FinSentim

Measuring financial world's thoughts

FinSentim.com | info@finsentim.com

NLP

NLP

The Walt Disney Company today reported earnings for its first fiscal quarter ended January 2, 2021. Diluted earnings per share (EPS) from continuing operations for the quarter decreased 98% to $0.02 from $1.17 in the prior-year quarter.

"type" : "positive"
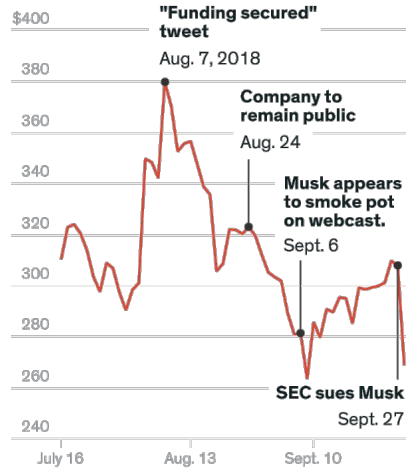
"score" : 0.15520547175

"ratio" : 1

▼ "keywords" : [3 items
    ▶ 0 : {...} 2 items
    ▶ 1 : {...} 2 items
    ▶ 2 : {...} 2 items
]

NLP

The Walt Disney Company today reported earnings for its first fiscal quarter ended January 2, 2021. Diluted earnings per share (EPS) from continuing operations for the quarter decreased 98% to $0.02 from $1.17 in the prior-year quarter.

```
"type" : "positive"
"score" : 0.15520547175
"ratio" : 1
  "keywords"
      0 : {...}
      1 : {...}
      2 : {...}
]
```

FinSentim

Financial Sentiment Analysis

Try out Live or

Request a Demo

Overall Sentiment Score:

-62

The Walt Disney Company today reported earnings for its first fiscal quarter ended January 2, 2021 Diluted earnings per share (EPS) from continuing operations for the quarter decreased 98% to $0.02 from $1.17 in the prior-year quarter.

Run

Sentence	Prediction	Score
The Walt Disney Company today reported earnings for its first fiscal quarter ended January 2, 2021 Diluted earnings per share (EPS) from continuing operations for the quarter decreased 98% to $0.02 from $1.17 in the prior-year quarter.	negative	-0.621642
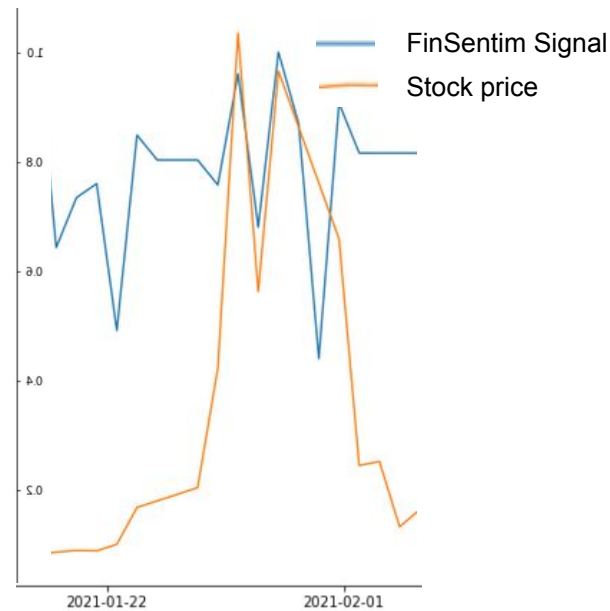
Gamestop stock price and sentiment

Problem

Social Media and news articles have shown to accurately represent and influence the market, but this information is hard to exploit

"Sentiment analysis of online opinion posts can facilitate both investors' investment decision making and stock companies' risk perception"

- David L. Olson

Manual Approach

- Impossible to read all news and social media posts

- Limited by reader's speaking languages

- Skewed by personal bias

- Time-consuming and expensive

Missed Opportunities

- Late in reacting to market events

- Missing clues and red flags

- Caught off guard by events in emerging markets

FinSentim

Davit Soselia

Machine Learning MSc student
5 years ML research and industry
experience

Shota Amashukeli

Computer Science MSc student
4 years ML research and industry
experience

- Founded to address the technology gap in the industry
- Reinventing financial sentiment analysis
- Over 2 years of research and development

