WeVerify

Wider and Enhanced Verification for You

© factcheck.afp.com

#SEMIFORM2020
online workshop, 02/11/2020

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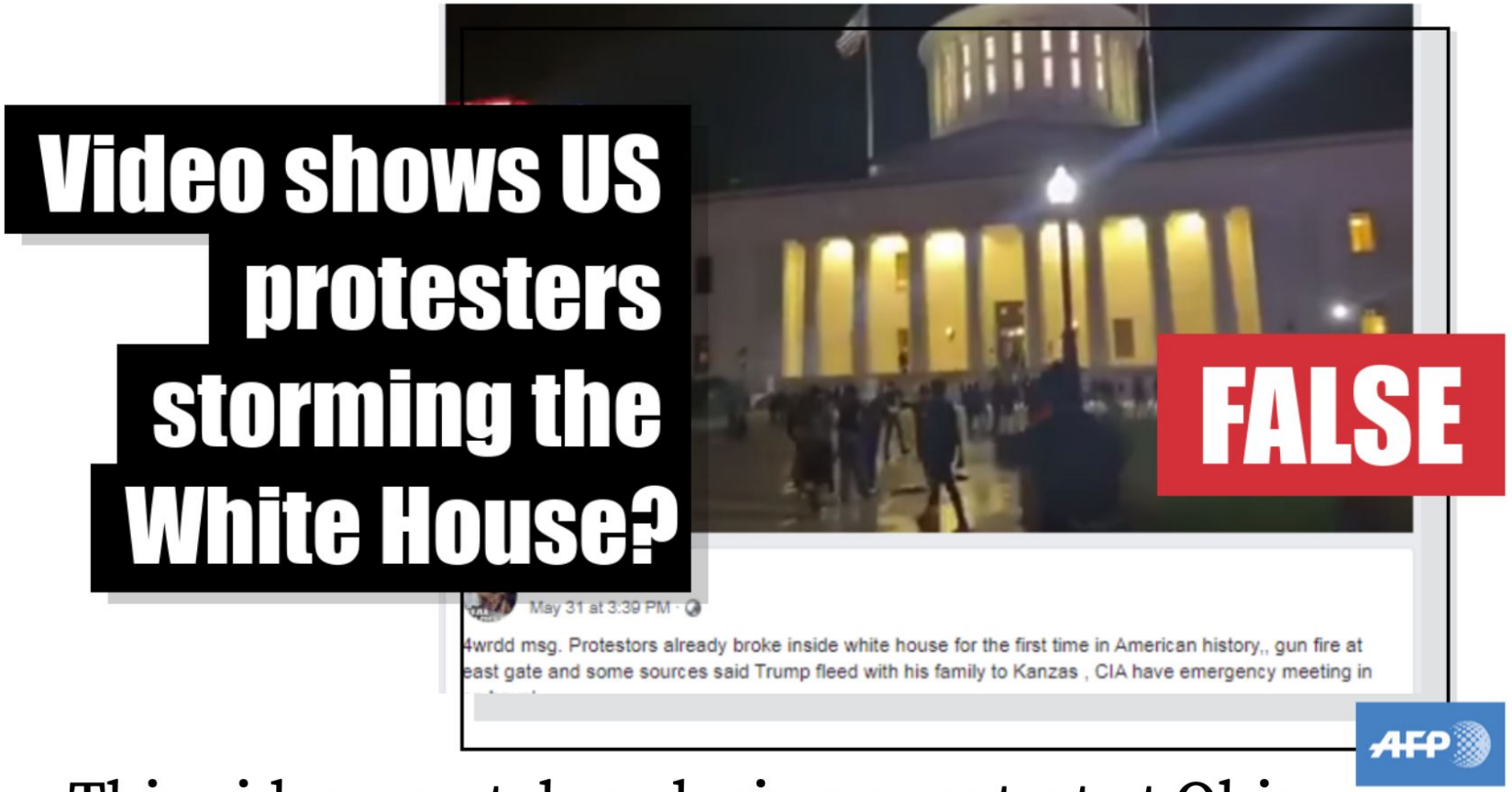
carolscarton

WeVerify project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825297

WHY WEVERIFY?



This video was taken during a protest at Ohio Statehouse

Credit: Zlatina Marinova (Ontotext)

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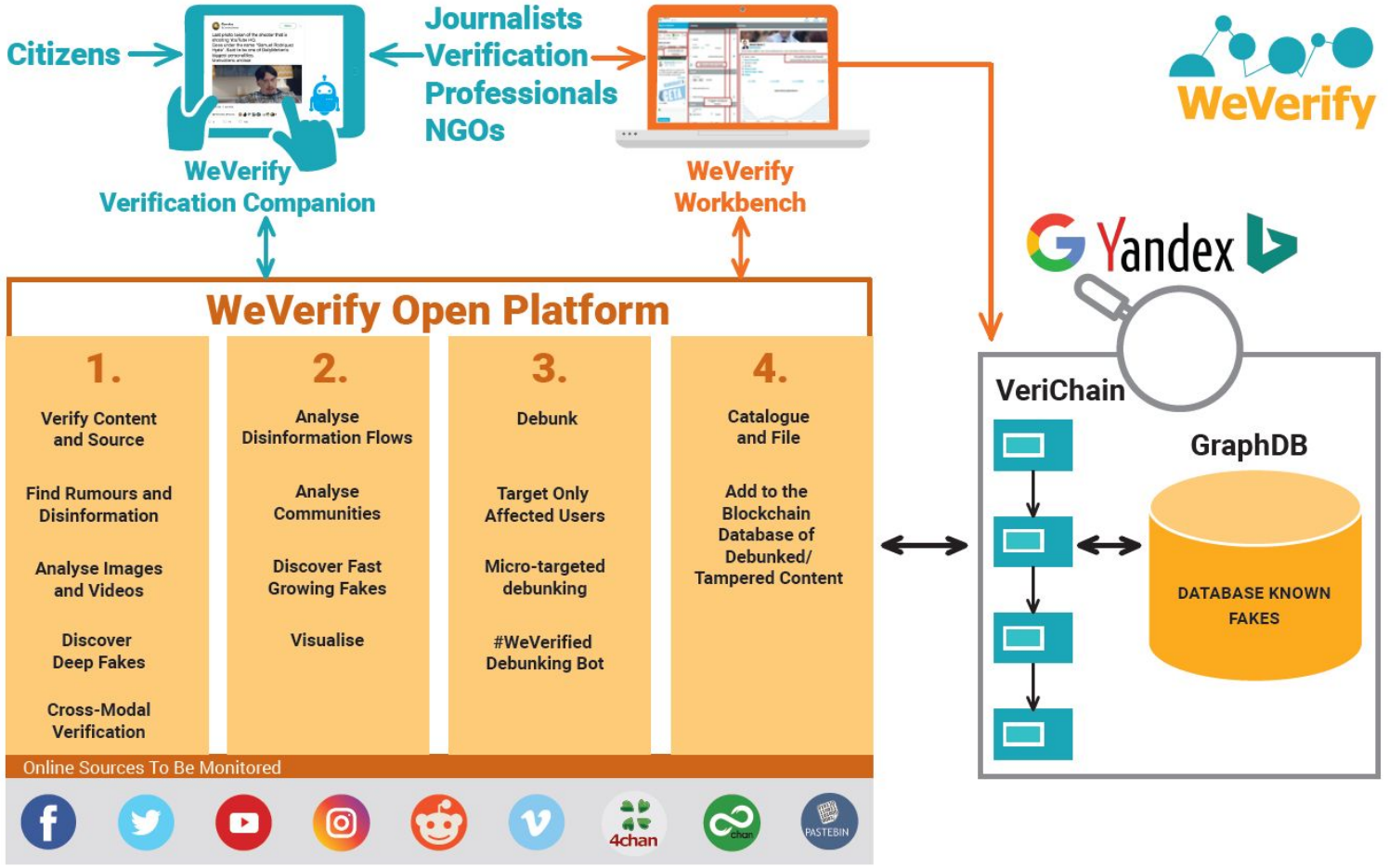
WeVerify Architecture

