

# ONLINE **DISINFORMATION** MONITORING SYSTEM



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Information and disinformation production



Information and disinformation categories



Information and disinformation on the European elections



Information and disinformation on topics of European relevance



Main topics of disinformation



Appendix

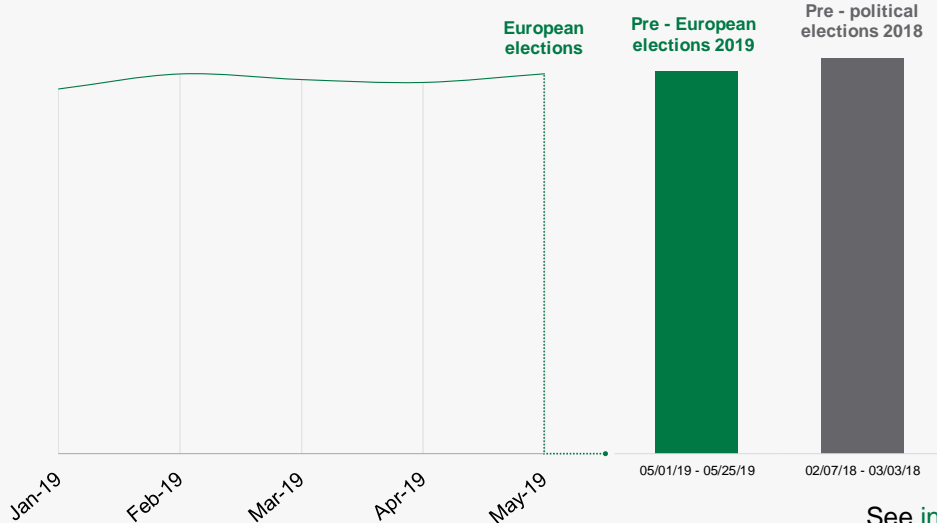


Methodological note



## Total news production on an average day

## NEWS PRODUCTION IN ITALY



The analysis of the overall news production in Italy shows:

- an increase of 2% in May 2019 compared to April 2019
- the total amount of news production in the 25 days before the elections is lower than the news produced in the corresponding period of time before the 2018 political elections in Italy

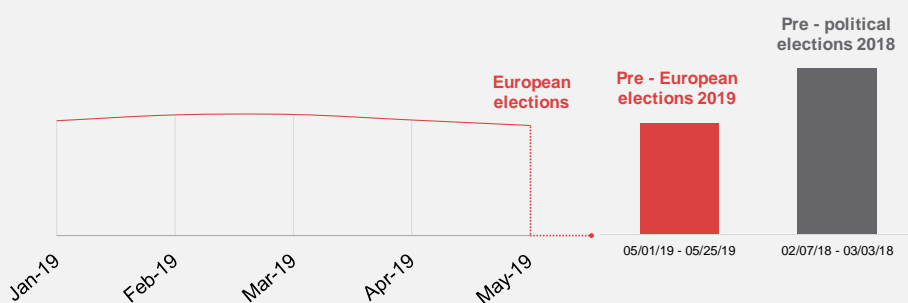
See [information on the European elections](#)

## ONLINE DISINFORMATION IN ITALY

Analysis of the overall content produced in Italy by disinformation websites and social pages/accounts, shows that:

- online disinformation in an average day of May 2019 has decreased of 5% in comparison with the previous month
- online disinformation volume produced in the 25 days before the last European elections is clearly lower in comparison with the 2018 political elections period

## Total disinformation production on an average day



See [disinformation on the European elections](#)

