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*Future trends of technology in media  
and journalism*

- *13th September 2022*

From news making to decision  
making in the digital age

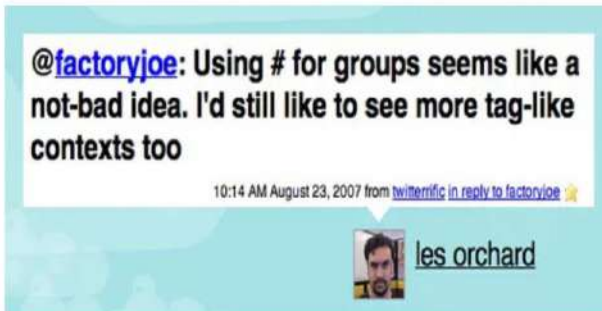


# From “all the news that’s fit to tweet” to *hashjacking*

## Hash-tags #

A **hashtag** is a metadata tag that is prefaced by the hash (or pound) sign. Hashtags are used on microblogging and photo-sharing services such as Twitter or Instagram as a form of user-generated tagging that enables cross-referencing of content by topic or theme. Services such as Twitter or Instagram as a form of user-generated tagging that enables cross-referencing of content by topic or theme.

## Channel Tags



## SYNTAX

- `follow #tag`: subscribe to all updates tagged with `#tag`
- `follow username#tag`: subscribe to all updates tagged with `#tag` from a specific user
- `leave #tag`: unsubscribe to a tag; you will still get updates with this tag from your friends
- `leave username#tag`: unsubscribe to a specific from a specific user
- `remove #tag`: completely remove all incoming posts tagged with `#tag`, even from your friends
- `#tag message`: creates a status in the `#tag` channel
- `#tag !message`: creates a status that is only visible to people subscribed to channel tag `#tag`

“Every time someone uses a *channel tag* to mark a status, not only do we know something specific about that status, but others can *eavesdrop* on the context of it and then join it” “Every time someone uses a *channel tag* to mark a status, not only do we know something specific about that status, but others can *eavesdrop* on the context of it and then join in the channel and contribute as well” (Messina, 2007)

## “Hashjacking” the Debate: Polarisation Strategies of Germany’s Political Far-Right on Twitter

P Darius, F Stephany - International Conference on Social Informatics, 2019 - Springer  
... in a way that we call “hashjacking”. The results underline the assumption of a ... hashjacking” strategies. While, as expected, we find a high likelihood of AfD supporters to use “hashjacking...”  
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## How the Far-Right Polarises Twitter: ‘Hashjacking’ as a Disinformation Strategy in Times of COVID-19

P Darius, F Stephany - ... Conference on Complex Networks and Their ..., 2021 - Springer  
... Thus, we will focus on these ‘hashjacking’ strategies as a tool of strategic political communication that also includes injecting disinformation into the mainstream/civil society discourse. ...  
☆ Save Cite Cited by 2 Related articles All 3 versions

## Twitter” Hashjacked”: Online Polarisation Strategies of Germany’s Political Far-Right

P Darius, F Stephany - 2019 - osf.io  
... in a way that we call “hashjacking”. The results underline the assumption of a ... hashjacking” strategies. While, as expected, we find a high likelihood of AfD supporters to use “hashjacking...”  
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# Outline

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The social media infosphere: the Italian snap elections project

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Natural Language Generation:  
GPT-3 & journalism

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“Leveraging argument technology for impartial fact-checking (LATIF)”

# Italian Elections & Media Literacy

- Following the resignation of the prime minister Mario Draghi on 21<sup>st</sup> July, Italy will face snap general elections on the 25<sup>th</sup> September
- ➡ First elections happening after the Digital Service Act has been adopted by the Council of European Union
- What is the role played by digital & social media in propaganda campaigns?
- What effect do algorithmic recommendation system of different social media platforms have on spreading political agendas?
- What is the role played by communities of fake news spreaders in shaping public opinion?

....

# Media Literacy & Elections Project

## Partners

- Luminate (<https://luminategroup.com/about>)
- Water on Mars (<https://www.wateronmars.it/>)



**Method:** computational social science -- leveraging natural language processing and social network analysis techniques to navigate the political infosphere and citizens' reactions as digital media users