https://weverify.eu/



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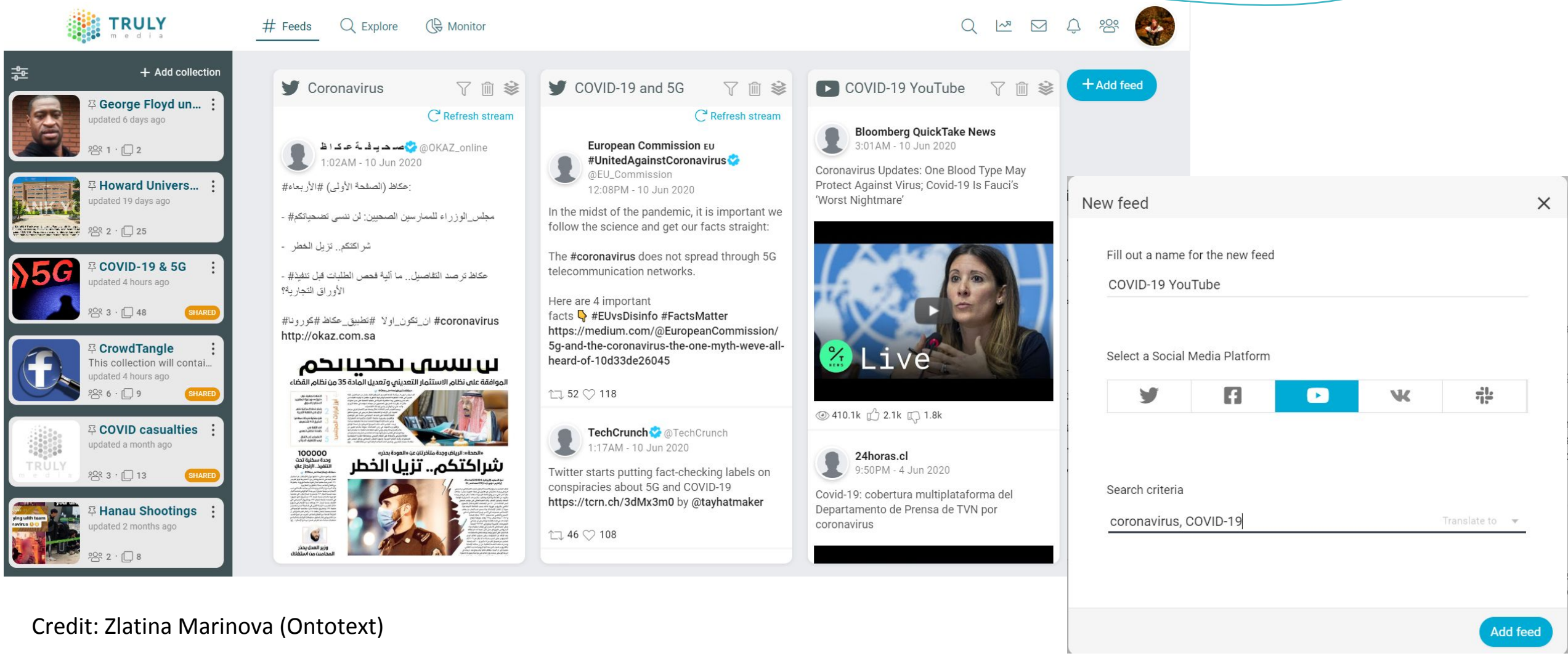
TRULY MEDIA: COLLABORATIVE CROSS-MODAL VERIFICATION WORKBENCH



Credit: Zlatina Marinova (Ontotext)

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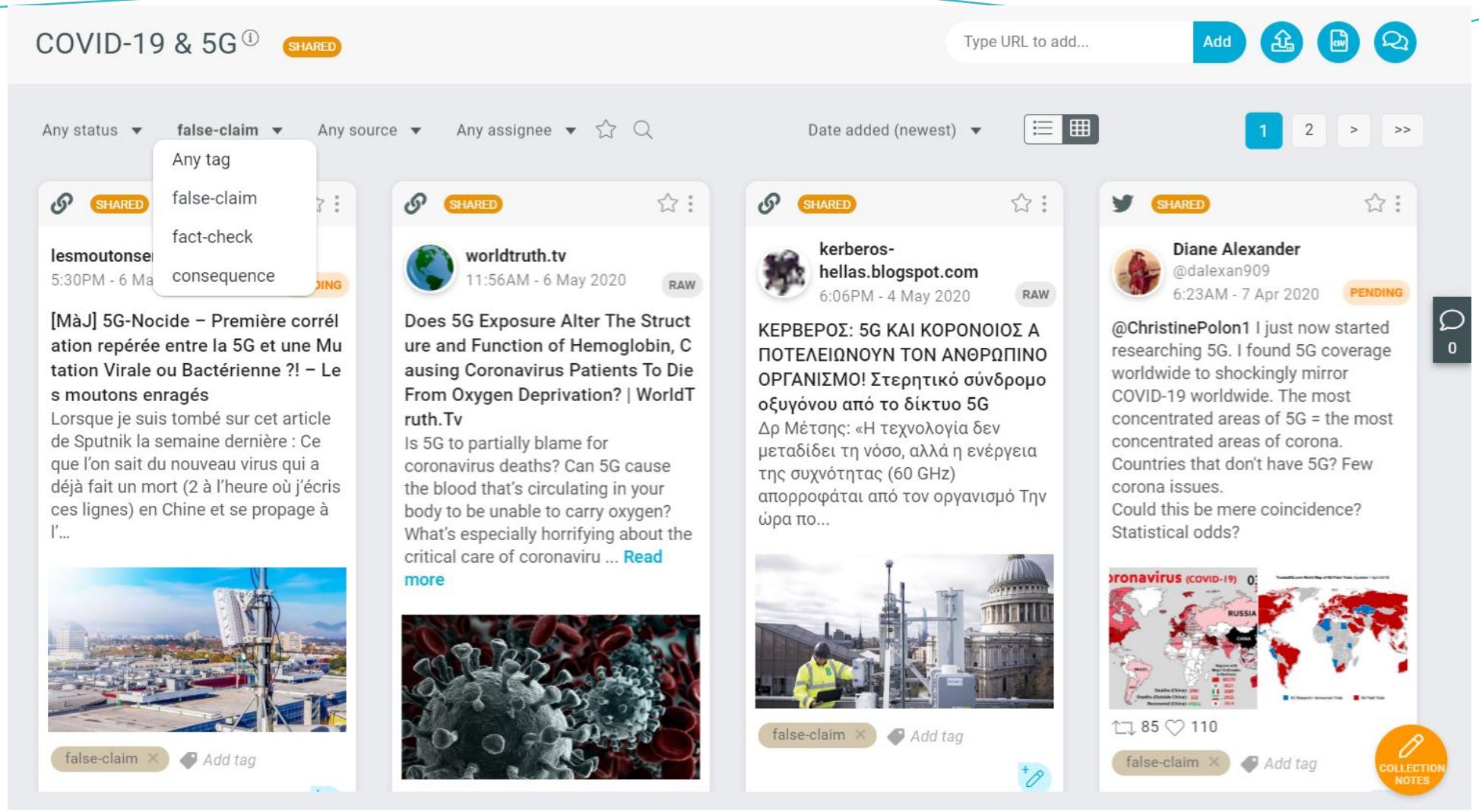

