



## Dataset

Train\_news: 779207 articoli

Test\_news: 10000 articoli

	url	date
0	http://www.bloggers4ukip.org.uk/2017/01/snapch	2017-01-10T14:53:08+00:00
1	http://atosbiz.com/aon-launches-solution-to-he	2017-01-10T14:53:10+00:00
2	https://www.eventbrite.co.uk/e/we-demand-makin	2017-01-10T14:53:10+00:00
3	http://www.theregister.co.uk/2017/01/09/ukclou	2017-01-10T14:53:11+00:00
4	http://www.globalindianinvestments.com/uk-shou	2017-01-10T14:53:16+00:00

## Scraping

- Newspapers3k
  - Article
  - Title
  - Authors
  - Text
  - Keywords

- Check
  - Title
  - Keywords
  - ► Text-

## Preprocessing

- 180 articoli per ogni giorno
- Data cleaning:
  - Rimozione caratteri di escape
  - Rimozione caratteri HTML
  - Rimozione URL
  - Rimozione numeri
  - Gestione negazioni

- Tokenizzazione
- Rimozione StopWords
- Rimozione punteggiatura
- Lemmatization

## Data Exploration – Che dati abbiamo?

WordCloud Articoli

WOULD take week leave may could your referendum obusiness labour time need go people see british of trump world want remain one make world want state know state know your land on the party state know your land on the party world want report well trade minister first partiagent trump for the party well trade minister first partiagent trump to the party well trade minister first partiagent trump to the party well trade minister first partiagent trump to the party well trade minister first partiagent trump to the party well trade minister first partiagent trump to the party well trade minister first partiagent trump to the party well trade minister first partiagent trump to the party well trade minister first partiagent trump to the party well trade minister first partiagent trump to the party well trade minister first partiagent trump to the party world want to the party well trade minister first partiagent workpoints workp

WordCloud Titoli

```
bill london leader news price british warns british wants at leader news price british warns british
```

# Data Exploration - NER

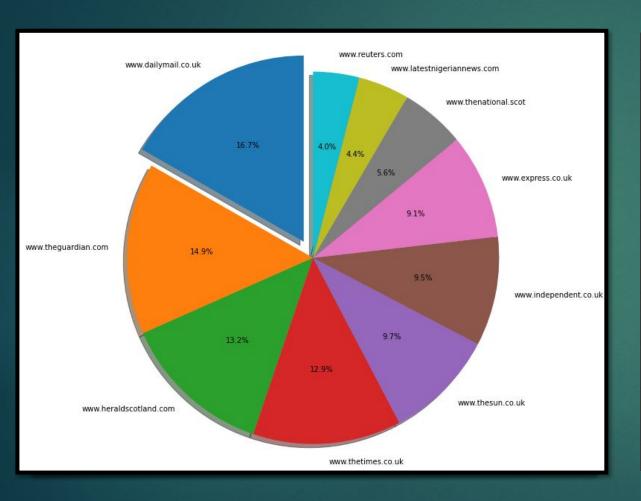
#### Spacy

	Labels			Entities
labe]		count	name	
ORG	0	69916	EU	0
GPE	1	67056	Brexit	1
PERSO!	2	58407	UK	2
DATE	3	34460	Britain	3
NORE	4	20529	British	4
CARDINAL	5	17976	Europe	5
LOC	6	16243	May	6
ORDINAL	7	14359	US	7
WORK_OF_ART	8	13797	London	8
MONE	9	13771	first	9
FAC	10	13489	Trump	10

Labels			
	label	count	
0	ORG	379114	
1	GPE	323439	
2	PERSON	306232	
3	DATE	192631	
4	NORP	117551	
5	CARDINAL	56898	
6	LOC	34552	
7	ORDINAL	28530	
8	WORK_OF_ART	12893	
9	MONEY	11410	
10	FAC	9413	