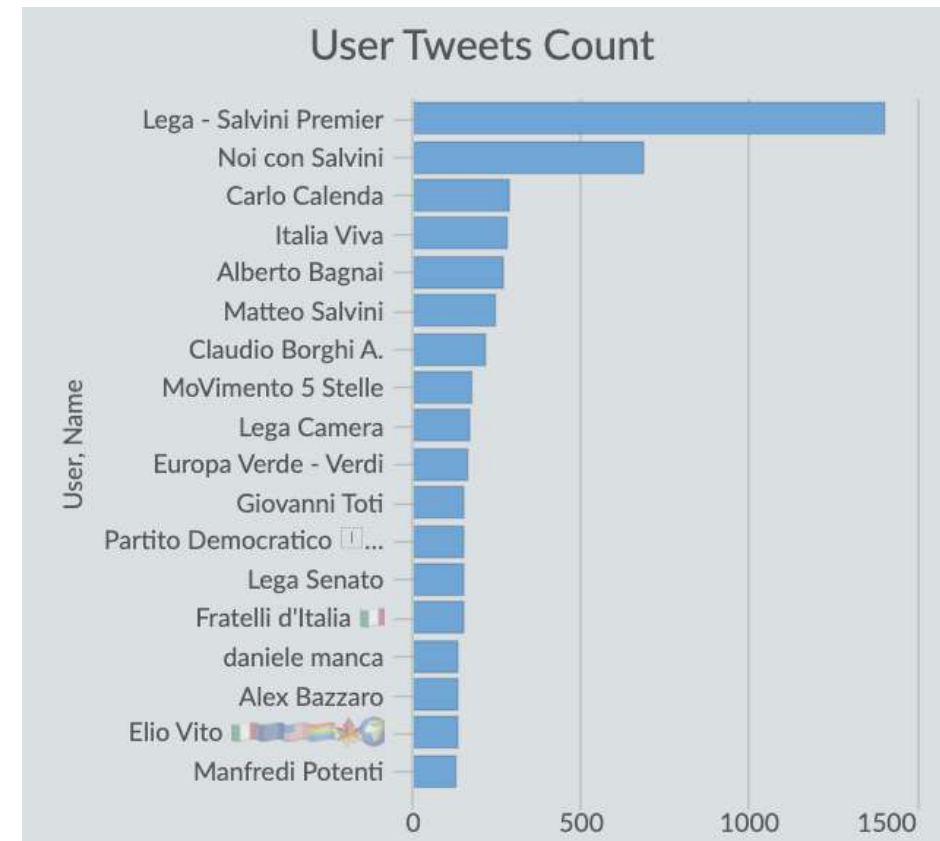
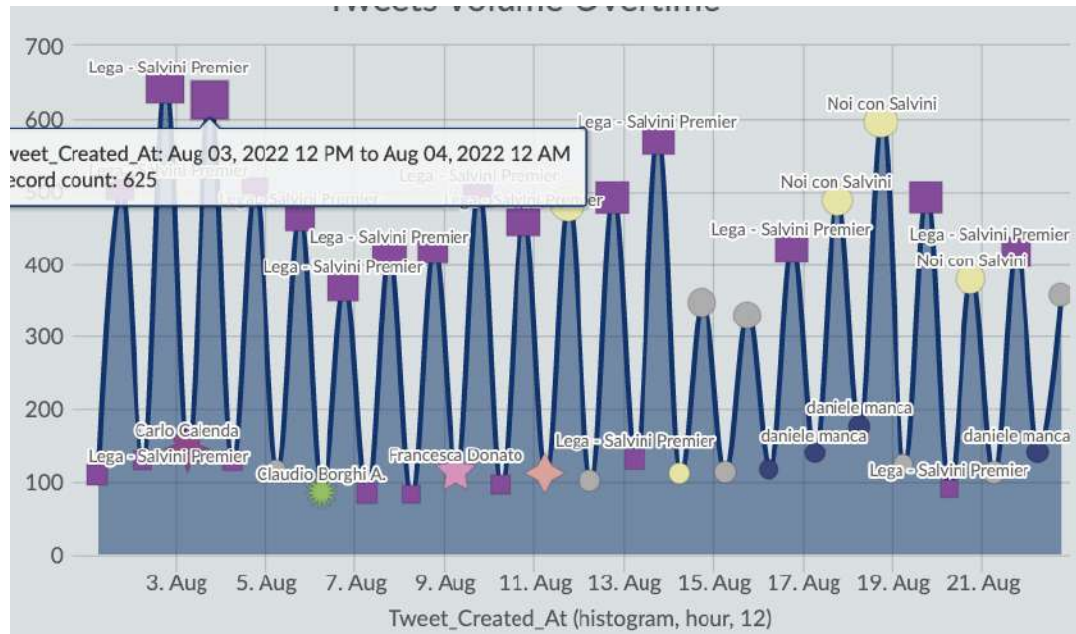
Platforms monitored: Twitter, Telegram, Instagram, Youtube, Tik Tok

- Facebook: we collected posts, reactions, shares and comments from more than 2000 posts from official pages and 1000 from official groups of politicians and parties;
- Instagram: ca 70,000 comments on 560 posts;
- TikTok: ca 25,000 comments on 380 posts by politicians;
- YouTube: last 50 videos of the parties examining the comments;
- Twitter: networks by collecting data from at least 50 million tweets.

- 1<sup>st</sup> February 2018: AGcom complements the *Par Condicio* Law (Law no. 28 of 2000) with guidelines to improve self-regulation of political propaganda:
- *Political Subjects' Equal Treatment* on traditional means (radio and tv), but currently not applicable to the Internet. Online platforms shall make sure that all political actors enjoy same access to communication means ...
- *Political Propaganda's Transparency on ads...*
- *Dissemination of polls' results and online polls forbidden up to 15 days before elections*
- *Political Propaganda forbidden on Election Day and Day Before ("silenzio elettorale")*
- *Public administrations not to use social media for political communications during the elections period*
- *Enhancement of factchecking methods*