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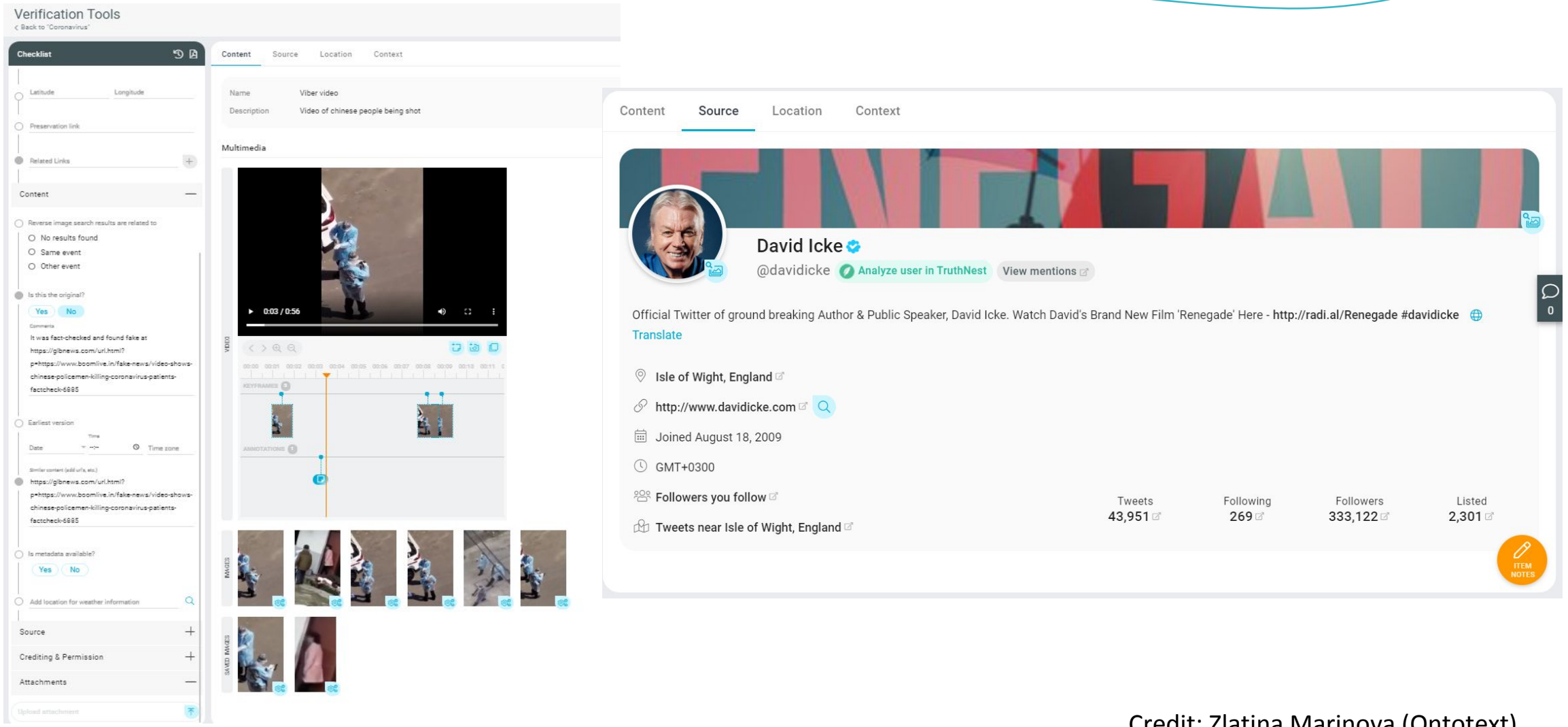

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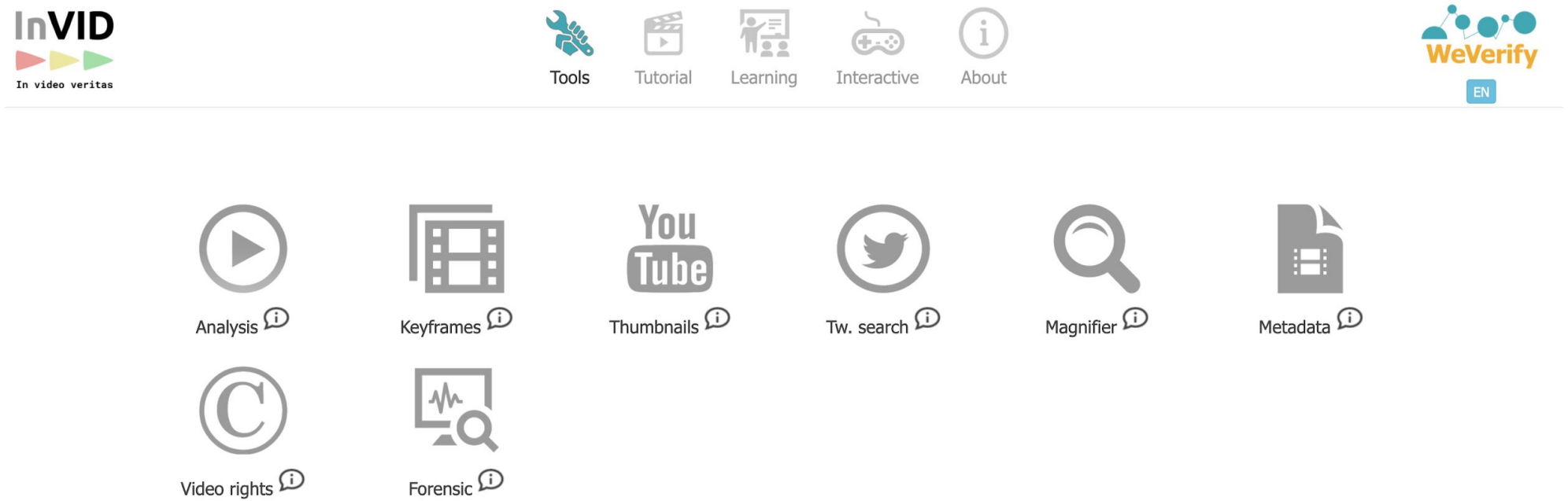
VERIFICATION BROWSER PLUGIN



