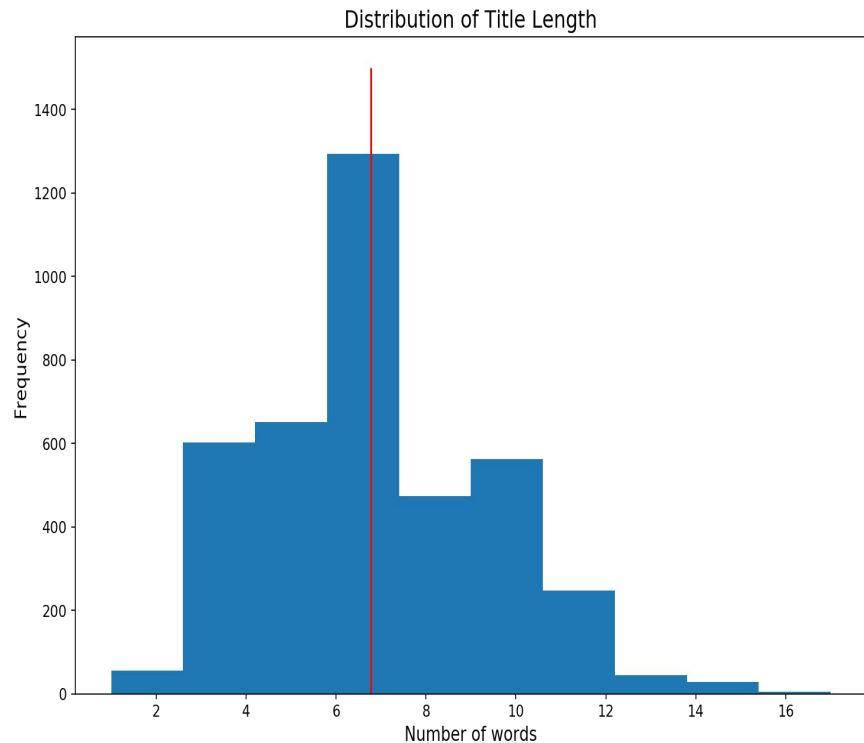
Distribution of Average Monthly Views



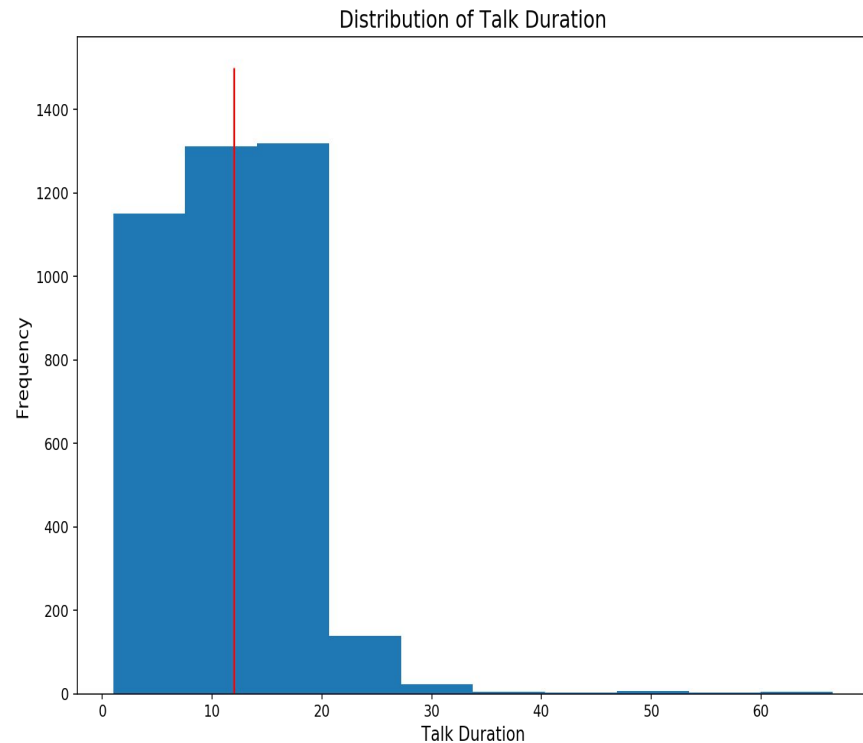
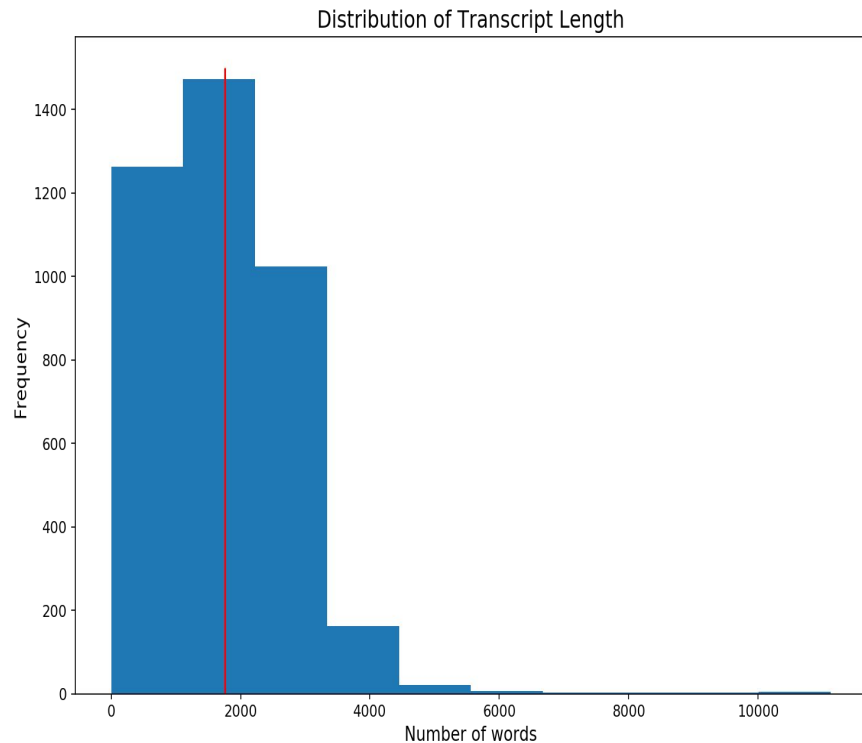
Distribution of Average Monthly Views, by published year