Why FinSentim
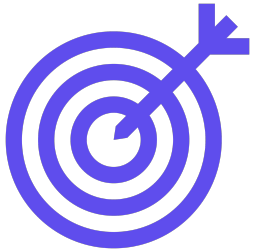
High Accuracy

Broad Source Coverage

Multilingual support

High-Accuracy
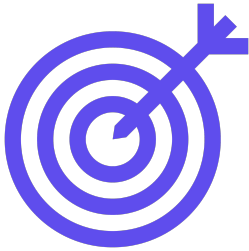
- Latest BERT-based Deep Learning architecture
- Customized 100K labeled sentences dataset
- Context-aware analysis

API Accuracy Comparison

API	Accuracy
FinSentim	84%
Twinword	75%
Text-Processing (Japerk)	60%
Gavagai	27%
Aylien	6%
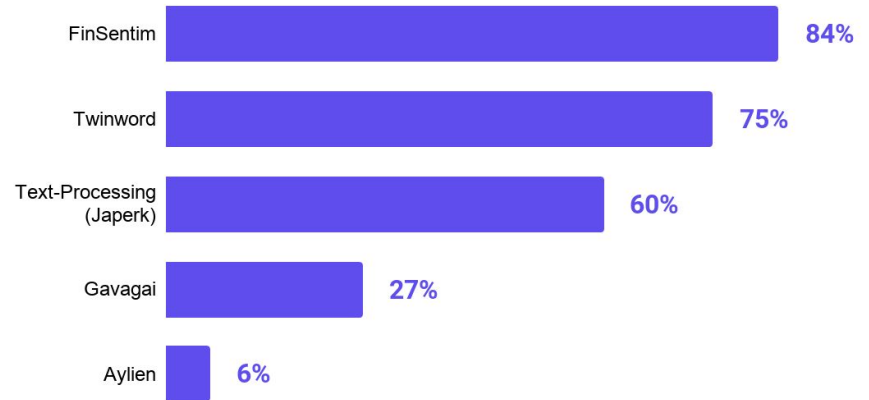
Accuracy compared to human-labeled third party FiQA 2018 financial sentiment dataset in English

12

High-Accuracy

FOR IMMEDIATE RELEASE
February 11, 2021

THE WALT DISNEY COMPANY REPORTS
FIRST QUARTER EARNINGS FOR FISCAL 2021

BURBANK, Calif. – The Walt Disney Company today reported earnings for its first fiscal quarter ended January 2, 2021. Diluted earnings per share (EPS) from continuing operations for the quarter decreased 98% to $0.02 from $1.17 in the prior-year quarter. Excluding certain items,[1] diluted EPS for the quarter decreased 79% to $0.32 from $1.53 in the prior-year quarter. Results in the quarter ended January 2, 2021 were adversely impacted by the novel coronavirus (COVID-19). The most significant impact was at the Disney Parks, Experiences and Products segment where since late in the second quarter of fiscal 2020, our parks and resorts have been closed or operating at significantly reduced capacity and our cruise ship sailings have been suspended.

"We believe the strategic actions we're taking to transform our Company will fuel our growth and enhance shareholder value, as demonstrated by the incredible strides we've made in our DTC business, reaching more than 146 million total paid subscriptions across our streaming services at the end of the quarter," said Bob Chapek, Chief Executive Officer, The Walt Disney Company. "We're confident that, with our robust pipeline of exceptional, high-quality content and the upcoming launch of our new Star-branded international general entertainment offering, we are well-positioned to achieve even greater success going forward."