Available for Chrome, Firefox and Opera

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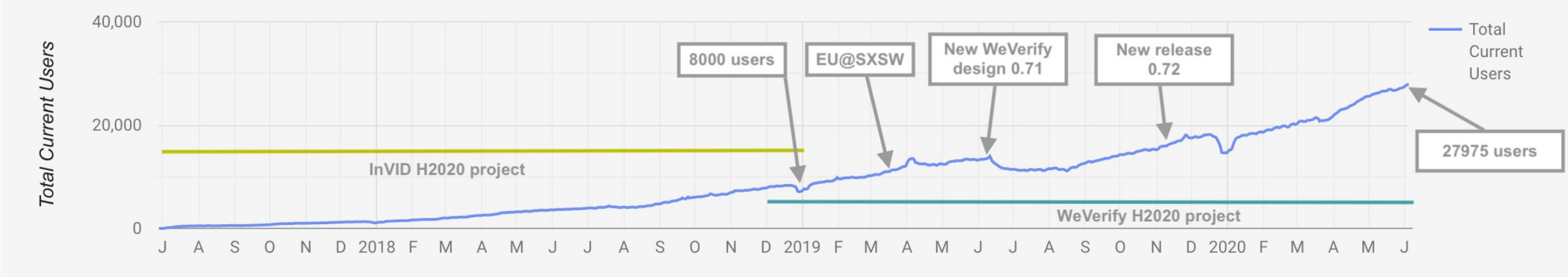
VERIFICATION BROWSER PLUGIN

USAGE HAS TRIPLED WITH NEW WEVERIFY RELEASES



Graphic made from Google Chrome web store statistics (June 7, 2020)

Credit: Zlatina Marinova (Ontotext)

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VERIFICATION BROWSER PLUGIN

USERS :

AND MANY MORE ...

Credit: Zlatina Marinova (Ontotext)

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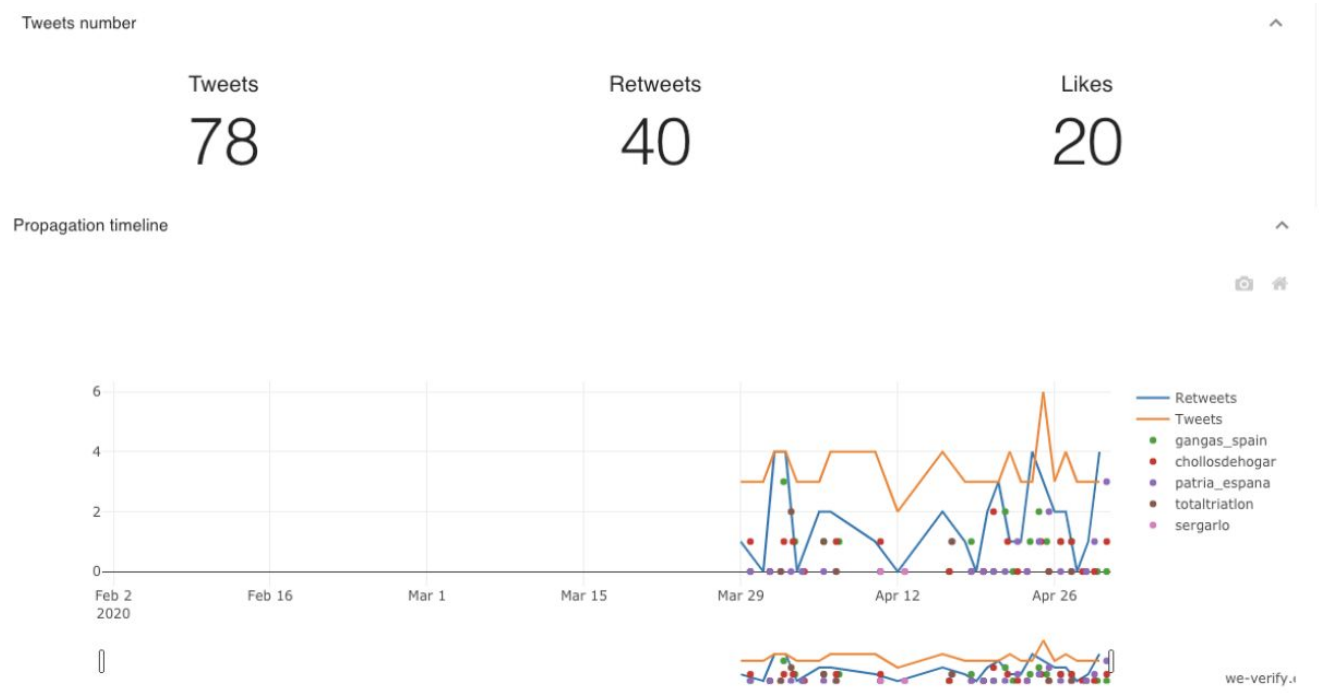
VISUAL EXPLORATION OF DISINFORMATION NETWORKS



Credit: Zlatina Marinova (Ontotext)