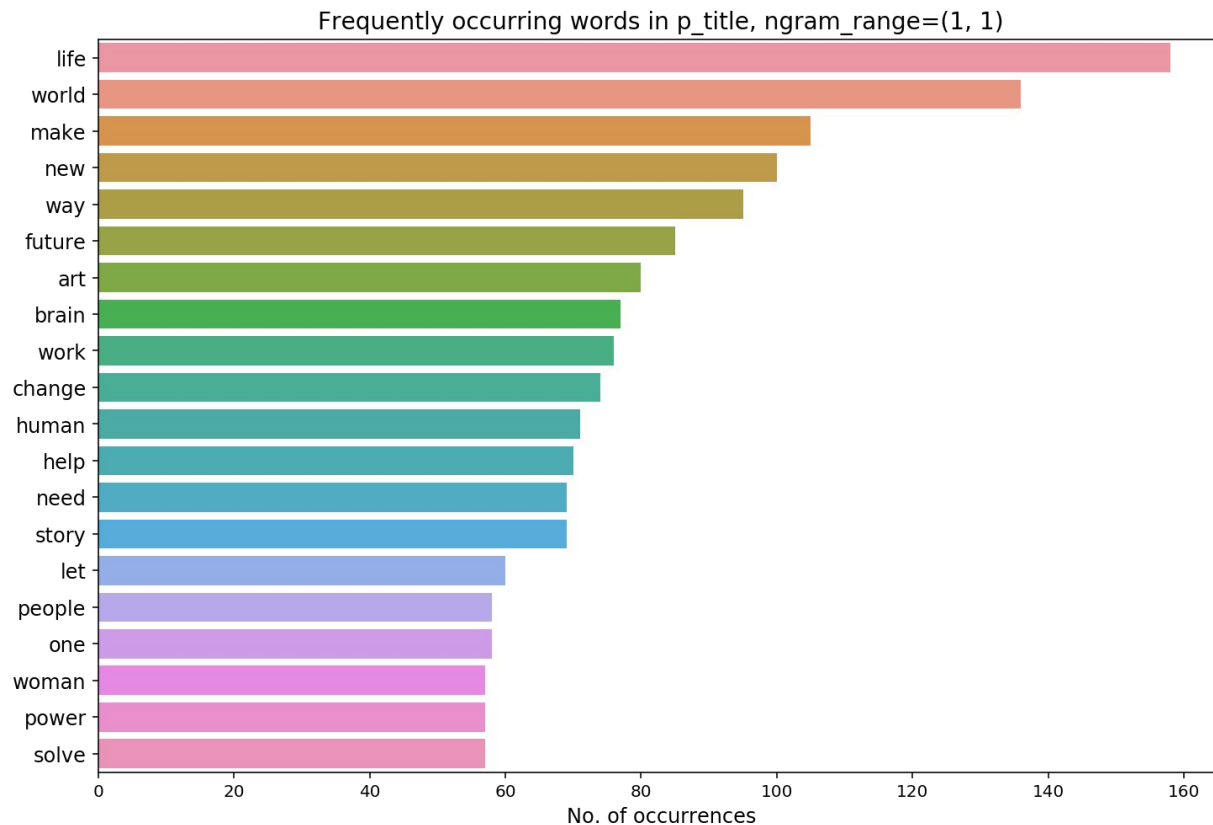
Distribution of Text Length