The following table summarizes the first quarter results for fiscal 2021 and 2020 (in millions, except per share amounts):

		Quarter Ended			
		January 2, 2021		December 28, 2019	Change
Revenues	$	16,249	$	20,877	(22) %
Income from continuing operations before income taxes	$	46	$	2,626	(98) %
Total segment operating income[1]	$	1,332	$	3,996	(67) %
Net income from continuing operations[2]	$	29	$	2,128	(99) %
Diluted EPS from continuing operations[2]	$	0.02	$	1.17	(98) %
Diluted EPS excluding certain items[1]	$	0.32	$	1.53	(79) %
Cash provided by continuing operations	$	75	$	1,630	(95) %
Free cash flow[1]	$	(685)	$	292	nm

[1] Diluted EPS excluding certain items, total segment operating income and free cash flow are non-GAAP financial measures. The comparable GAAP measures are diluted EPS from continuing operations, income from continuing operations before income taxes, and cash provided by continuing operations, respectively. See the discussion on page 2 and on pages 9 through 11.
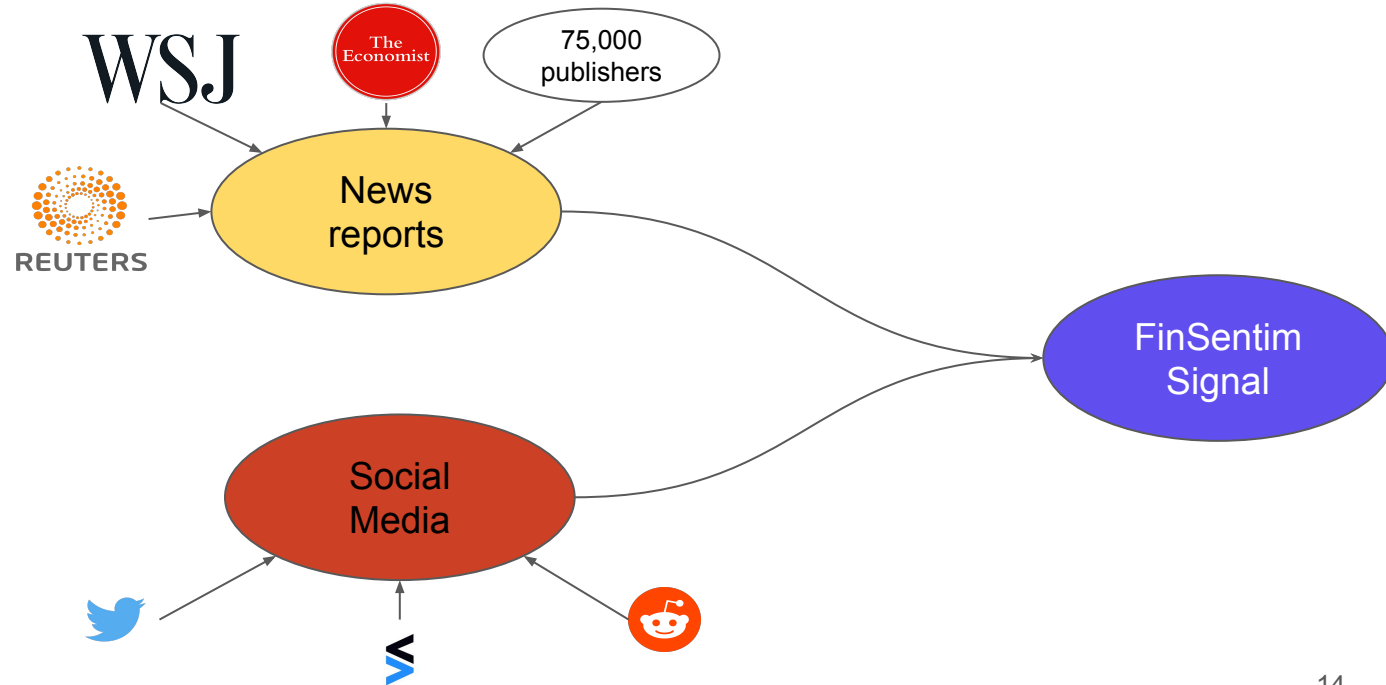
[2] Reflects amounts attributable to shareholders of The Walt Disney Company, i.e. after deduction of income attributable to noncontrolling interests.