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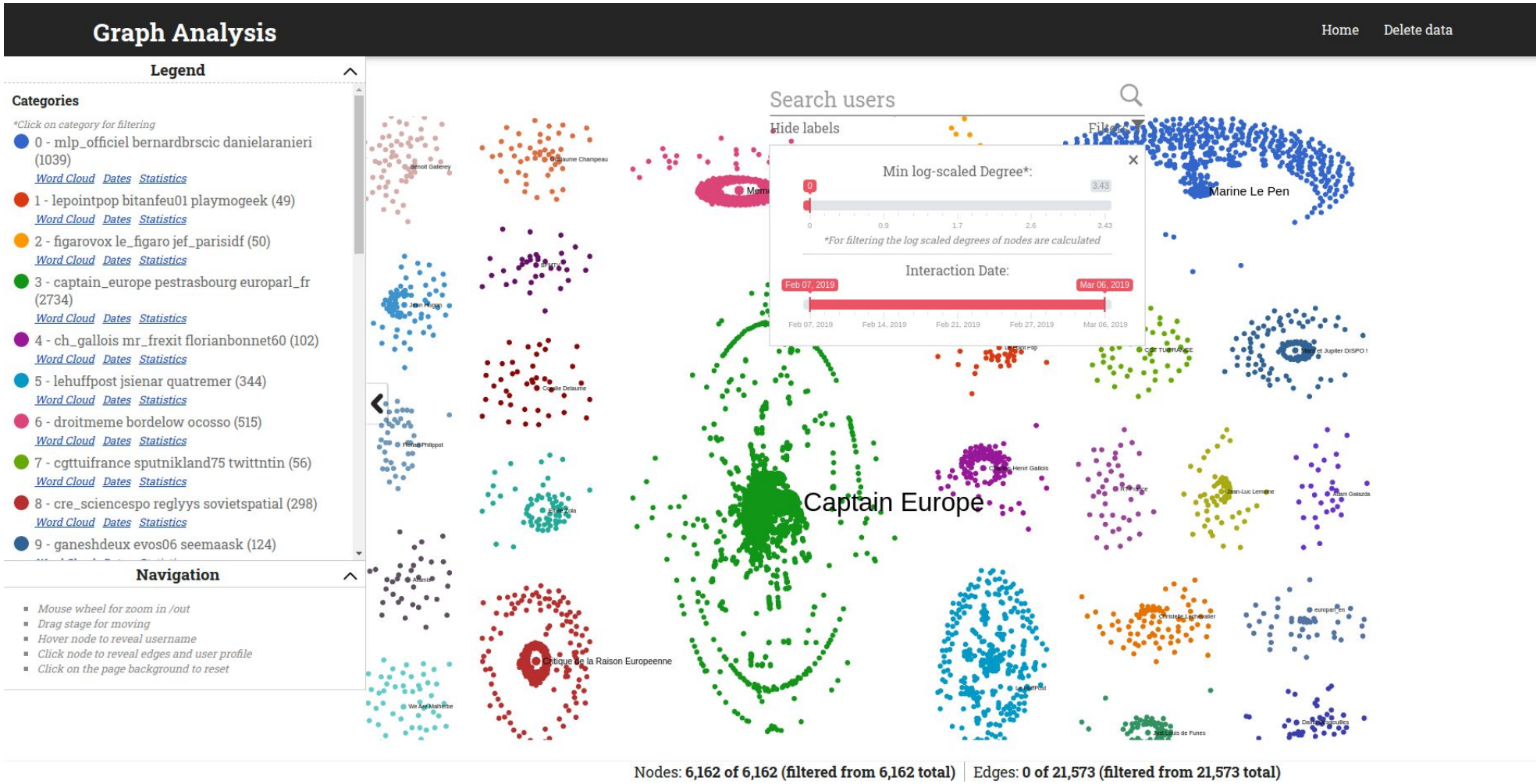

Credit: Zlatina Marinova (Ontotext)

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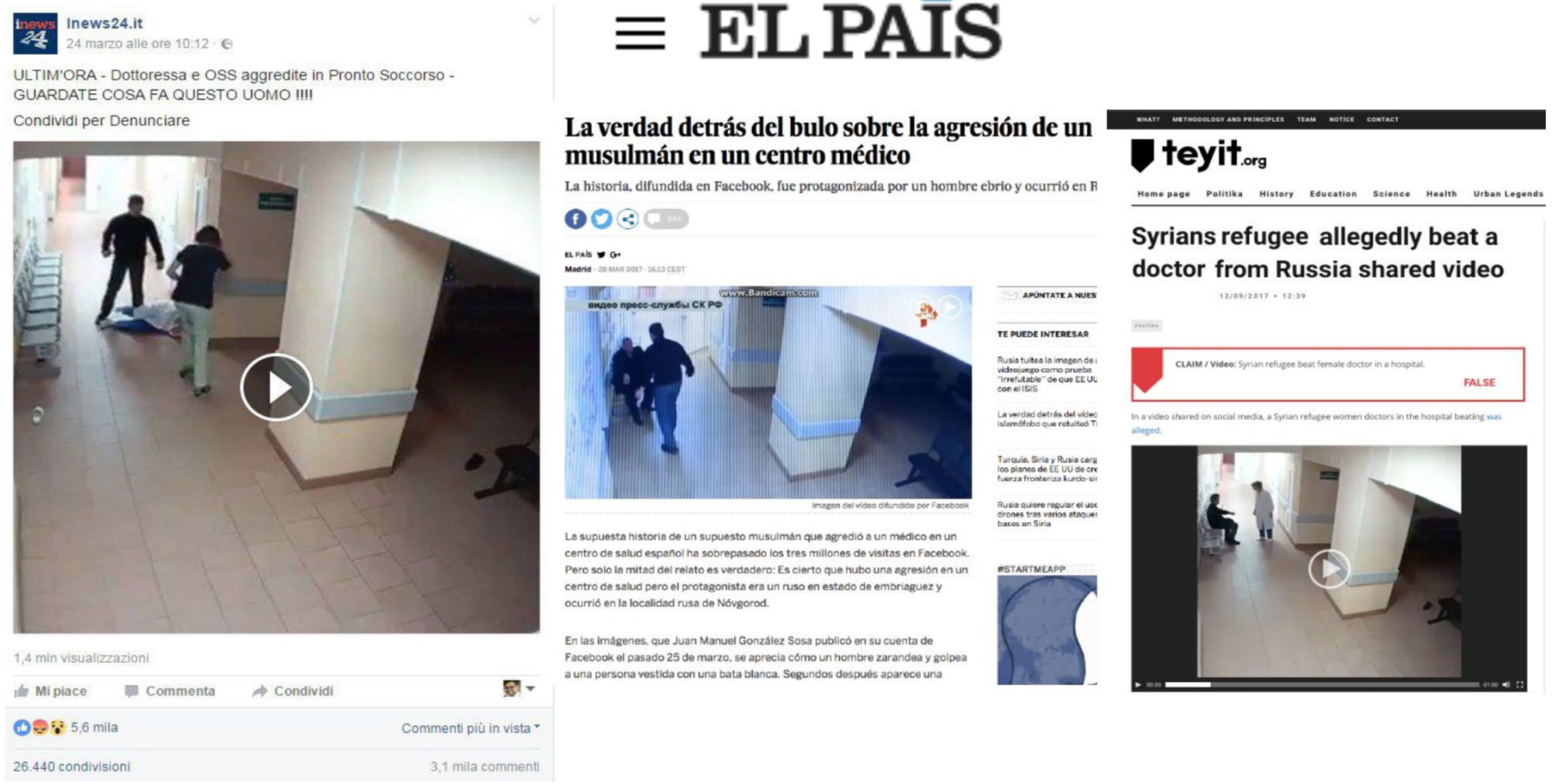
BLOCKCHAIN DATABASE OF KNOWN FAKES