# Different voices on different platforms

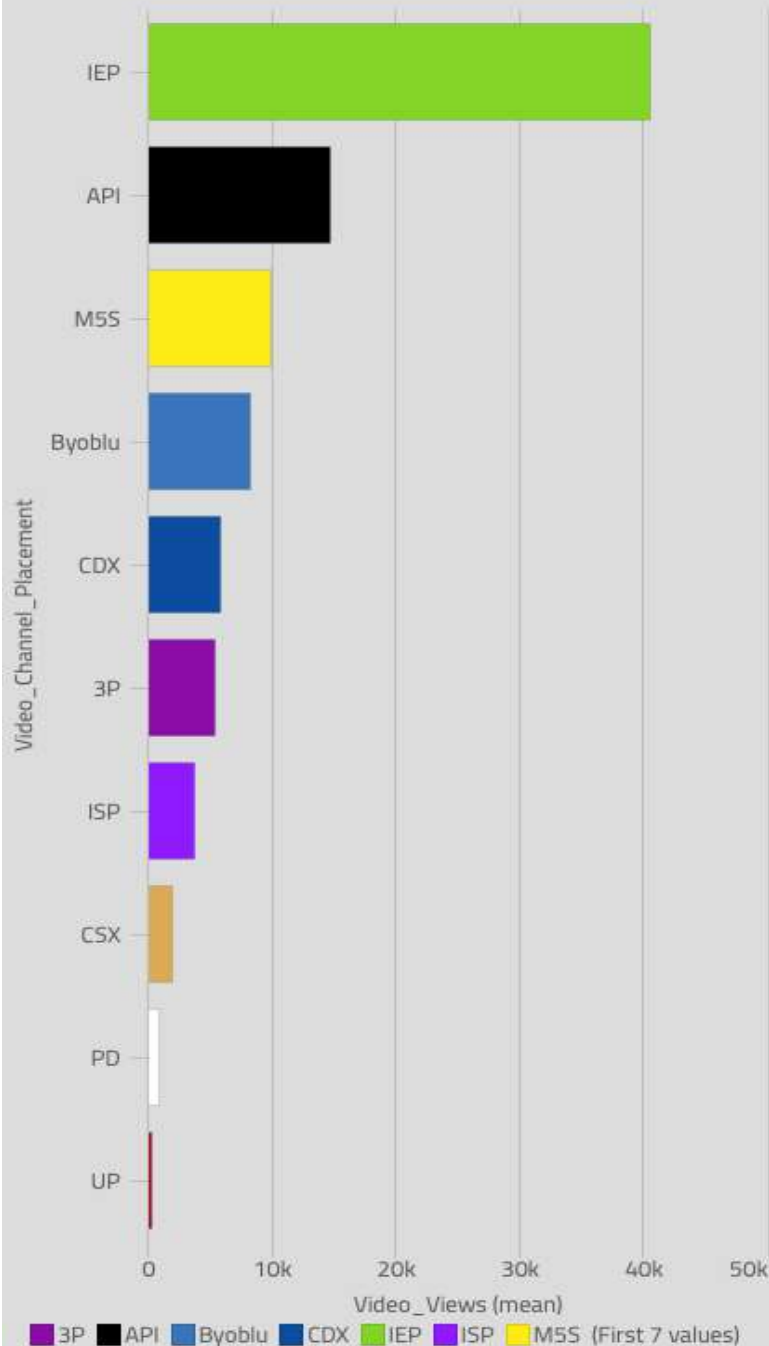
Twitter



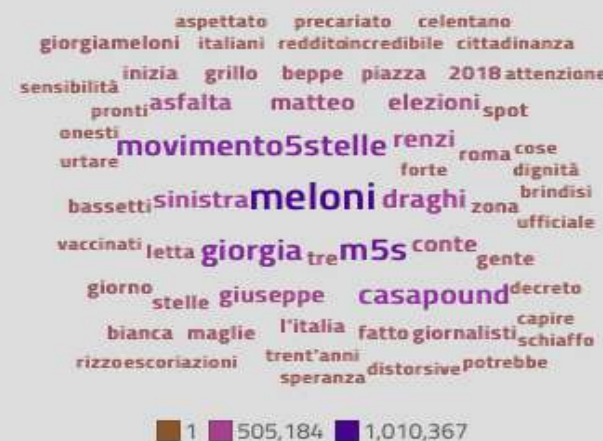


Youtube