#### Keywords

# Data Exploration - URL

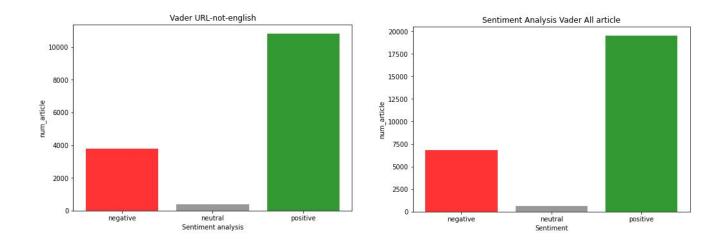


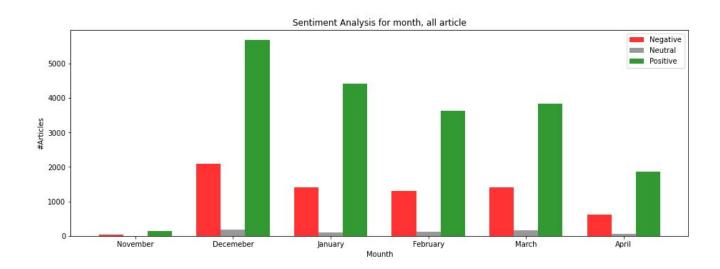
	url	occorrences	origin	ip	orientation	party
0	www.dailymail.co.uk	983	GB	23.54.196.207	Right-wing	Conservative Party
1	www.theguardian.com	874	GB	151.101.1.111	Centre-left	Labour Party
2	www.heraldscotland.com	772	GB	93.174.10.103	Centrist	NaN
3	www.thetimes.co.uk	756	GB	13.226.50.69	Centre-right	Conservative Party
4	www.thesun.co.uk	567	GB	65.8.183.118	Right-wing	Conservative Party
5	www.express.co.uk	536	GB	65.8.248.71	Right-wing	Conservative Party
6	www.thenational.scot	329	GB	93.174.10.103	Center-left	Scottish National Party
7	www.telegraph.co.uk	222	GB	104.121.97.109	Right-wing	Conservative Party
8	www.irishexaminer.com	195	ΙE	213.182.13.37	Centrist	NaN
9	www.independent.ie	189	IE	65.8.183.76	Centre-right	NaN
10	www.scotsman.com	172	GB	104.18.2.43	Right wing	NaN
11	www.belfasttelegraph.co.uk	138	GB	13.226.50.43	Centrism	NaN
12	www.mirror.co.uk	124	GB	65.8.183.45	Centre-left	Labour Party
13	www.themalaymailonline.com	122	MY	110.74.168.99	Moderate	NaN
14	www.ft.com	72	GB	151.101.2.109	Centrism	NaN
15	www.newstatesman.com	61	GB	151.101.2.133	Centre-left	Labour Party

## Sentiment Analysis

Sentiment analysis

Aspect Based sentiment analysis





# Sentiment Analysis -Testuale

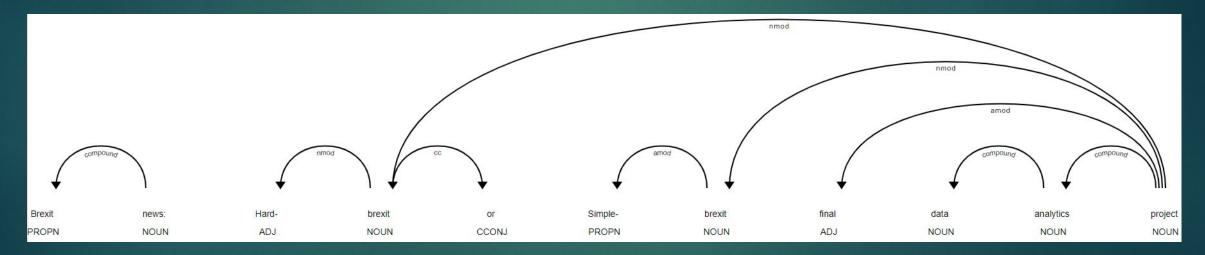
#### ABSA – Aspect Extraction

Rule-based con Spacy dependency parser

Output Aspect Extraction- tupla (aspetto, descrizione) Vader applicato su descrizione M