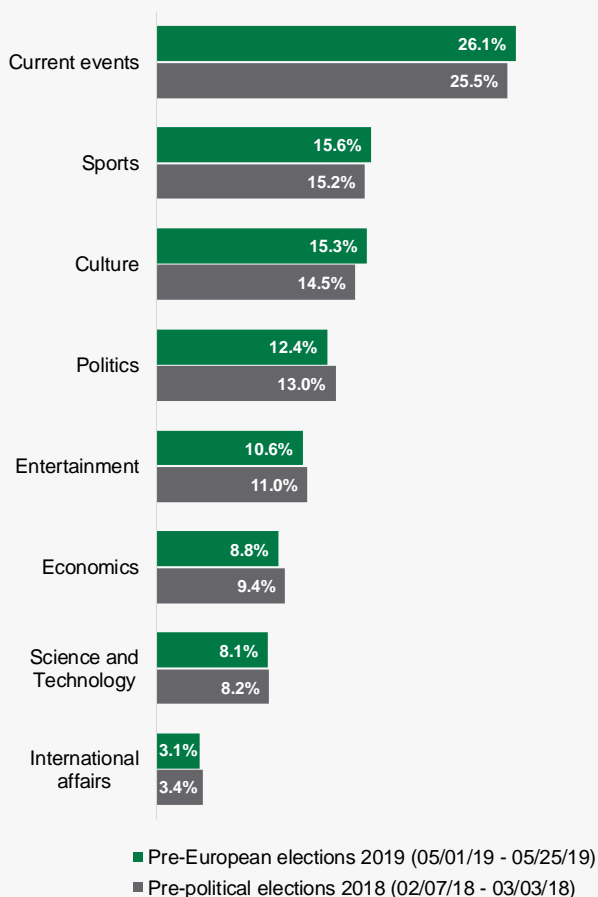
**-5%** than April 2019

ONLINE DISINFORMATION ON AN AVERAGE DAY OF MAY 2019

LESS DISINFORMATION IN THE MONTH OF EU ELECTIONS COMPARED TO THE MONTH OF 2018 POLITICAL ELECTIONS

# Information and disinformation categories

Supply distribution of information, by category



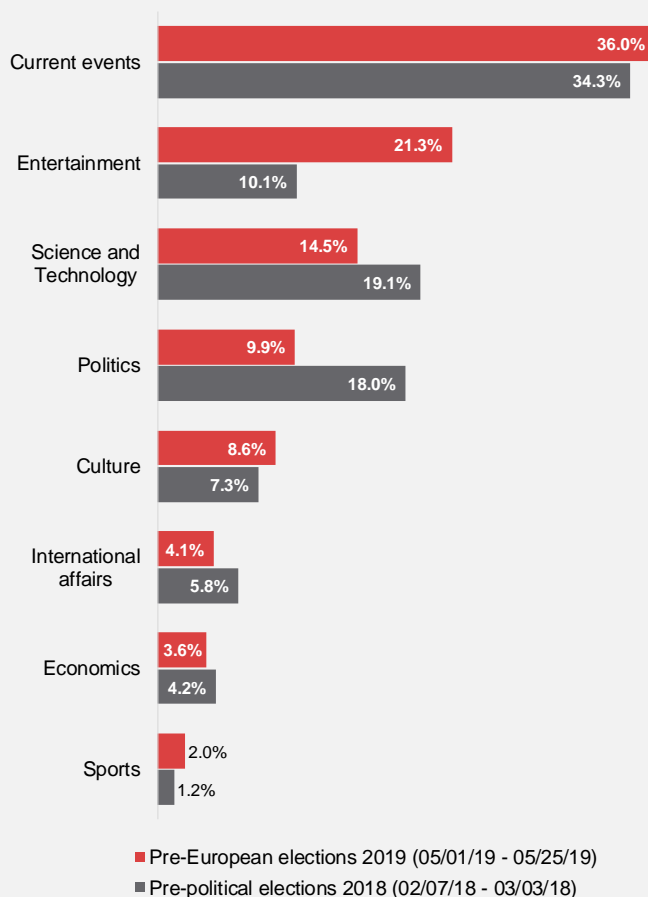
## INFORMATION CATEGORIES

By examining the supply distribution of news contents in the 25 days before the European elections we observe that:

- the supply distribution is almost the same as in the corresponding electoral period of 2018
- “current events” remains the most covered (over a quarter of the generated news), followed by sports and culture
- the lack of scientific news supply is still present (8% of total news supply)