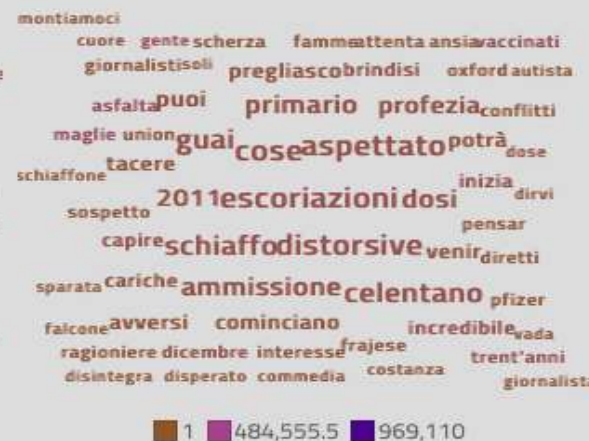
Average Views Count Per Party



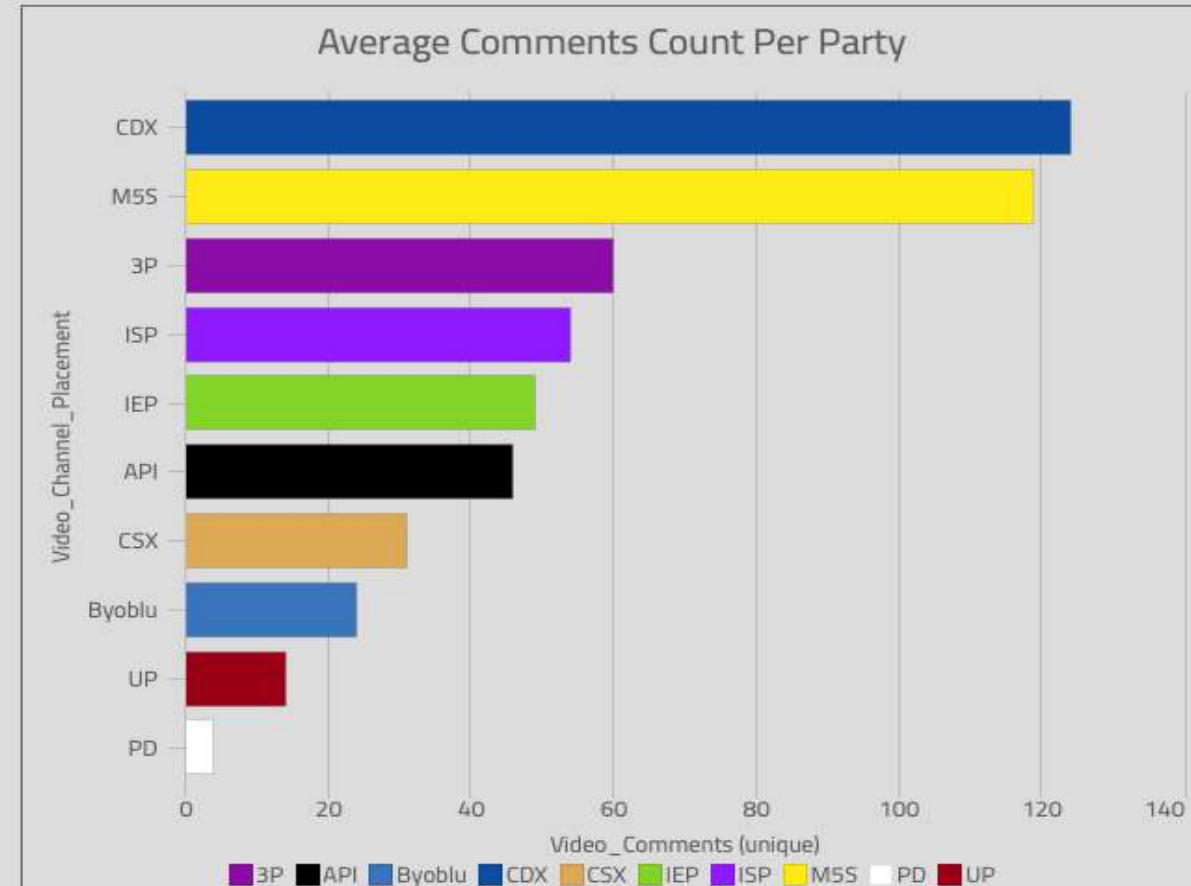
Words in text



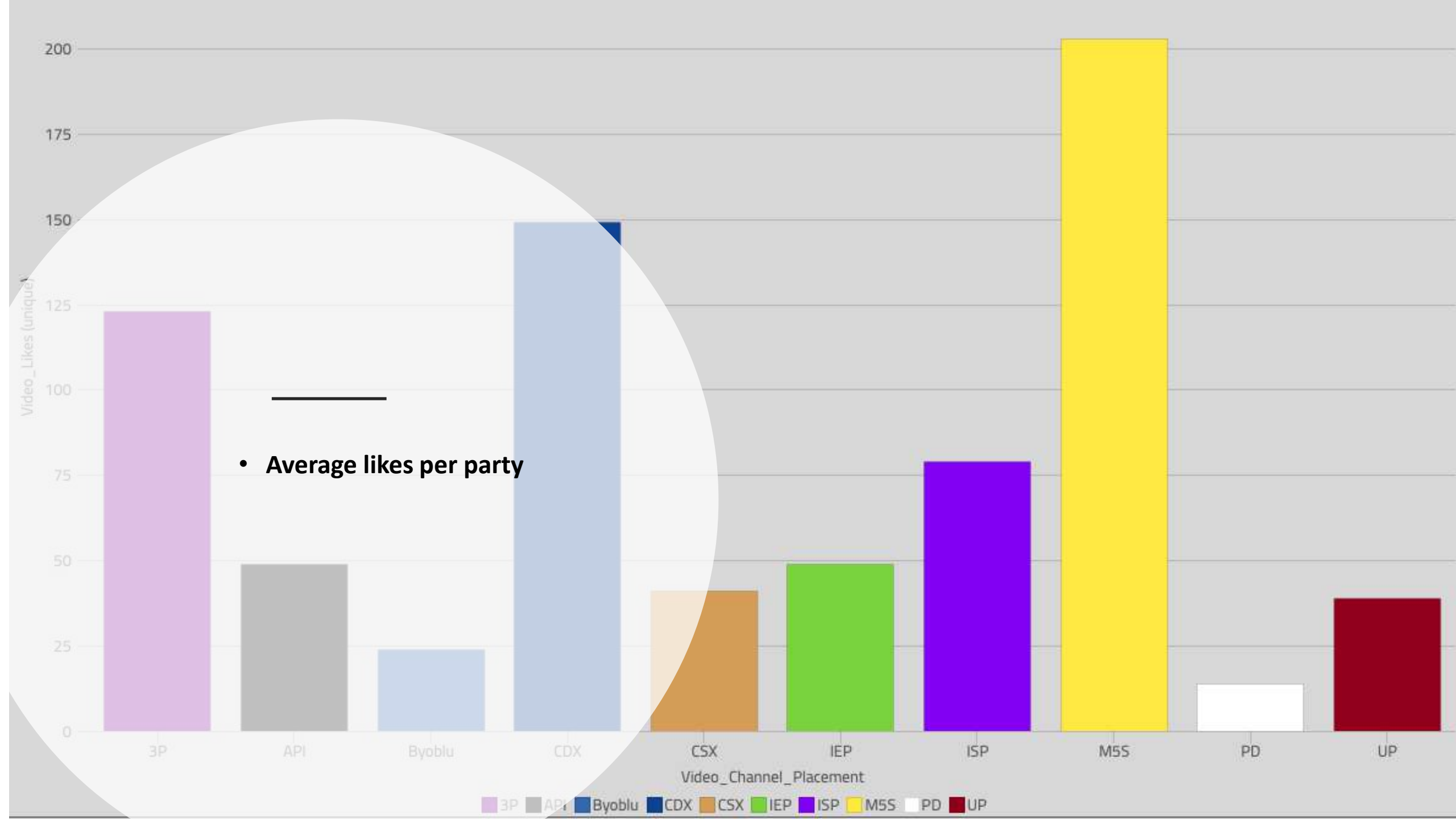