-10

Sentence	Prediction	Score
BURBANK, Calif. – The Walt Disney Company today reported earnings for its first fiscal quarter\nended January 2, 2021.	positive	0.803465
Diluted earnings per share (EPS) from continuing operations for the quarter\ndecreased 98% to $0.02 from $1.17 in the prior-year quarter.	negative	-0.797164
Excluding certain items,(1) diluted EPS for\nthe quarter decreased 79% to $0.32 from $1.53 in the prior-year quarter.	negative	-0.730346
Results in the quarter ended\nJanuary 2, 2021 were adversely impacted by the novel coronavirus (COVID-19).	negative	-0.801952
The most significant\nimpact was at the Disney Parks, Experiences and Products segment where since late in the second quarter\nof fiscal 2020, our parks and resorts have been closed or operating at significantly reduced capacity and\nour cruise ship sailings have been suspended.	negative	-0.815075
"We believe the strategic actions we're taking to transform our Company will fuel our growth and\nenhance shareholder value, as demonstrated by the incredible strides we've made in our DTC business,\nreaching more than 146 million total paid subscriptions across our streaming services at the end of the\nquarter," said Bob Chapek, Chief Executive Officer, The Walt Disney Company.	positive	0.824426
"We're confident that,\nwith our robust pipeline of exceptional, high-quality content and the upcoming launch of our new Star-branded international general entertainment offering, we are well-positioned to achieve even greater\nsuccess going forward."	positive	0.785971

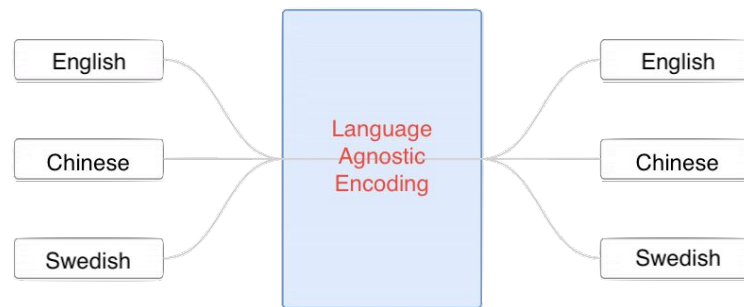Sentence-by-sentence analysis

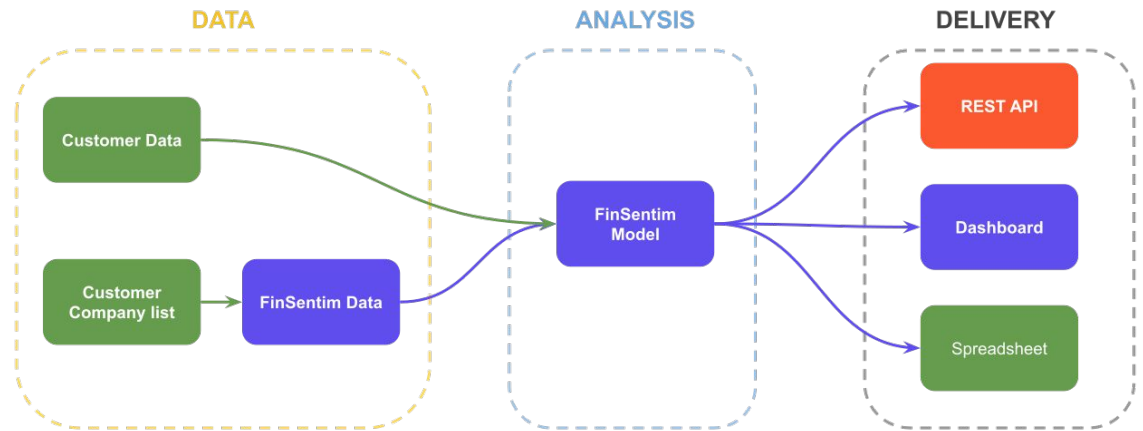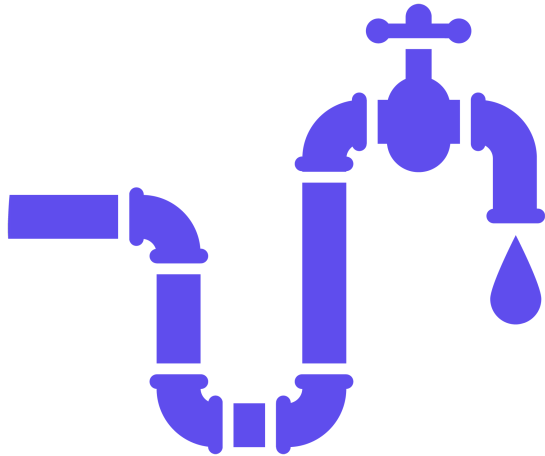# Broad Source Coverage