Credit: Denis Teyssou (AFP)

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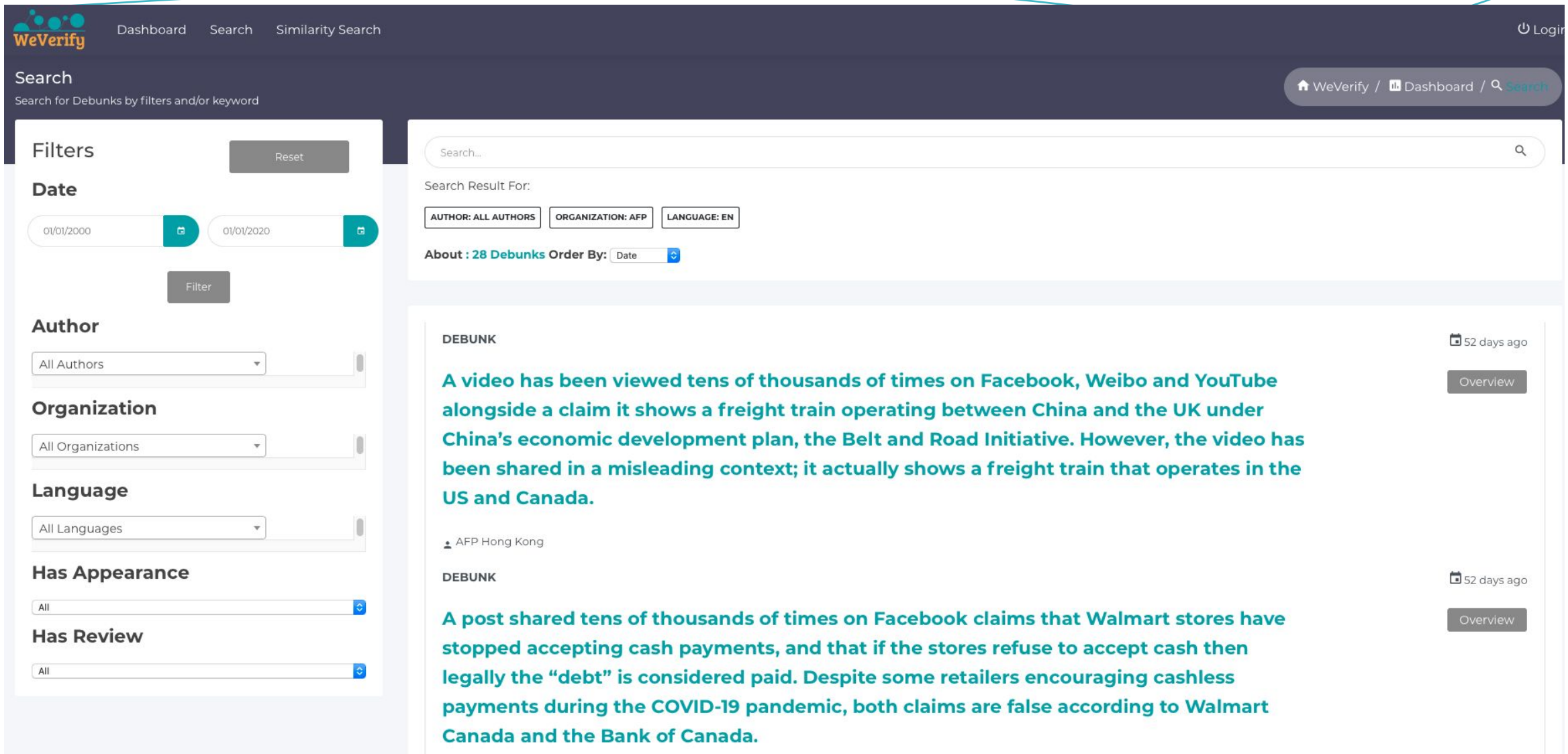

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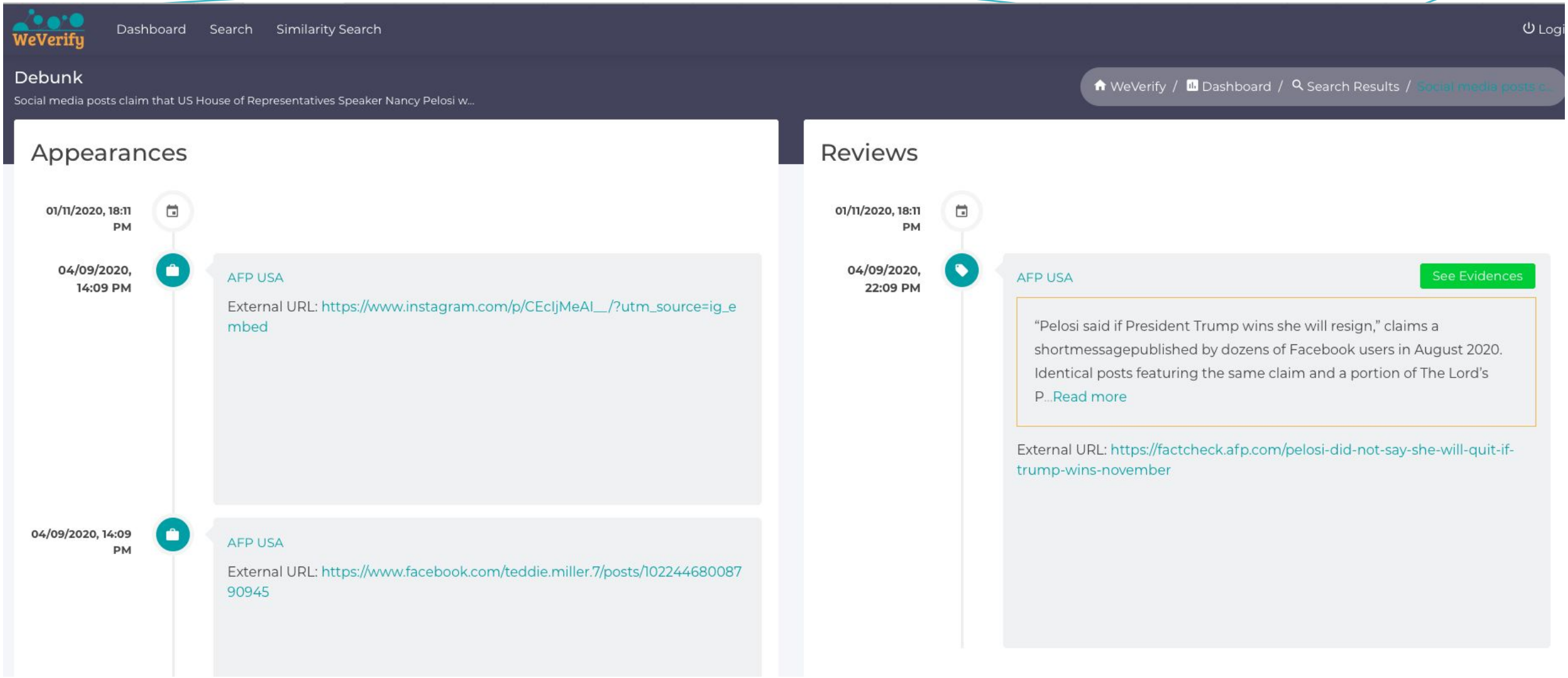