M: descrizione aspetto

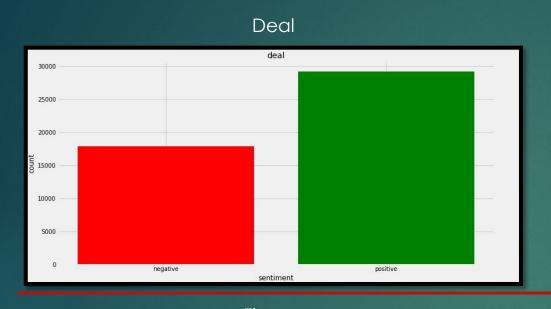
A: aspetto

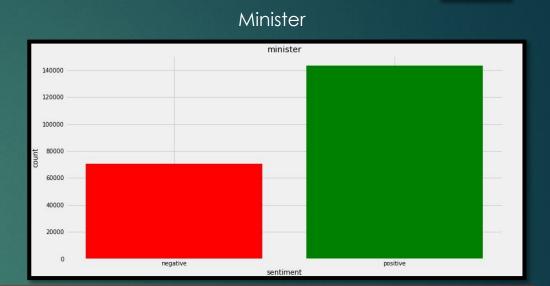


# ABSA – Aspect Extraction Di cosa si parla ?- wordcloud aspetti

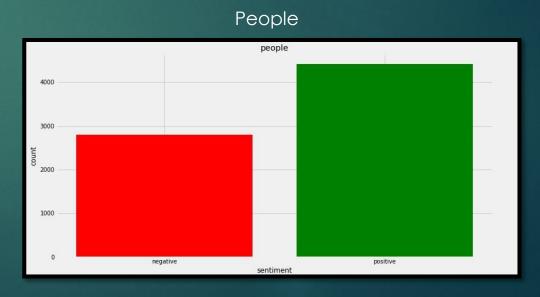


#### ABSA – Aspect Clustering







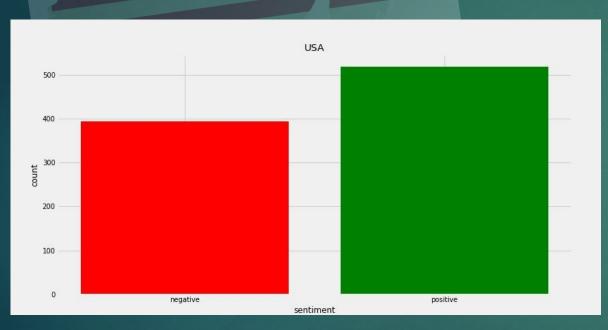


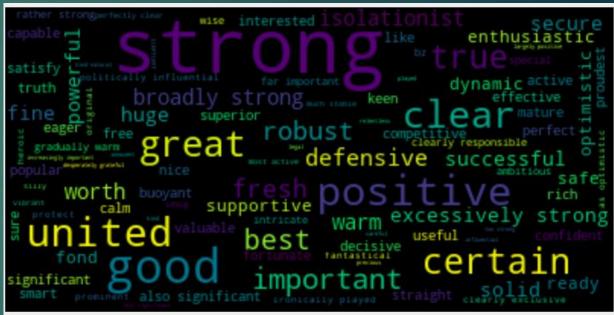
#### ABSA – Topic specifici Quali sono i maggiori argomenti citati dagli articoli?

Topics	Aspetti
Labour party	corbyn, labour
Conservative party	conservative, theresa, may
Europe	"brussels", "europe", "union", "europeans", "eurosceptics", "germany", "italy", "euro", "eu"
Brexit	"brexit"
Referendum	"referendum", "vote", "election", "brexit", "poll", "exit"
Deal	"deal", "firm", "meeting", "offer", "future", "negotiation", "decision", "bill"
Economy	"trade", "economy", "market", "bank", "industry", "price", "pound", "tax", "money", "economist"
Immigration	"migration", "immigrant, "migrant", "muslim", "immigration"
USA	"us", "u.s", "trump", "dollar", "donald"
UK	"uk", "country", "britain", "kingdom", "london", "scotland", "england"