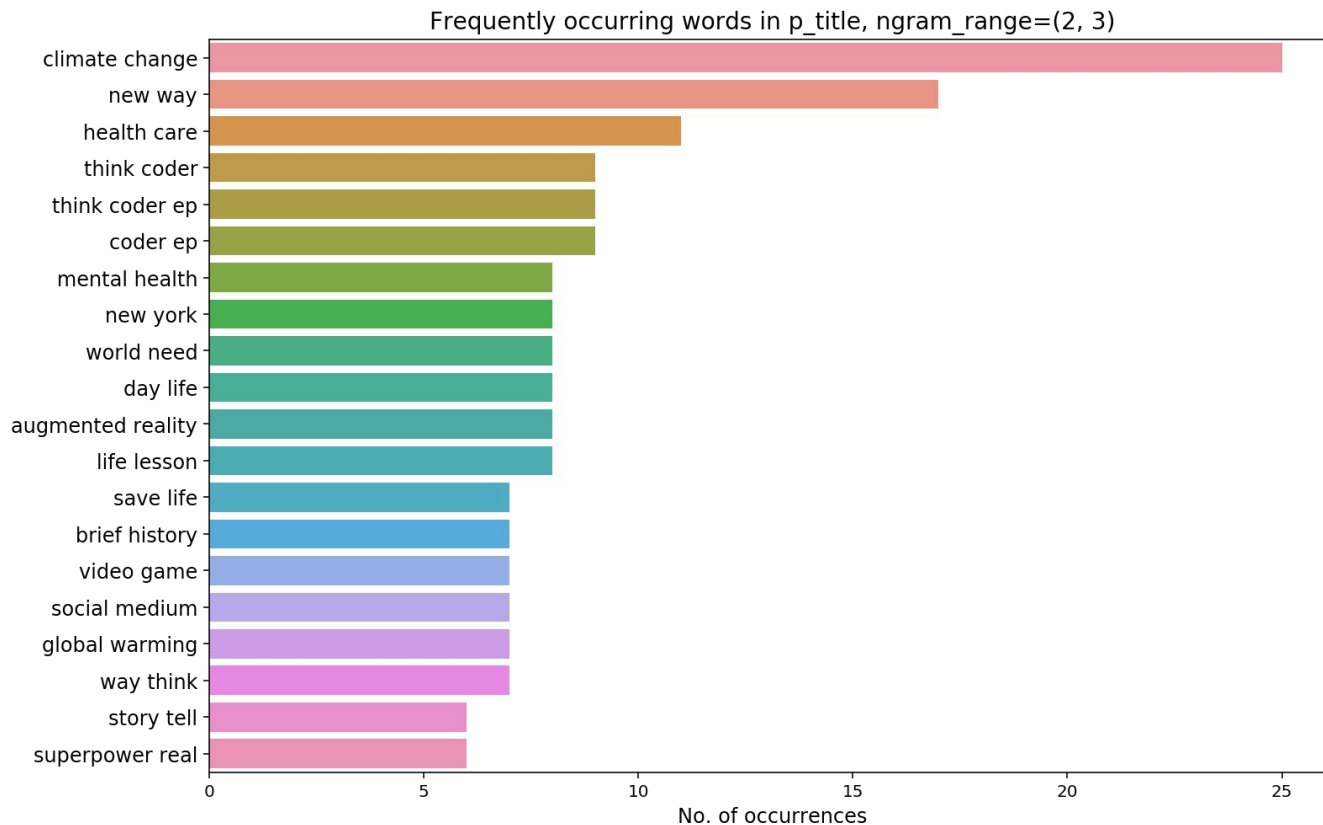
Distribution of Text Length / Talk Duration