**CURRENT EVENTS REMAINS THE MOST COVERED CATEGORY OF ONLINE DISINFORMATION**

Supply distribution of online disinformation, by category



## ONLINE DISINFORMATION CATEGORIES

Analysis of contents produced by disinformation websites from the 1<sup>st</sup> to the 25<sup>th</sup> of May 2019 shows:

- persistent concentration of online disinformation regarding current events, covered by 36% of the published articles
- an incidence reduction of disinformation on the total contents related to “politics”, shifting from 18% in the 2018 pre-elections period to 10% in the corresponding period of the European elections held on the 26<sup>th</sup> of May 2019
- a strong increase of disinformation articles focusing on entertainment and the show business

**LOWER INCIDENCE OF POLITICS ON DISINFORMATION CONTENTS, IN COMPARISON TO THE 2018 PRE-ELECTORAL PERIOD**

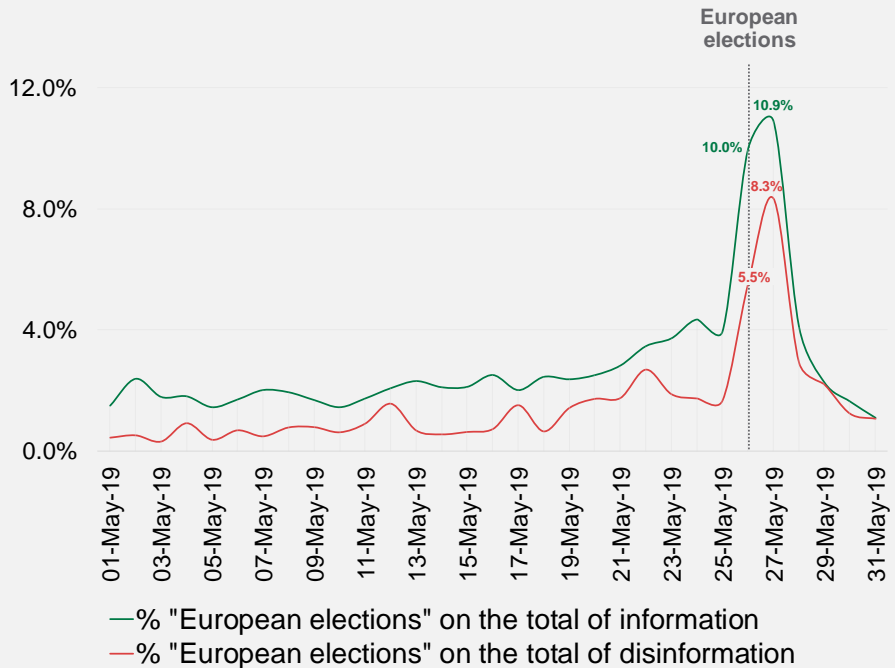
# Information and disinformation on the European elections

## NEWS-MEDIA COVERAGE OF THE EUROPEAN ELECTIONS IN ITALY

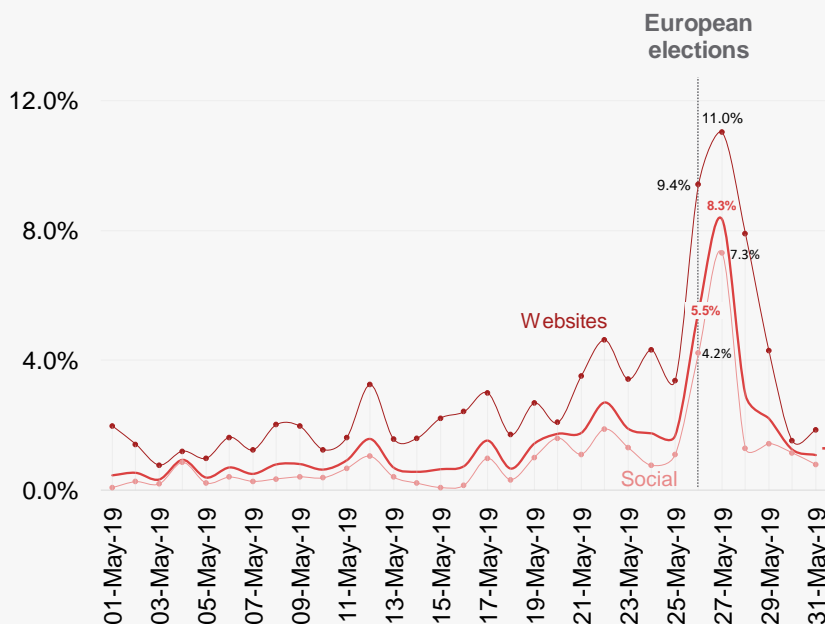
Regarding the news coverage of the European elections in May 2019 is found:

- an increasing trend for both information and disinformation sources in correspondence of the approaching and during the elections
- the highest values are on the 26<sup>th</sup> (EU elections day) and the 27<sup>th</sup> of May, when information on the European elections is respectively 10% and 11%, while disinformation is 6% and 8%
- an average incidence of disinformation contents equal to 2% a front of 3% in the case of information

Incidence of the "European elections" topic on the total information and disinformation



Incidence of the "European elections" topic by type of disinformation source



## EUROPEAN ELECTIONS COVERAGE BY DISINFORMATION SOURCES

By focusing on the sources of online disinformation (websites and social pages/accounts) we note that:

- as for disinformation websites, the incidence of contents regarding the European elections (3% in an average day of May 2019) is always higher than the one found in the social disinformation sources (1% at average)
- for both, the peak of contents focusing on the European elections is registered on the day after voting, with an incidence of 11% for websites and 7% for social sources

**3%** in May 2019

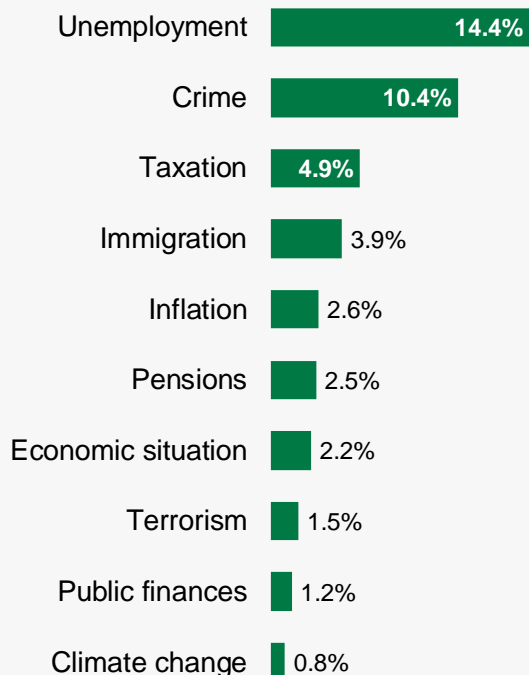
THE SPACE DEDICATED TO EUROPEAN ELECTIONS BY DISINFORMATION WEBSITES