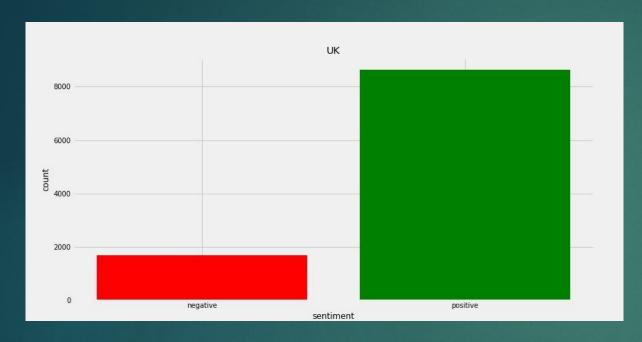
# Analisi

## Gli USA quanto stanno influenzando la brexit?





#### UK



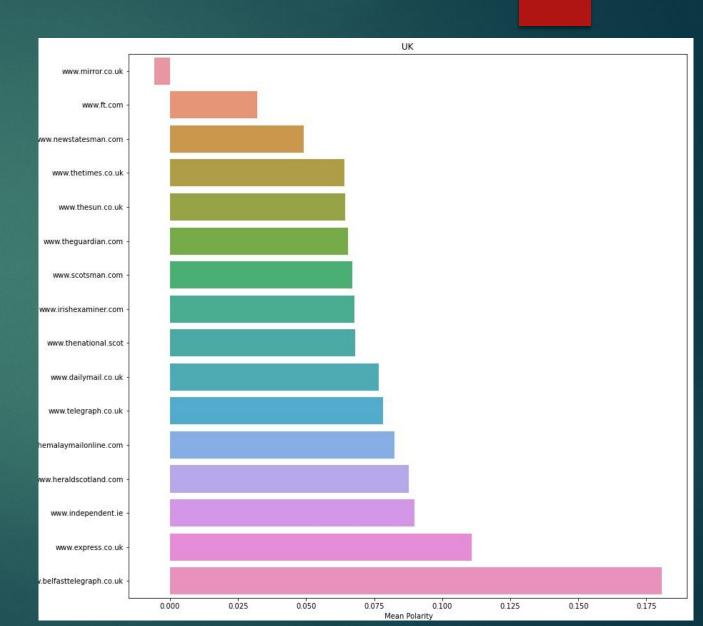




POLARITA': Positiva

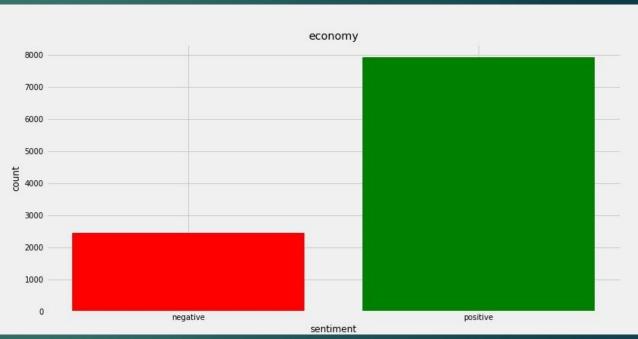
Positivi: Belfasttelegraph (Destra) Express (Centro-Destra)

Negativi: Mirror(Centro-Sinistra)