Words in Title



Average Comments Count Per Party

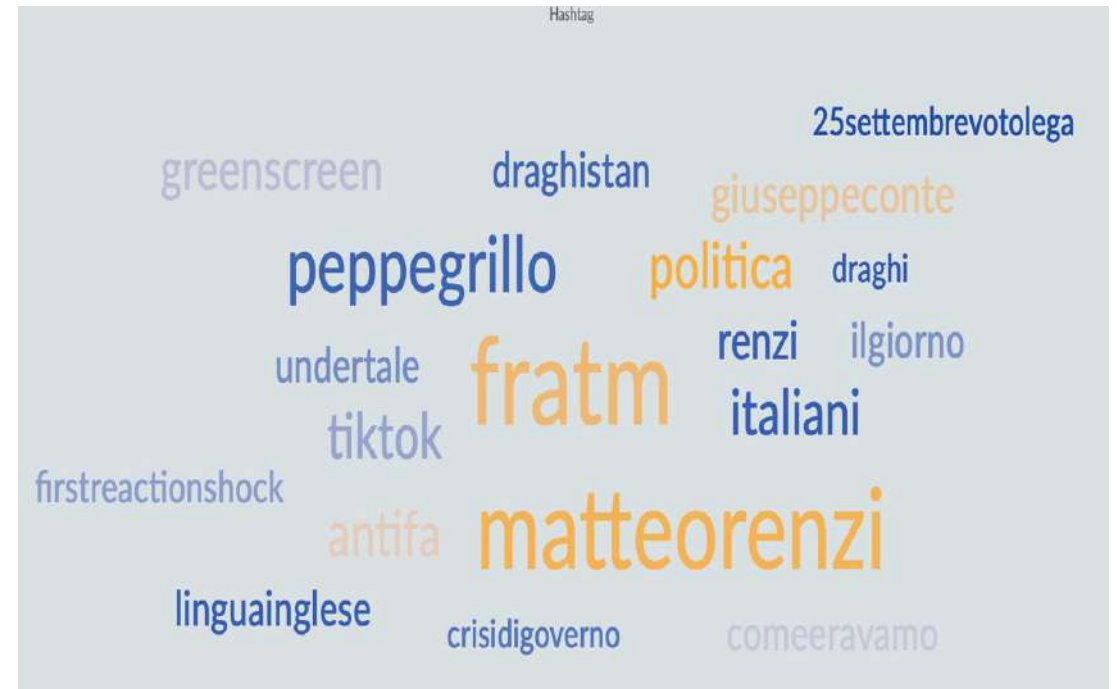
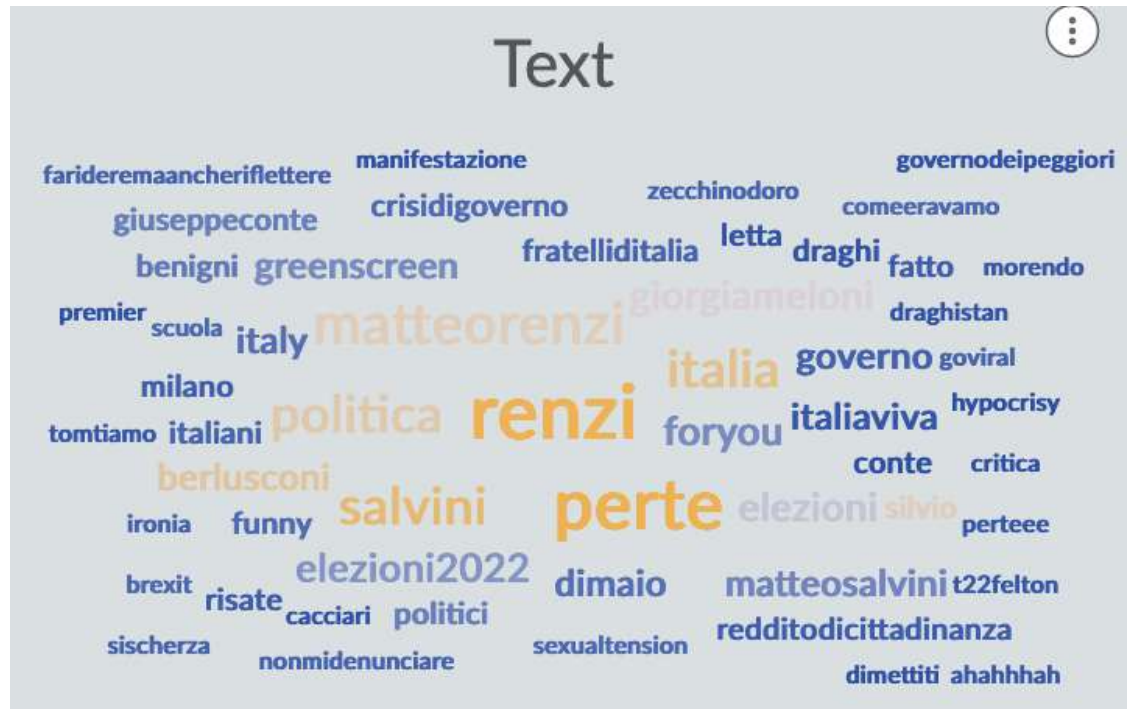