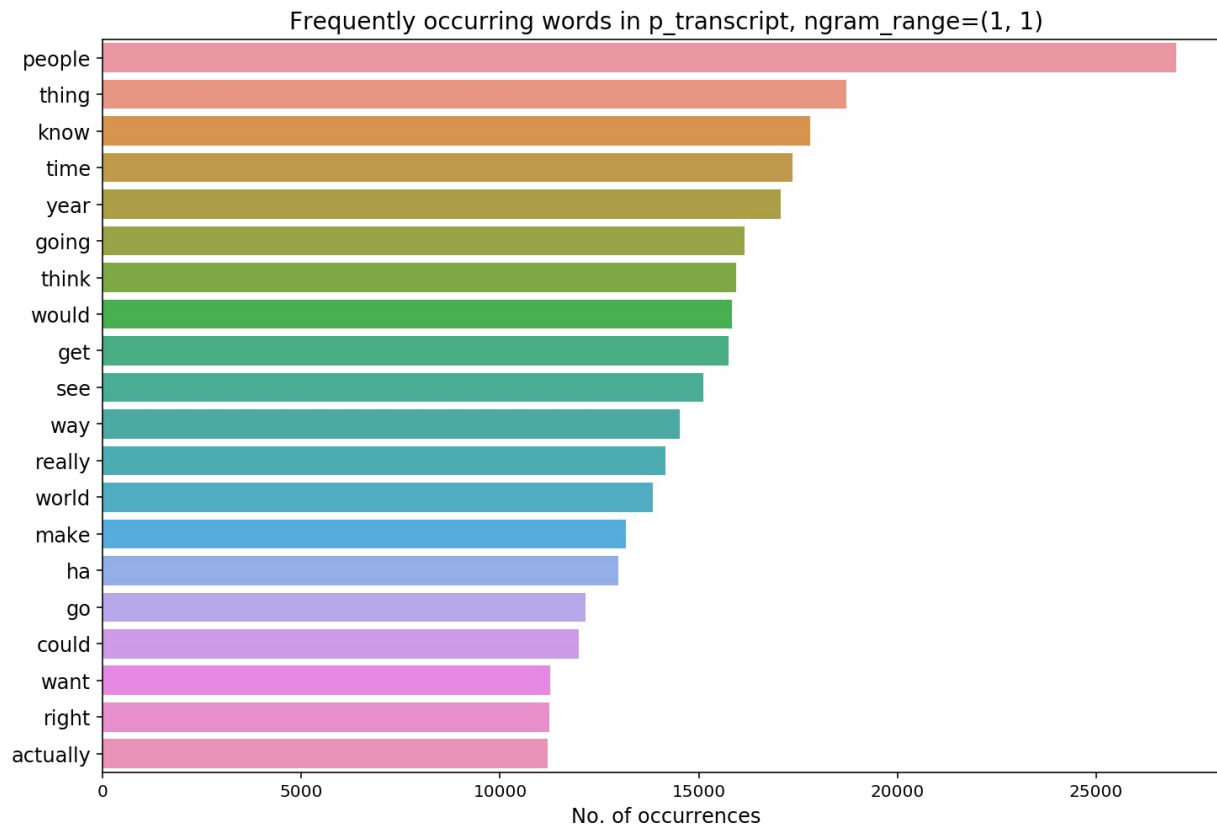
Words in Title



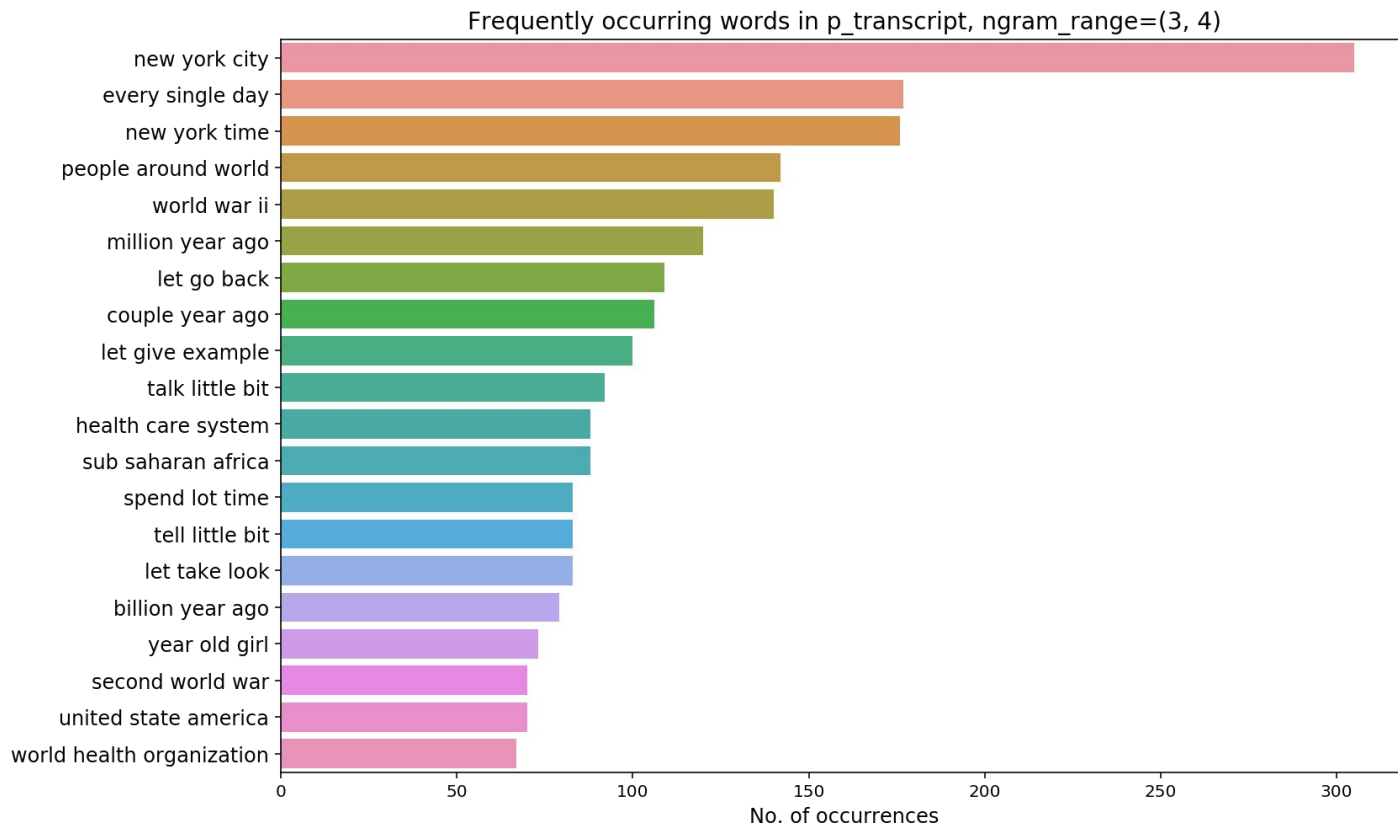
Words in Title



Words in Transcript



Words in Transcript



Modelling

	best_score	train_score_r2	train_score_rmse
mlr_cvec	-1.5958	0.6885	67620.3163
mlr_tvec	-1.3865	0.7324	62672.1254
ridge_cvec	0.2501	0.4100	93064.9964
ridge_tvec	0.2561	0.3919	94475.5027
lasso_cvec	-0.0692	0.5574	80602.0086
lasso_tvec	-0.2029	0.5968	76931.0618
rf_cvec	0.4220	0.9152	35272.1267
rf_tvec	0.4122	0.9187	34535.5658

Baseline prediction:

76,736.59 average monthly views

Baseline score (RMSE):

122,723.0166 average monthly views

Baseline score (R2): 0

Modelling

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mlr_tvec	-1.3865	0.7324	62672.1254
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rf_tvec	0.4122	0.9187	34535.5658

Baseline prediction:

76,736.59 average monthly views

Baseline score (RMSE):

122,723.0166 average monthly views

Baseline score (R2): 0

Test score (R2): 0.3324

Test score (RMSE):

103,919.4555

Feature Inference - Topics/Tags

	coef	features	coef_abs
1065	21975.389710	published_year	21975.389710
1140	9971.935548	tag_animation	9971.935548
1206	9194.769420	tag_coronavirus	9194.769420
1056	8934.289480	has_citations	8934.289480
1448	7455.436648	tag_self	7455.436648
1121	6192.871321	tag_TED-Ed	6192.871321
1147	5947.504241	tag_arts	5947.504241
1051	-5736.231928	is_featured	5736.231928
1064	-4943.406715	published_month	4943.406715
1063	4654.462834	published_day	4654.462834
1050	4647.275203	num_comments	4647.275203
1332	4490.933829	tag_life	4490.933829
1351	4240.247436	tag_memory	4240.247436
1303	4055.242703	tag_human rights	4055.242703
1524	-4054.921118	action_None	4054.921118
1338	3947.255239	tag_manufacturing	3947.255239