Multi-Lingual Support

- Native Multi-Lingual support
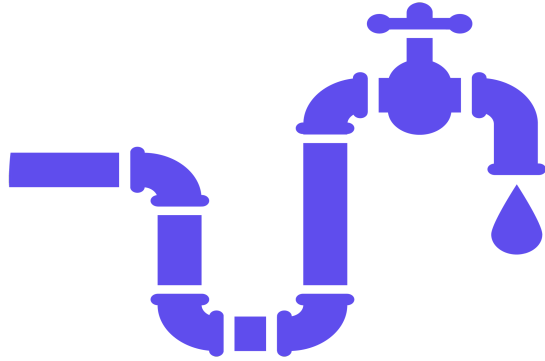- Trained on 46+ Languages
- Reuters China benchmark accuracy - 80%

English
Chinese
Swedish

Language Agnostic Encoding

English
Chinese
Swedish

Utilizing language agnostic encodings for classification, leading to native multi-lingual support

Integration

DATA

Customer Data

Customer Company list

FinSentim Data

ANALYSIS

FinSentim Model

DELIVERY

REST API

Dashboard

Spreadsheet

Integration

- REST API
- Web Dashboard
- Excel Integration

FinSentim Dashboard, sentiment over time for tracked entities

Business Model
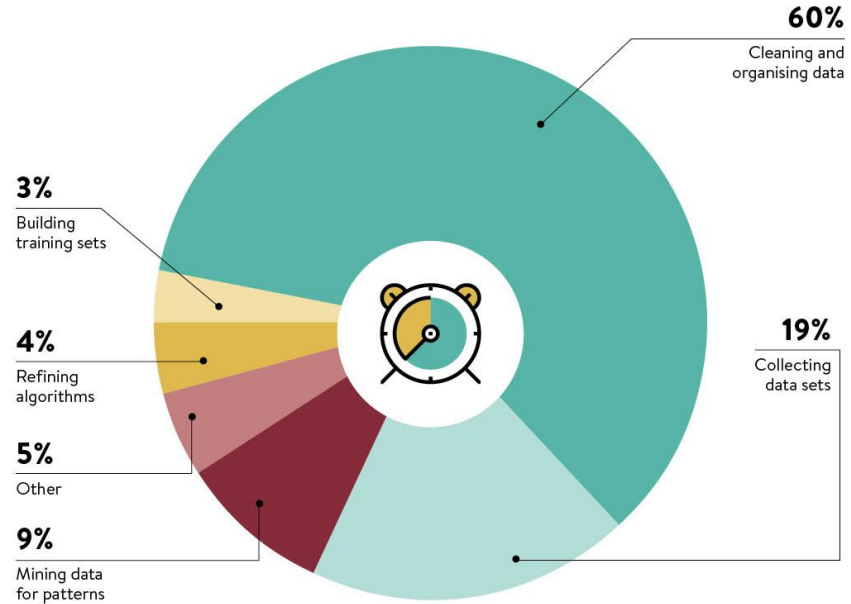
Target market	Revenue model

Small to medium sized financial companies	● B2B - Subscription based
	    ■ API
	    ■ On-site

NLP

WHAT DATA SCIENTISTS SPEND THE MOST TIME DOING

60%
Cleaning and organising data

19%
Collecting data sets

3%
Building training sets

4%
Refining algorithms

5%
Other

9%
Mining data for patterns

Source: CrowdFlower 2016

19

Tokenization

Harry walked down four blocks to pick up ice cream.