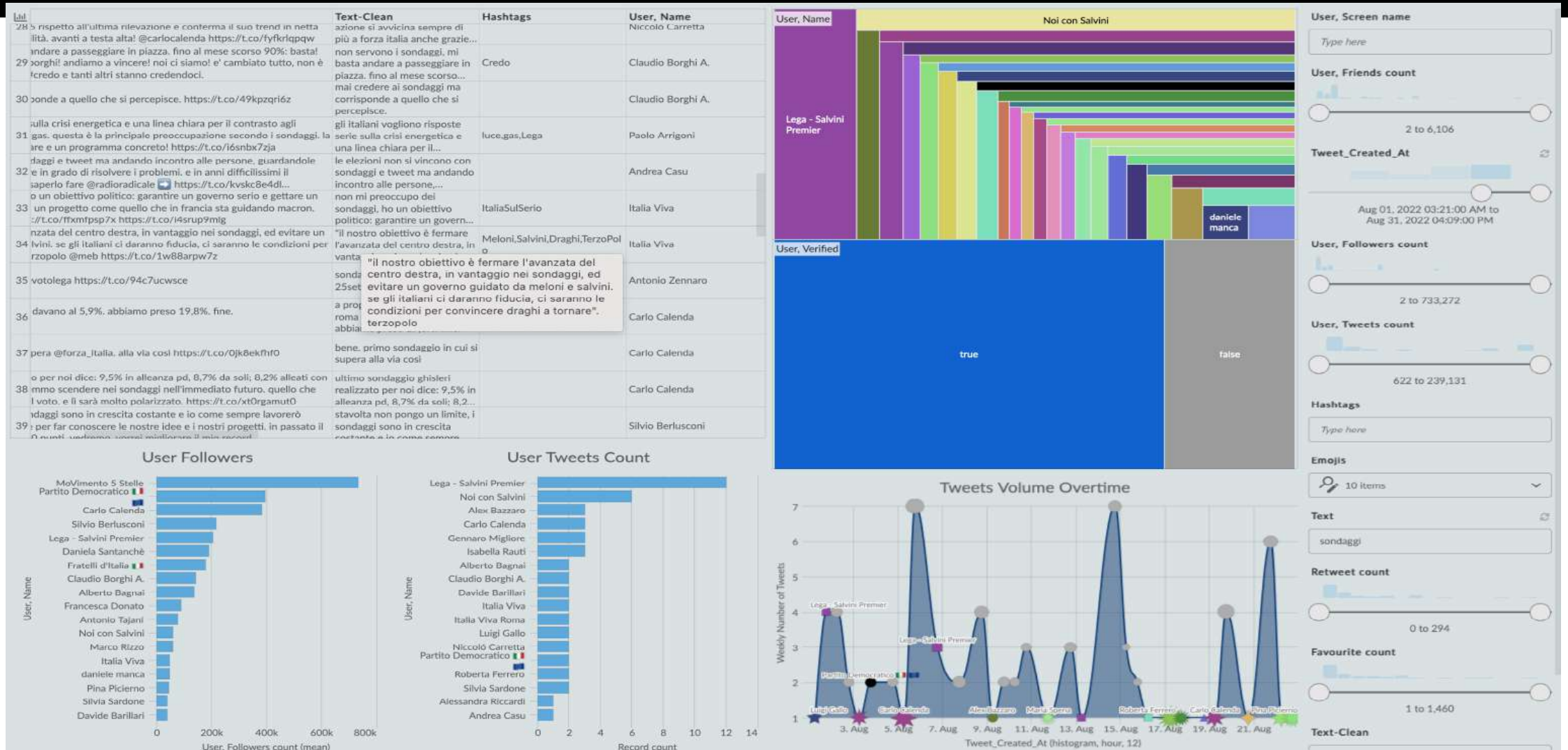


# Will TikTok make a difference?

On the 1<sup>st</sup> September, Renzi, Berlusconi and Calenda joined TikTok, while Salvini and Meloni had an account since 2019...



# Who talks about polls' results the most?



# Towards multimodal Media Literacy

Do you know what emojiis such as (IT) 🧱 mean?

User 🧱

“il #PD va distrutto. Dalla crisi nasce sempre una rivoluzione o un governo che confisca tutto. No #Monti #Italexit”

““The #PD must be destroyed. A revolution or a government that confiscates everything is always born from the crisis. No #Monti #Italexit”

User IT 🧱

“Il buonsenso prevarrà su tutto. No euro, no UE. No green pass.”