1312	3872.901948	tag_indigenous peoples	3872.901948
1420	3828.967739	tag_presentation	3828.967739
1316	-3682.066494	tag_innovation	3682.066494
1506	3561.434732	tag_virus	3561.434732
1399	3425.366145	tag_personal growth	3425.366145
1166	-3411.297453	tag_biosphere	3411.297453
1184	-3386.161705	tag_children	3386.161705
1530	3341.992813	action_learn	3341.992813
1268	3329.176384	tag_food	3329.176384
1238	3315.930381	tag_education	3315.930381
1532	3302.929116	action_participate	3302.929116
1411	-3294.561491	tag_poetry	3294.561491
1368	3182.222190	tag_motivation	3182.222190
1456	3180.685957	tag_sleep	3180.685957

Human rights

Innovation

Education

Sleep

Personal
growth

Feature Inference - Talk Attributes

	coef	features	coef_abs
1065	21975.389710	published_year	21975.389710
1140	9971.935548	tag_animation	9971.935548
1206	9194.769420	tag_coronavirus	9194.769420
1056	8934.289480	has_citations	8934.289480
1448	7455.436648	tag_self	7455.436648
1121	6192.871321	tag_TED-Ed	6192.871321
1147	5947.504241	tag_arts	5947.504241
1051	-5736.231928	is_featured	5736.231928
1064	-4943.406715	published_month	4943.406715
1063	4654.462834	published_day	4654.462834
1050	4647.275203	num_comments	4647.275203
1332	4490.933829	tag_life	4490.933829
1351	4240.247436	tag_memory	4240.247436
1303	4055.242703	tag_human rights	4055.242703
1524	-4054.921118	action_None	4054.921118
1338	3947.255239	tag_manufacturing	3947.255239

1312	3872.901948	tag_indigenous peoples	3872.901948
1420	3828.967739	tag_presentation	3828.967739
1316	-3682.066494	tag_innovation	3682.066494
1506	3561.434732	tag_virus	3561.434732
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1166	-3411.297453	tag_biosphere	3411.297453
1184	-3386.161705	tag_children	3386.161705
1530	3341.992813	action_learn	3341.992813
1268	3329.176384	tag_food	3329.176384
1238	3315.930381	tag_education	3315.930381
1532	3302.929116	action_participate	3302.929116
1411	-3294.561491	tag_poetry	3294.561491
1368	3182.222190	tag_motivation	3182.222190
1456	3180.685957	tag_sleep	3180.685957

Feature Inference - Actions

	coef	features	coef_abs
1065	21975.389710	published_year	21975.389710
1140	9971.935548	tag_animation	9971.935548
1206	9194.769420	tag_coronavirus	9194.769420
1056	8934.289480	has_citations	8934.289480
1448	7455.436648	tag_self	7455.436648
1121	6192.871321	tag_TED-Ed	6192.871321
1147	5947.504241	tag_arts	5947.504241
1051	-5736.231928	is_featured	5736.231928
1064	-4943.406715	published_month	4943.406715
1063	4654.462834	published_day	4654.462834
1050	4647.275203	num_comments	4647.275203
1332	4490.933829	tag_life	4490.933829
1351	4240.247436	tag_memory	4240.247436
1303	4055.242703	tag_human rights	4055.242703
1524	-4054.921118	action_None	4054.921118
1338	3947.255239	tag_manufacturing	3947.255239

1312	3872.901948	tag_indigenous peoples	3872.901948
1420	3828.967739	tag_presentation	3828.967739
1316	-3682.066494	tag_innovation	3682.066494
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1411	-3294.561491	tag_poetry	3294.561491
1368	3182.222190	tag_motivation	3182.222190
1456	3180.685957	tag_sleep	3180.685957

Next steps

A large red TEDx logo is the central focus, with a red wooden stool in the foreground. The background is a dark stage with blue and purple lighting. A red exit sign is visible in the distance.

- Speaker-related description (Description, Who they are, Why listen, What others say)
- Video types (TEDx, TED Institute, TED Salon)
- Speaker gender and race (with application of image processing)

TED



Thank you!