Tokenization

Harry	walked	down	four	blocks	to	pick	up	ice	cream	.
PROPN	VERB	ADV	NUM	NOUN	PART	VERB	ADP	NOUN	NOUN	PUNCT

Lemmatization & Stemming

Lucy said that the car's engine was running all night

Lemmatization

Lucy say that the car engine be run all night

Parts of Speech

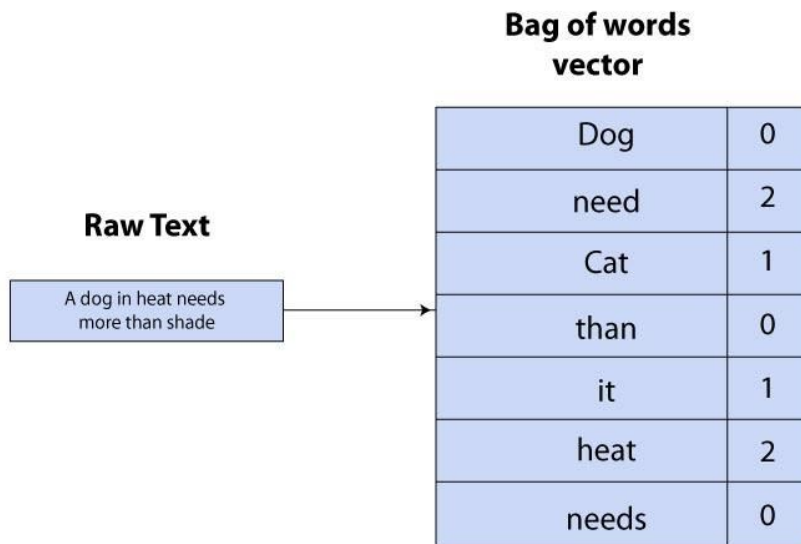Harry walked down four blocks to pick up ice cream.

Parts of Speech

Harry PROPN	walked VERB	down ADV	four NUM	blocks NOUN	to PART	pick VERB	up ADP	ice NOUN	cream NOUN	. PUNCT

Bag of Words

Bag of words vector

Raw Text

A dog in heat needs
more than shade

Dog	0
need	2
Cat	1
than	0
it	1
heat	2
needs	0

N-Grams

This is Big Data AI Book

Uni-Gram	This	Is	Big	Data	AI	Book

Bi-Gram	This is	Is Big	Big Data	Data AI	AI Book

Tri-Gram	This is Big	Is Big Data	Big Data AI	Data AI Book

Word Embeddings
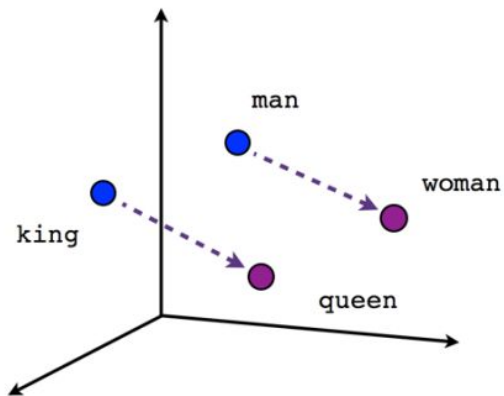
Male-Female
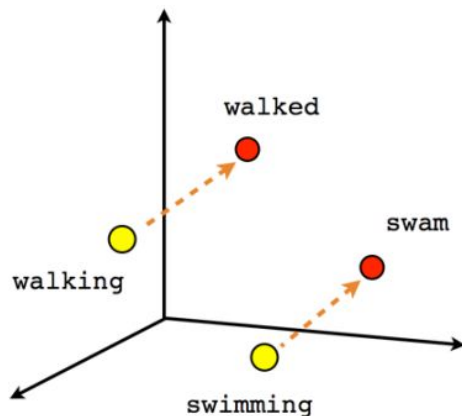
Verb tense
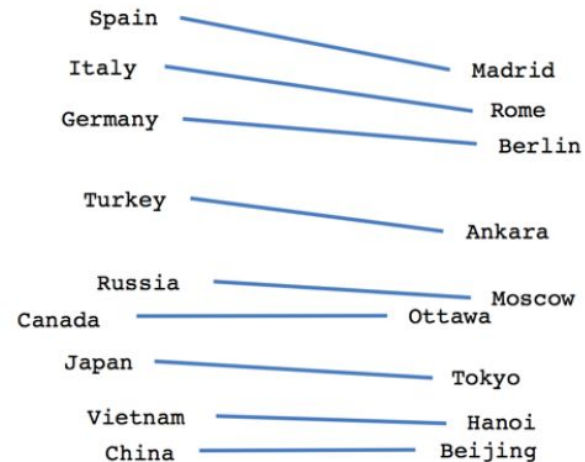
Country-Capital