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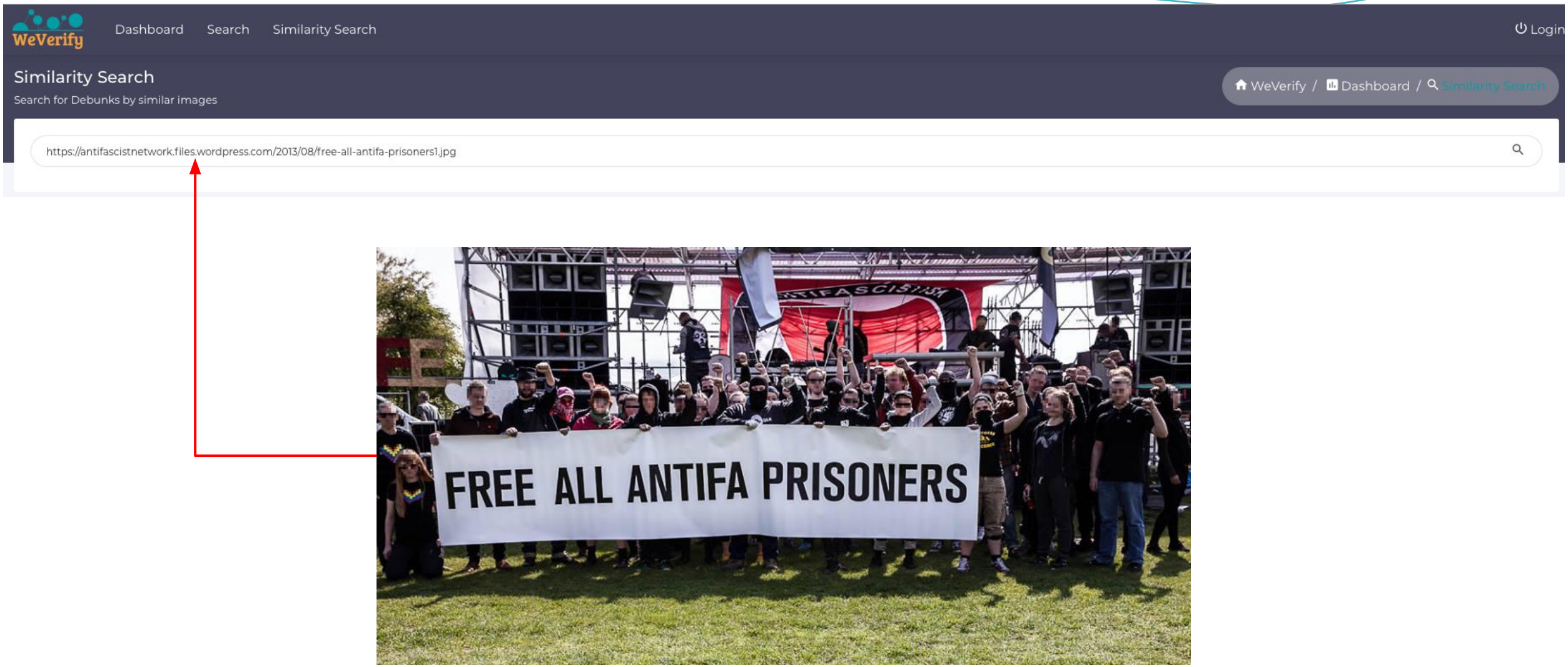

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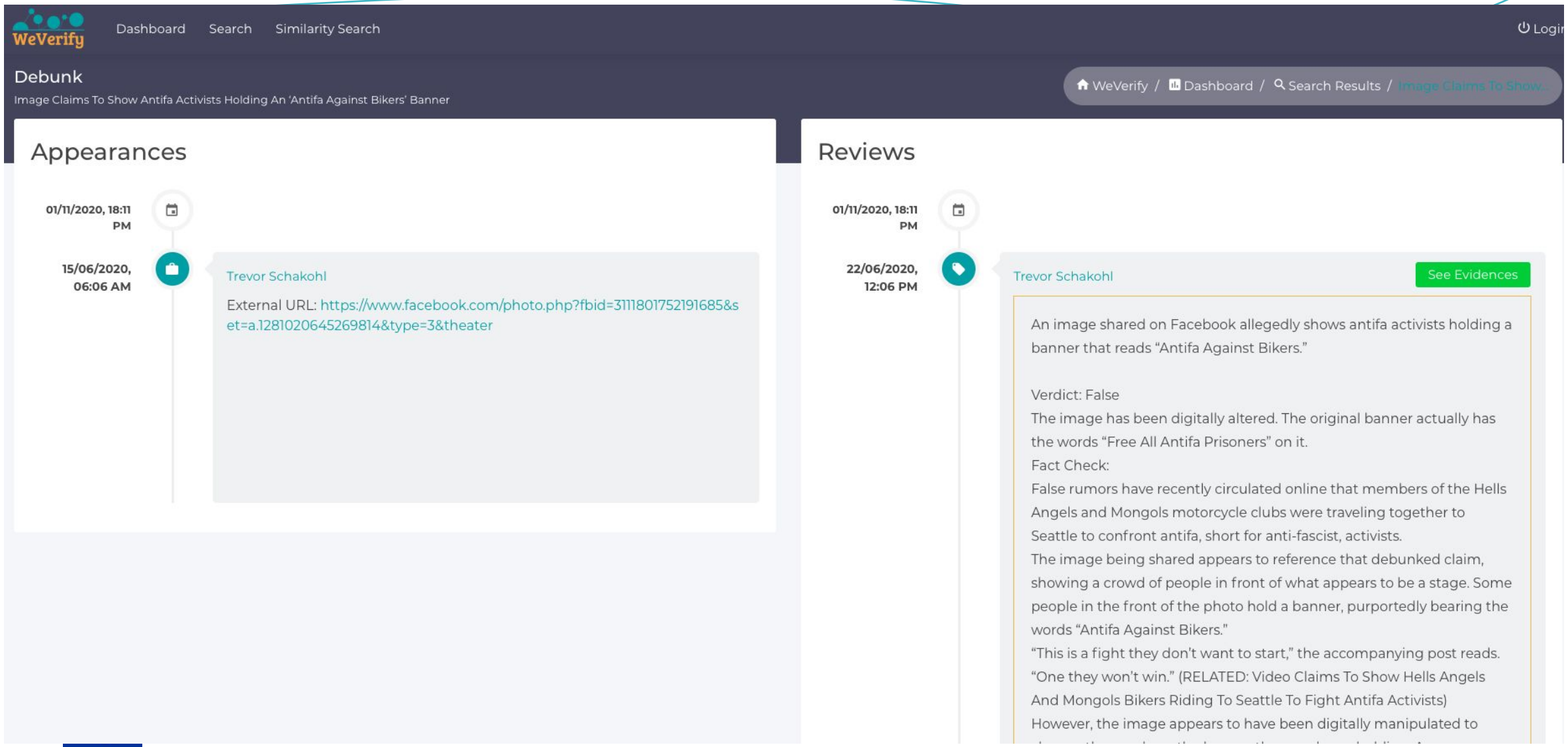