**1%** in May 2019

THE SPACE DEDICATED TO EUROPEAN ELECTIONS BY SOCIAL DISINFORMATION SOURCES

# Information and disinformation on topics of European relevance

## Incidence of topics of European relevance on the total information (May 2019)



## INFORMATION ON TOPICS OF EUROPEAN RELEVANCE

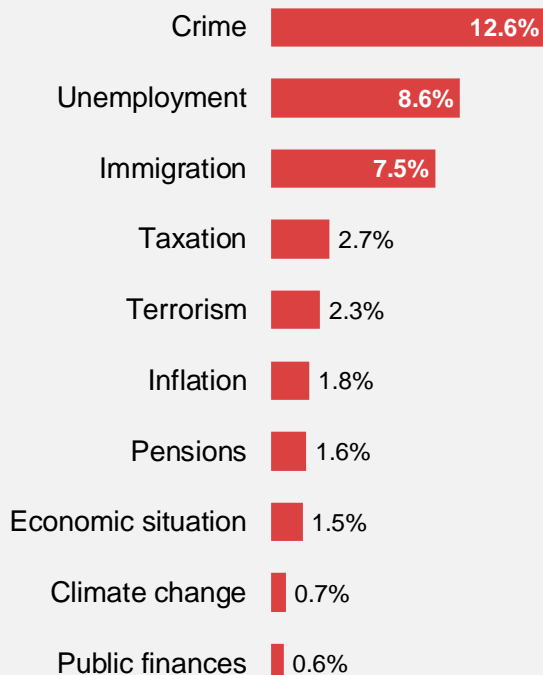
By focusing on the themes of European relevance identified by Eurobarometer, we found that in Italy:

- in May 2019, unemployment and crime are still the topics with the highest incidence on the total news content (more than 10% in both cases)
- taxation and immigration are in the third and fourth position with percentages that are however below 5%
- the smallest space in the news is occupied by climate change (less than 1% of the total)

## AMONG TOPICS OF EUROPEAN RELEVANCE:

**UNEMPLOYMENT IS STILL THE MOST COVERED ISSUE BY INFORMATION SOURCES, WHILE CRIME IS THE MOST PRESENT AMONG DISINFORMATION SOURCES**

## Incidence of topics of European relevance on the total disinformation (May 2019)



## ONLINE DISINFORMATION ON TOPICS OF EUROPEAN RELEVANCE

Analysis of online disinformation in May shows an overall increase of the space dedicated to the topics of European relevance. In more details:

- crime is still ranked as the most covered topic of disinformation in Italy, with an incidence of 13% on the total
- unemployment and immigration stay still in the same position, keeping the second and third placement in the ranking, with an incidence of 9% and 8% respectively

**DURING THE EUROPEAN ELECTIONS MONTH, IT GROWS MAINLY THE SPACE DEVOTED BY THE SOURCES OF DISINFORMATION TO CRIME, UNEMPLOYMENT AND IMMIGRATION**

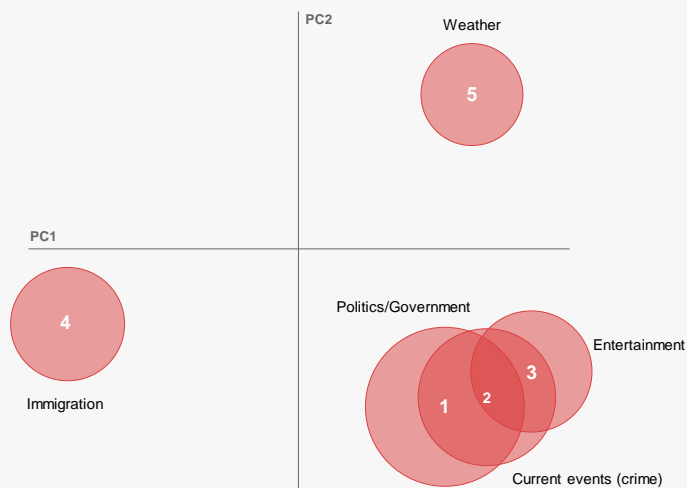
# Main topics of disinformation

## MAIN TOPICS OF ONLINE DISINFORMATION

Textual analysis (*topic modeling*) of the contents published by disinformation websites allows the identification of frequently co-occurring terms in the analyzed documents, and identifying macro-themes. It shows that:

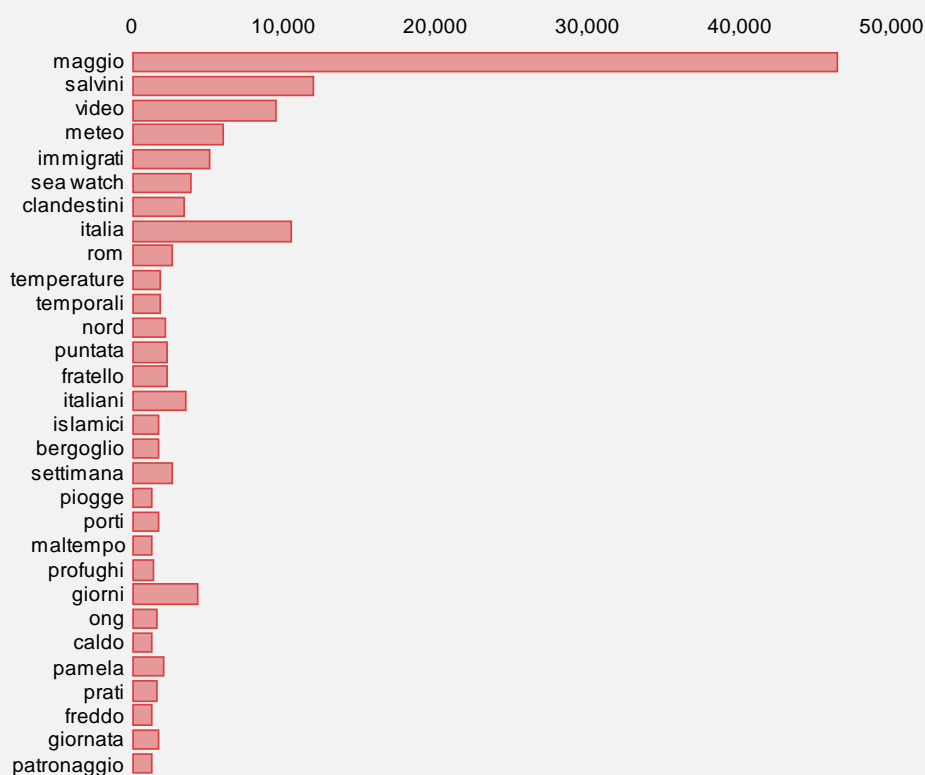
- in May 2019, the 5 main topics covered are related to politics and the Government action (with specific regard to the economy, employment and safety); crime in current affairs; show business and gossip; immigration; weather forecast

## Main topics of online disinformation (May 2019)



The list of the 30 most frequent terms referable to each topic is presented in the [Appendix](#)

## Top-30 most salient terms in the disinformation websites (May 2019)



## SALIENT TERMS OF ONLINE DISINFORMATION

The frequency distribution of the terms contained in the articles of the disinformation websites shows that:

- about one third of the 30 most frequent terms relates to immigration (for instance, “immigrazione”, “clandestini”, “porti”, “sea watch”, “ong”))
- among others, the terms which describe severe weather conditions (including “temporali”, “piogge”, “caldo”, “maltempo”), religious sphere (such as “Bergoglio”, “islamici”), and the affairs related to TV shows and celebrities (such as “puntata”, “fratello”, “pamela”, “prati”)

**POLITICS/GOVERNMENT, CRIME, ENTERTAINMENT, IMMIGRATION AND WEATHER ARE THE MAIN TOPICS OF ONLINE DISINFORMATION IN MAY 2019**



## SALIENT TERMS OF THE MAIN TOPICS OF ONLINE DISINFORMATION

The composition of each topic of disinformation allows to obtain indications about the specific object of the disseminated news, based on the salient terms associated with the topics.

In this sense, for each of the 5 main topics of disinformation in May 2019, a list of the 30 most frequent terms, by occurrence, is presented:

### 1. POLITICS/GOVERNMENT

- euro
- anni
- italia
- governo
- ministro
- fatto
- stati
- oggi
- caso
- presidente
- paese
- anno
- interno
- legge
- persone
- europa
- politica
- milioni
- lavoro
- sicurezza
- lega
- guerra
- volta
- nazionale
- sistema
- cittadini
- tempo
- viene
- momento
- grazie