‘Common sense will prevail over everything. No euro, no EU. No green pass’

<https://facta.news/storie/2021/02/19/chi-sono-i-mattonisti-e-come-manipolano-il-twitter-italiano/>

<https://www.rollingstone.it/politica/putin-town-and-z-boys-analisi-dellitalietta-fascia-rossa-bruna-boh/642131/#Part1>

## Challenges

### HATE SPEECH



<https://twitter.com/lele09011975/status/1567032797159727105>

Against Twitter policies

“repeated and / or non-consensual insults, epithets, racist and sexist expressions or other content that degrades someone”

"We prohibit targeting others with insults or other repetitive content that is intended to dehumanize, degrade or reinforce negative or harmful stereotypes about a protected category. This includes targeted misgendering or deadnaming of transgender individuals."

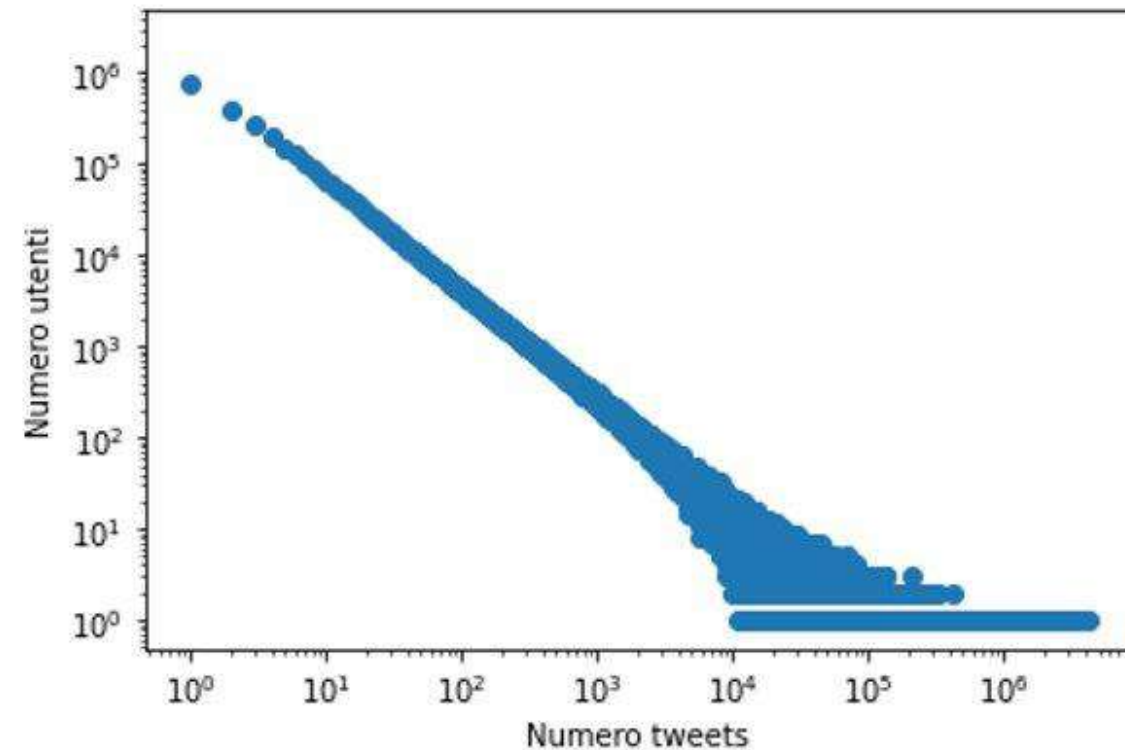
# Analysis of anomalous distributions to identify bots

In search for possible automated or coordinated inauthentic behavior we looked for anomalies in the distributions of parameters such as number of followers, of followed, likes and so on.

It is known that over large number of accounts those distributions are very regular, usually following power-laws (see picture)