Transformers

By Xiaozhi Wang & Zhengyan Zhang @THUNLP
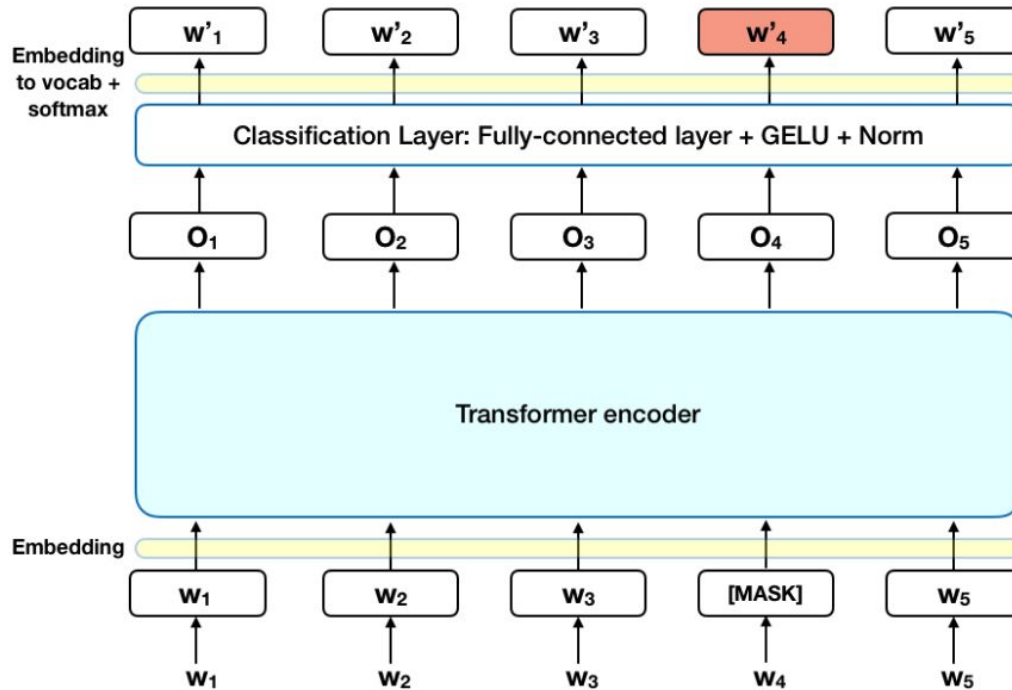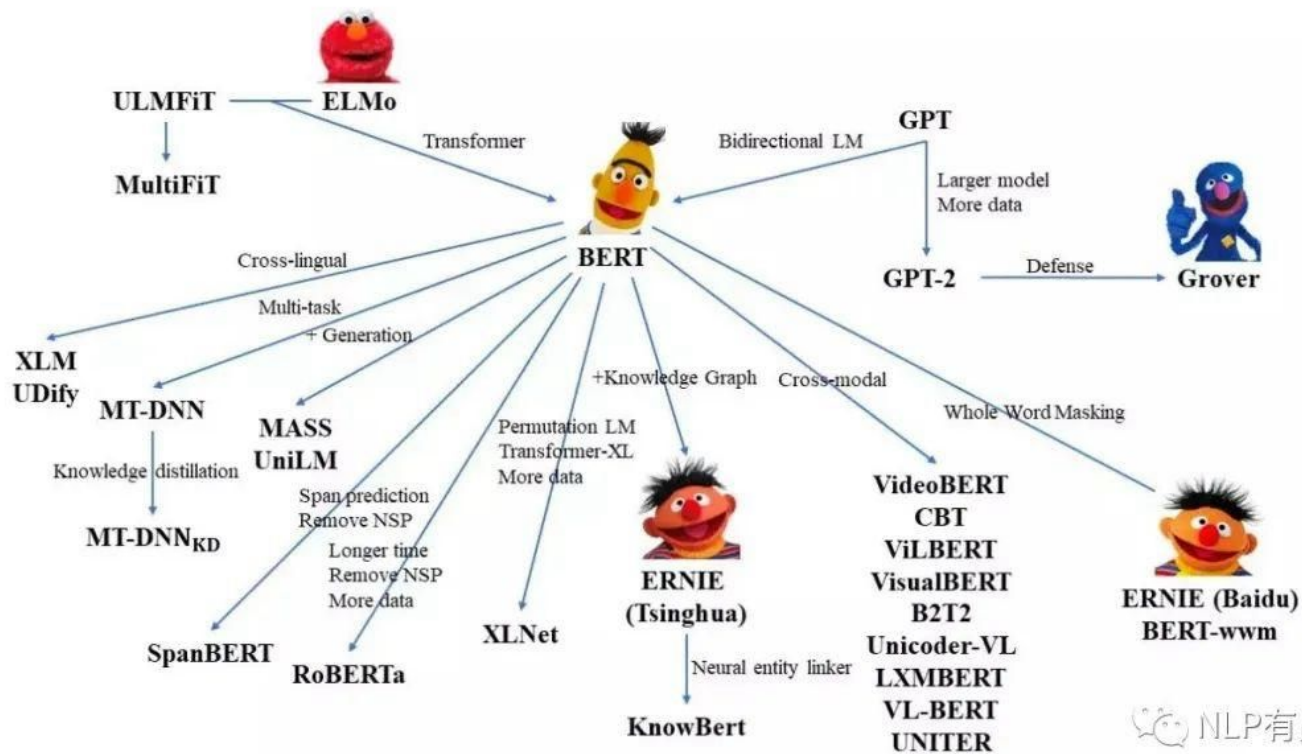
Bias