### 2. CURRENT EVENTS (CRIME)

- anni
- vita
- persone
- fatto
- uomo
- mondo
- napoli
- caso
- ospedale
- tempo
- salute
- viene
- giorno
- famiglia
- stati
- donna
- acqua
- morte
- polizia
- casa
- momento
- giorni
- studio
- dieta
- corpo
- durante
- capelli
- oggi
- volta
- spesso

### 3. ENTERTAINMENT

- casa
- fatto
- fratello
- puntata
- donne
- pamela
- prati
- uomini
- eliana
- francesca
- barbara
- momento
- foto
- anni
- michelazzo
- vita
- storia
- ragazza
- durante
- rai
- donna
- maggio
- programma
- onda
- amore
- social
- ultima
- giorgio
- giorni
- caltagirone

### 4. IMMIGRATION

- maggio
- salvini
- video
- immigrati
- sea watch
- clandestini
- italia
- rom
- italiani
- islamici
- bergoglio
- porti
- milano
- sinistra
- profughi
- ong
- vuole
- foto
- migranti
- patronaggio
- africani
- lega
- sbarco
- libia
- roma
- anni
- euro
- casa
- immigrazione
- lampedusa

### 5. WEATHER

- meteo
- maggio
- italia
- nord
- temperature
- temporali
- giorni
- settimana
- tempo
- piogge
- mese
- giornata
- maltempo
- caldo
- freddo
- sud
- regioni
- domani
- centro
- aria
- previsioni
- condizioni
- europa
- estate
- giugno
- inizio
- oroscopo
- sotto
- neve
- valori



## THE COMPOSITION OF THE DATABASE

The information reported in this document are the result of Agcom elaborations carried out on a database built from data extrapolated through the platform developed by *Volocom Technology*.

In particular, the analyzes were conducted on the entire textual content extrapolated from more than 7 million documents created in Italy (in the first four months of 2019 and in the month before the 2018 political elections) by more than 2,000 information sources (national television and radio channels, newspapers, news agencies, websites of traditional publishers, native online news outlets, and related pages and accounts of social networks), and sources of disinformation (websites and social pages/accounts) identified as such by external subjects specialized in debunking activities. The amount of online disinformation produced in Italy was therefore estimated using a subjective methodology, i.e. considering the total number of documents created monthly by the aforementioned sources of disinformation.

The database is composed by the entire textual content of all documents produced during a day by every information and disinformation source. With document, we mean the entire article, in the case of newspapers and information websites; the transcription of a transmission segment, in the case of Tv and radio: all tweets/posts in the case of online platforms.

## TOPIC MODELING

For the study of the main topics of online disinformation, analyzes were carried out on the entire content disseminated by the disinformation websites in May 2019, adopting a methodological approach known as topic modeling.

A topic model is a statistic model for the automatic individuation of topics appearing in a collection of documents. In particular, the classification of the text together to the group of fake contents in determined topics was obtained by means of the use of a LDA-model (Latent Dirichlet Allocation) - an algorithm of not-supervised automatic learning considering the frequency and the co-occurrence of the terms used in the collection of documents. The same is at the basis of LDAvis (Sievert e Shirley, 2014), the interactive visualization system that supplies an overall vision on the identified topics (and of the way in which they differ), allowing at the same time a deep analysis of the most salient terms, associated to every one of them. In detail, every topic is represented by a circle, which amplitude shows the occurrence frequency in the entire group of the examined documents. Moreover, the topics have a position in the Cartesian coordinate system, being around the horizontal and vertical axes, representing the two main dimensions that explain the variability of the data.

## FURTHER INFORMATION

For more information on the methodological aspects, see Agcom Report (2018), [\*News vs. fake in the information system\*](#)

For more technical information and definitions regarding online disinformation, see Agcom Report (2018), [\*Online disinformation strategies and the fake content supply chain\*](#)

For further details and updates on the Agcom's activities in the field of online disinformation, it is possible to consult the area dedicated to [\*Technical Roundtable for safeguarding News-Media Pluralism and Fairness in the online Platforms\*](#)

All the numbers of the Online Disinformation Monitoring System can be consulted in a [\*specific section\*](#) of the Agcom website.



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