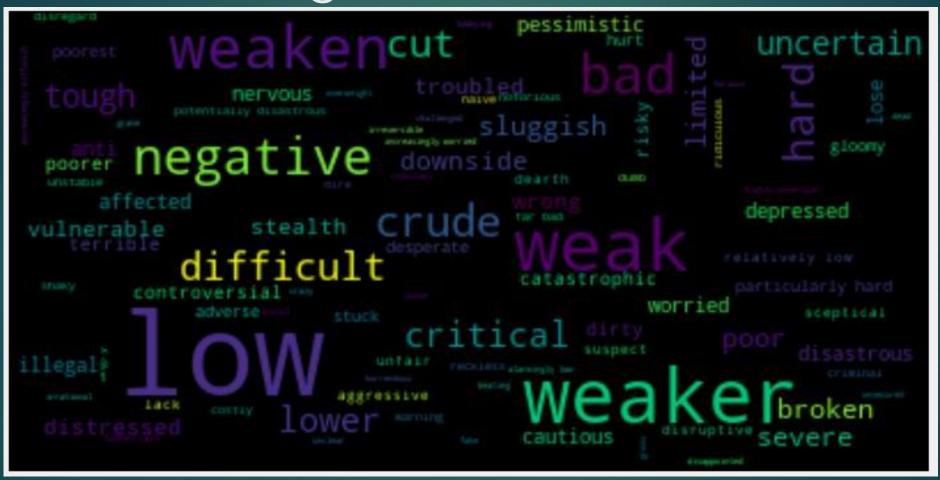


#### Economia e mercato aspetti tanto discussi

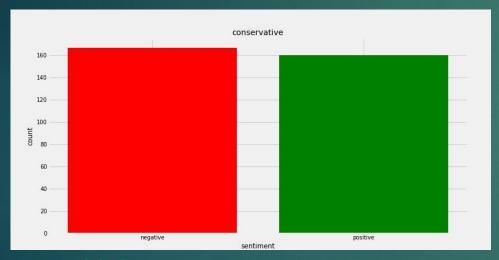




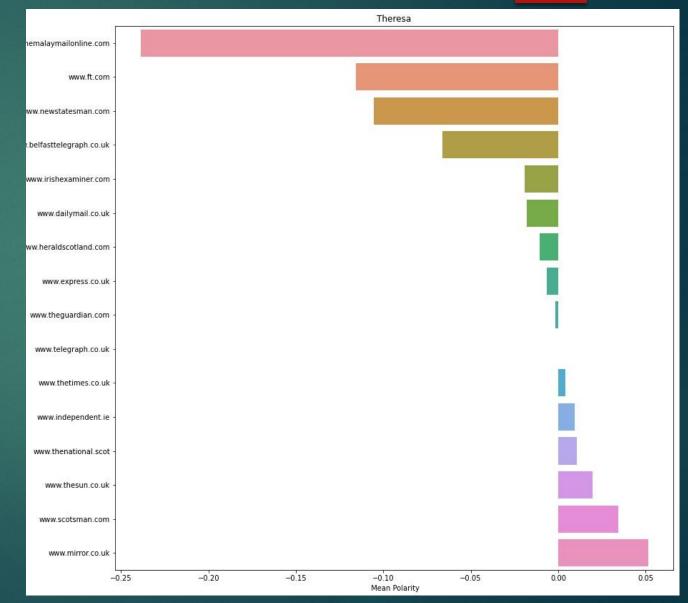
## Com'è visto l'aspetto economico? Wordcloud negativa



## Come si parla di Theresa May?



Positivi: Mirror (Centro-Sinistra)
Scotsman (Destra)
Negativi: The Malay Mail (Moderato)
FT (Centro)



Come si parla di Theresa May







#### E invece dell'opposizione? Labour party

Labour

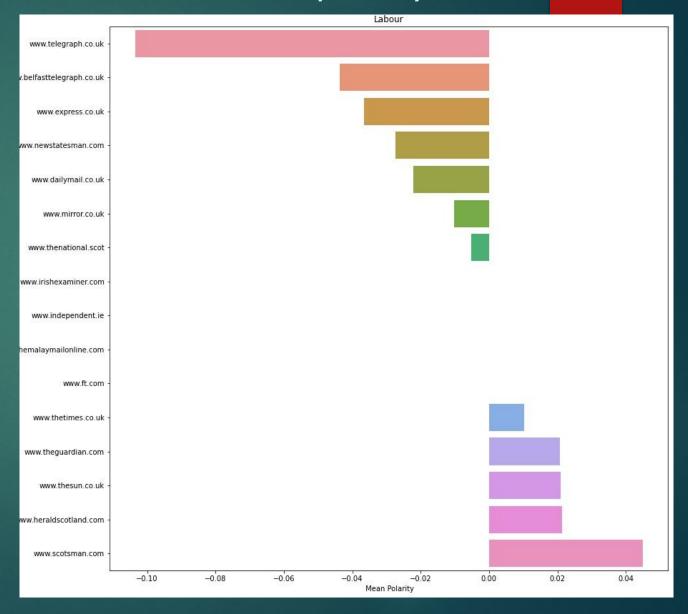
POLARITA': Positiva

Positivi: Scotsman(Destra)

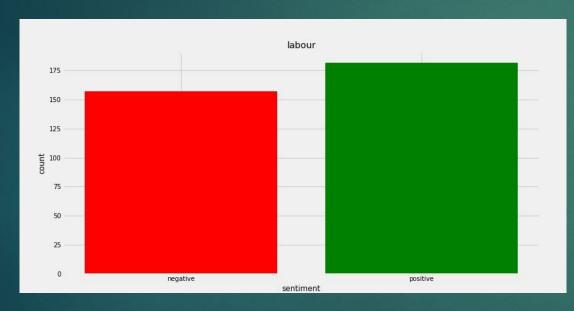
HeraldScotland(Centro)

Negativi: Telegraph(Destra)

Belfasttelegraph(Destra)