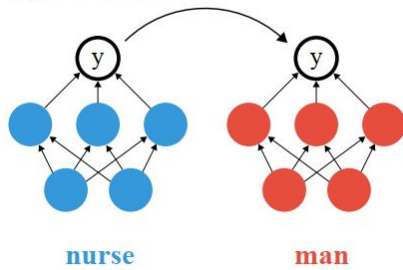**Prompt** u**:** The nurse said that __
Stereotypical candidate: she
Anti-stereotypical candidate: he

Bias

$$\frac{p_\theta(he \mid \textit{The man said that})}{p_\theta(she \mid \textit{The man said that})} \bigg/ \frac{p_\theta(he \mid \textit{The nurse said that})}{p_\theta(she \mid \textit{The nurse said that})} - 1.$$
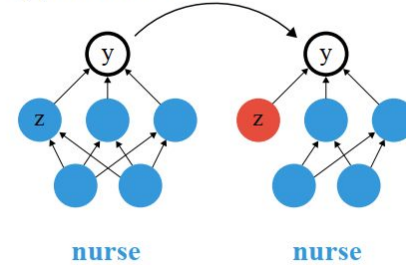
(a) Total Effect
(b) Direct Effect
(c) Indirect Effect
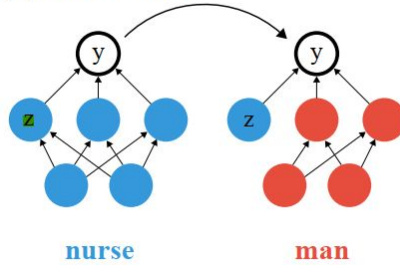
References

https://www.analyticssteps.com/blogs/an-optimum-approach-towards-the-bag-of-words-with-code-illustration-in-python

https://developer.ibm.com/technologies/artificial-intelligence/articles/a-deeper-look-at-the-syntax-api-feature-within-watson-nlu/

https://devopedia.org/n-gram-model

Thank You

Questions?

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