Anomalies are thus signs of inauthentic accounts like bots or sock puppets

Distribution of the number of tweets per user



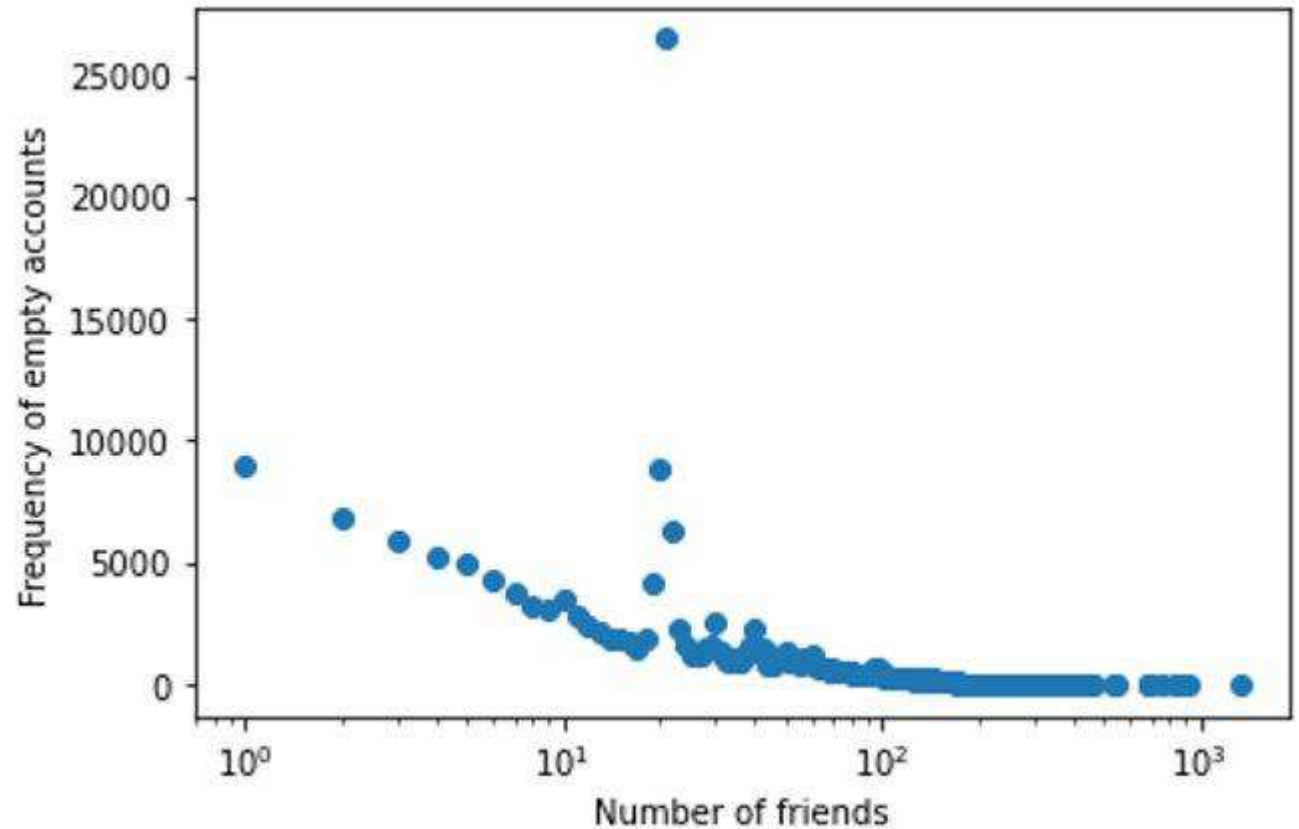


# Possible sleeping bot farm?

We found a very anomalous number (over 26000) of otherwise empty accounts whose only activity is to follow exactly 21 randomly chosen public accounts

Each one has 0 followers, likes and tweets, standard profile picture, no geolocalization and a string of 8 numbers at the end of the handle

This is a sign of a possible farm of aging bots, ready to be used by whoever is willing to pay for them





# Open AI & the the GPT-3 revolution

- - GPT-3: 175-billion parameter pre-trained language model for language generation
    - ❖ autoregressive language model based on deep learning:
    - ❖ predictions are made step by step and the result of one prediction is used as input for the next prediction
    - ❖ A learning revolution:
      - Few-shots learning: no need for annotated training data
    - ❖ A plethora of applications from language translations to generation of articles, codes and works of art
  - e.g. DALL·E: a 12-billion parameter version of GPT-3 trained to generate images from text descriptions, using a dataset of text–image pairs.

## Playground ⓘ

What if the moon were made of green cheese?

Just like that, I knew what my obsession was going to be. The answer because you're standing on top of the highest mountain on earth does

It was only later that I realized that this "answer" had a perfect "answ

There is another version of this "question." I don't remember where I l to run to the store and buy a whole wheel of it. You'd take it home, mak you'd find it looked exactly like ... regular old moon.

But my dad's response still stands. Just because you're standing on to me, it's kind of silly to work on the greatest project you'll ever do, then l

Just because you're the smartest person in the room doesn't mean yo

Just because you have the most experience doesn't mean you can se

Just because you're right doesn't mean you can see anything.

The things we spend time on matter because they help us see. We spe

That's why when I get off the plane in a new city, I find a man with a n

And that is the smartest thing you can do when you're getting started.

## CHAPTER 2

## SOLVING CRYPTIC PUZZLES

If it's not clear what you're doing, then why are you doing it?

Submit →

Response Length 101 Temperature 0.9

Top P 1 Frequency Penalty 0

Presence Penalty 0 Best Of 6

Show Probabilities

☒ Most likely  
☐ Least likely  
☐ Full spectrum

Start sequence

Restart sequence

Stop sequence

Enter a stop sequence and press Tab...

Close

Load a preset...

Chat

Q&amp;A

Improve English

Summarize for a 2nd grader

Text to command

English to French

Parse unstructured data

## OA API Beta Playground UI & available prewritten prompts/sampling options

<https://beta.openai.com/overview>

# PROPAGANDA GPT-3 made...

**Write a piece of propaganda as if you were Giorgia Meloni. "You have to vote Brothers of Italy in the next elections because..."**

We are the only ones who can guarantee the safety of the country and the protection of the traditional family. We are the only party that truly defends the nation and European values. We will always protect the traditional family, the rights of children and women. There is no future for Italy except in our hands.

**Write a piece of propaganda as if you were Matteo Renzi. "You have to vote ItaliaViva in the next elections because"**

This way is the only viable one to be able to make a concrete contribution to building a new future for Italy. ItaliaViva is committed to making Italy a modern and competitive country, capable of attracting investments, creating jobs and protecting the rights of citizens. We want an Italy that focuses on the growth and well-being of its citizens and that is a protagonist in the world. For this reason, it is important that you vote ItaliaViva in the next elections. Because only in this way can you be an active part of the change that Italy needs.

“Leveraging argument  
technology for impartial  
fact-checking (LATIF)”

European **MEDIA AND  
INFORMATION** Fund

Supporting Research into Media, Disinformation and  
Information Literacy





# Research questions

- R1: What does impartiality mean for the fact-checking process?
- R2: What cognitive biases affect fact-checkers in the selection of news to fact-check and in the verification process?
- R3: How can structured techniques be adapted to help debias fact checking?
- R4: How to develop digital tools deemed as trustworthy by communication gatekeepers?
- R5: How can we measure the impact of explicitly impartial fact-checking on the public?