## E invece dell'opposizione? Labour party





#### Gli articoli sono influenzati dai giornali con un orientamento politico?

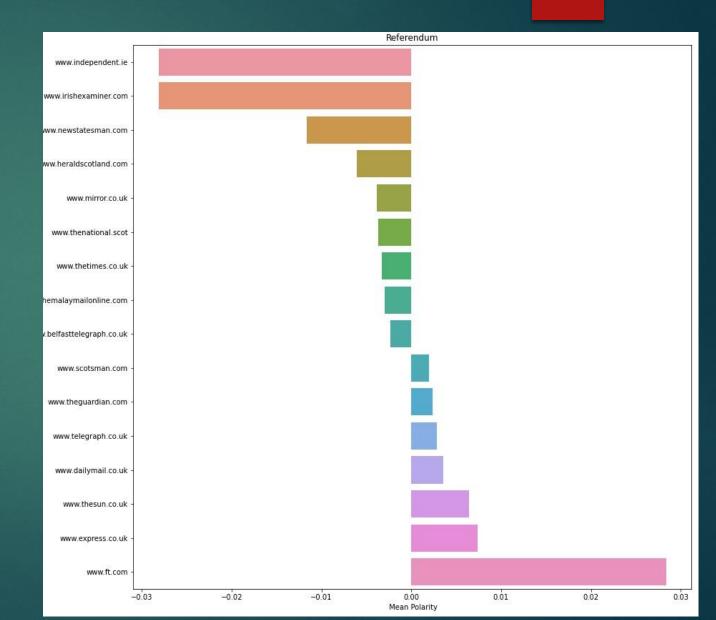


Positivi: FT(Centro)

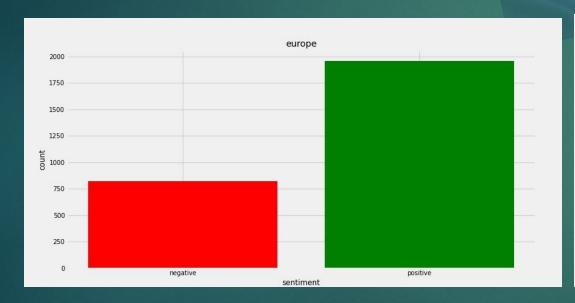
Express(Destra)

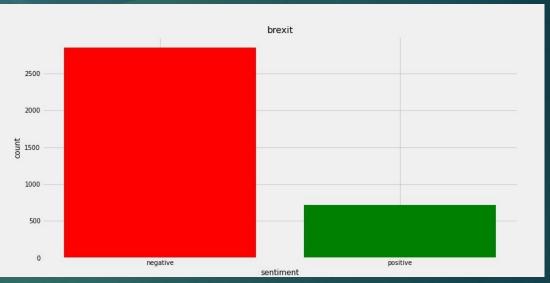
Negativi: Indipendent (Centro-Destra)

Irish Examiner (Centro)



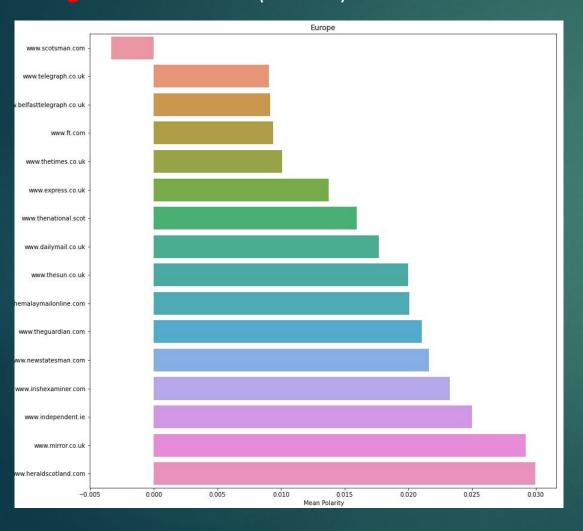
#### Rimanere o uscire dall'UE?





#### I giornali come si schierano?

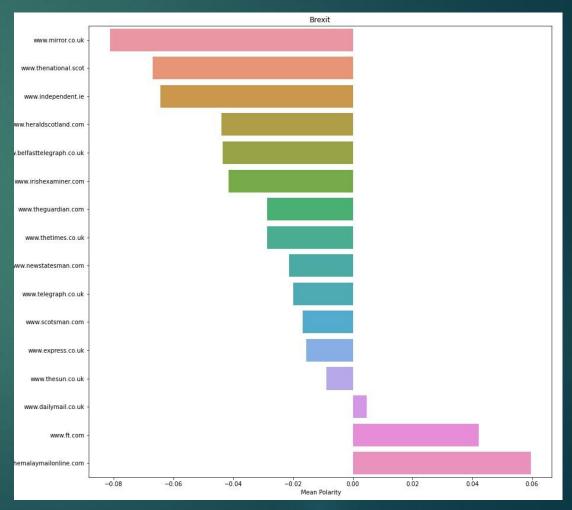
Positivi: HeraldScotland(Centro)
Mirror(Centro-Sinistra)
Negativi: Scotsman(Destra)



Positivi: The Malay Mail(Moderato)
FT(Centro)

Negativi: Mirror(Centro-Sinistra)

The Nation.scot(Centro-Sinistra)



## DEAL-Hard-Brexit o Soft-Brexit





Presentazione alla camera dell'European Union Bill

### Hard Brexit o Soft-Brexit?

positive wordcloud-deal



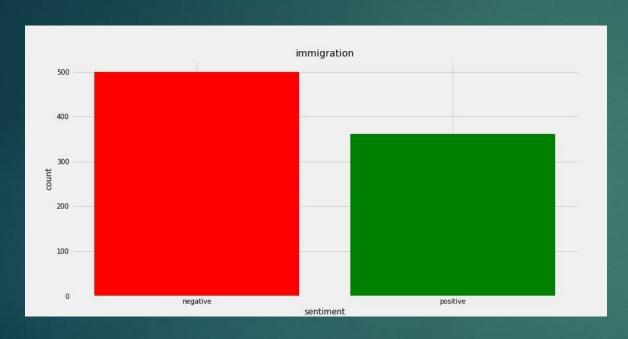
negative wordcloud-deal

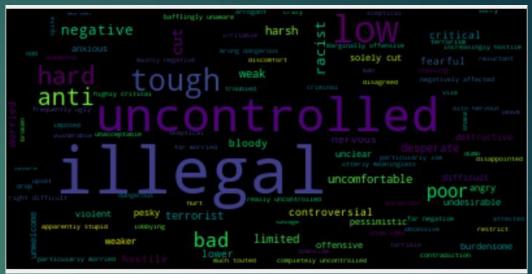


negative wordcloud brexit



## Immigrazione-come se ne parla?







#### IMMIGRATION

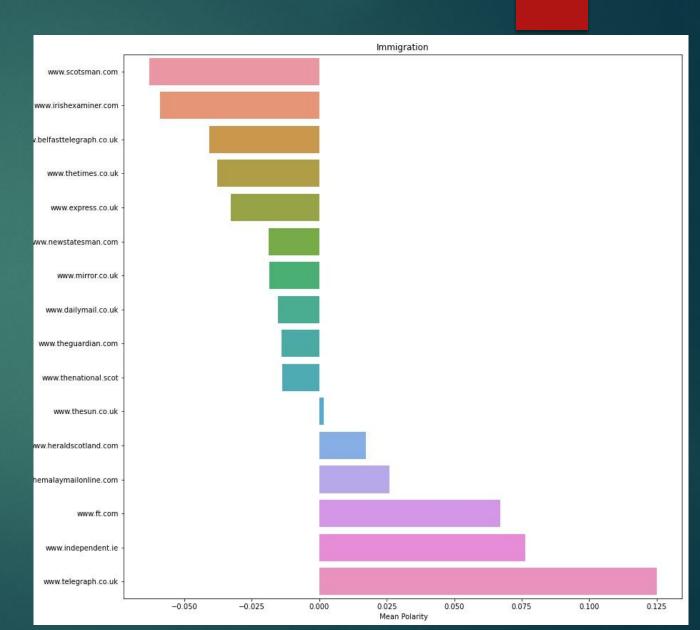


Positivi: Telegraph (Destra)

Indipendent(Centro-Destra)

Negativi: Scotsman(Destra)

Irish Examiner(Centro)



#### Conclusioni

- Cattive performance della Sentiment Analysis sull'intero articolo
- Con la Brexit il Regno Unito si "ispira" agli Stati Uniti
- Sotto l'aspetto economico e commerciale il Regno Unito vuole liberarsi dalle restrizioni imposte dall'UE
- L'operato e le negoziazioni di Theresa May sono stati molto criticati nell'UK
- I giornali criticano la Brexit considerandola una decisione troppo rischiosa, rispetto alla sicurezza che c'è all'interno dell' Europa
- L'immigrazione è un tema che supera gli orientamenti politici che i giornali sostengono, l'UK punta al controllo totale dei propri confini