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BLOCKCHAIN DATABASE OF KNOWN FAKES

WeVerify Dashboard Search Similarity Sear

Debunk

Image Claims To Show Antifa Activists Holding An 'Antifa Agains

Appearances

01/11/2020, 18:11 PM

15/06/2020, 06:06 AM

Trevor Schakohl

External URL: https:/ et=a.128102064526 98

FACT CHECK: IMAGE CLAIMS TO SHOW ANTIFA ACTIVISTS HOLDING AN 'ANTIFA AGAINST BIKERS' BANNER

12:58 PM 06/22/2020 **Trevor Schakohl | Fact Check Reporter**

An image shared on Facebook allegedly shows antifa activists holding a banner that reads "Antifa Against Bikers."

This is a fight they don't want to start. One they won't win.

7 1 7

Verdict: False

The image has been digitally altered. The original banner actually has the words "Free All Antifa Prisoners" on it.

Login

Dashboard / Search Results / Image Claims To Show...

See Evidences

on Facebook allegedly shows antifa activists holding a "Antifa Against Bikers."

en digitally altered. The original banner actually has l Antifa Prisoners" on it.

recently circulated online that members of the Hells ols motorcycle clubs were traveling together to antifa, short for anti-fascist, activists. hared appears to reference that debunked claim, f people in front of what appears to be a stage. Some of the photo hold a banner, purportedly bearing the nst Bikers." don't want to start," the accompanying post reads. in." (RELATED: Video Claims To Show Hells Angels rs Riding To Seattle To Fight Antifa Activists) e appears to have been digitally manipulated to

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VERACITY AND STANCE ANALYSIS OF ONLINE CONVERSATIONS

Results

Tweet

User profile

User	Emmanuel Macron (EmmanuelMacron)
User verified	Verified
Location	France
Profile Description	Président de la République française.
Account Created	20/10/2013 19:35:28
Account Age (days)	2209 days
Followers	4274218
Friends	712
Number of tweets	8538
Average tweet per day	3.865

External Links

In Tweet

https://pbs.twimg.com/media/ECmM_hbXsAEq21w.jpg

In Replies

https://earthobservatory.nasa.gov/images/145464/fires-in-brazil

https://www.alamy.com/stock-photo-amazon-rain-forest-afire-30695050.html

https://pbs.twimg.com/media/ECs9BXAVUAEFLV3.png

https://pbs.twimg.com/media/ECs9BXUUEAAKyW_.png

https://pbs.twimg.com/media/ECs53EwWwAA840e.jpg

https://tweetveracity.gate.ac.uk/

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VERACITY AND STANCE ANALYSIS OF ONLINE CONVERSATIONS

Caneta Desesquerdizadora
@Desesquerdizada

Replying to @EmmanuelMacron
FAKE NEWS.
1. This picture was taken by Loren McIntyre, an American photojournalist that DIED IN 2003. It's for sale here: alamy.com/stock-photo-am…

2. The real lungs of the World are algae. Up to 70% of Earth's oxygen is produced by them.

Stock Photo - Amazon rain forest afire
Download this stock image: Amazon rain forest afire. - BNX7RP from Alamy's library of millions of high resolution stock photos, illustrations
alamy.com

♡ 16.3K 10:52 PM - Aug 22, 2019

3,380 people are talking about this

deny 0 0 0 0

Ana Paula Henkel
@AnaPaulaVolei

Replying to @EmmanuelMacron
Mr Macron, the Amazon does not produce 20% of the planet's oxigen. Secondly, the photo you used is very old from years ago, that's called 'fake news' these days and does NOT help the Amazon. Last but not least, you have an approval rating of 22% in France, fix your house first.

♡ 6,996 11:07 PM - Aug 23, 2019

1,521 people are talking about this

deny 0 0 0 0

Adele & Art
@Adele47018578

Replying to @EmmanuelMacron @bynsny
so sad hear that , 😢😢ب
💚💚💚💚💚💚💚💚💚

♡ 2 11:04 AM - Aug 25, 2019

See Adele & Art's other Tweets

support 1 0

Kevin Todd
@KevinTo95845970

Replying to @Adele47018578 and 2 others
Happy Sunday Adele💙💙💙🧡🧡🧡💙💙💙🧡🧡

♡ 1 11:10 AM - Aug 25, 2019

See Kevin Todd's other Tweets

comment 0 1 2 0

Chrisdivefr
@chrisdivefr

Replying to @YesThatJack @EmmanuelMacron
We are. economist.com/europe/2019/07…

Why France's forests are getting bigger
Between 1990 and 2015, EU countries reforested an area the size of Portugal
economist.com

♡ 366 8:24 PM - Aug 22, 2019

64 people are talking about this

support 0 0 0 0

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Image/Meme OCR

Output

```
EQUALIZATION REFORM COULD SAVE ALBERTA
EACH YEAR FOR
JOBS, TAX CUTS, HEALTHCARE &
EDUCATION FUNDING
BUT & WANT TO SPEND OUR MONEY TO
BUY VOTES IN QUEBEC
THE ONLY PARTY THAT WILL
P PG} REFORM EQUALIZATION
www.peoplespartyofcanada.ca
```

Source

Uploaded file: EGk5SMlU4AAaiKg.jpg

Original image:

Preprocessed image:

http://demos.gate.ac.uk/weverify/ocr/

COVID-19 CLASSIFIER

➢ **Classification of misinformation into 10 different categories (Brennen et al., 2020):**

- **Public authority**
- **Community spread and impact**
- **Medical advice, self-treatments and virus effects**
- **Prominent actors**
- **Conspiracy theory**
- **Virus transmission**
- **Virus origins and properties**
- **Public preparedness**
- **Vaccines, medical treatment, and tests**
- **Cannot determine**

Scott Brennen, Felix Simon, Philip Howard, and Rasmus Kleis Nielsen. 2020. Types, sources, and claims of covid-19 misinformation. Technical report, Reuters Institute

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COVID-19 CLASSIFIER

- **IFCN dataset:**
  - **Claim → rephrased by a fact-checker**
  - **Explanation → why a claim is false**
  - **Source link → page of the debunk**
  - **Date → of publication in the IFCN Poynter website**
  - **Type of media**
  - **Original website**

https://www.poynter.org/ifcn-covid-19-misinformation/

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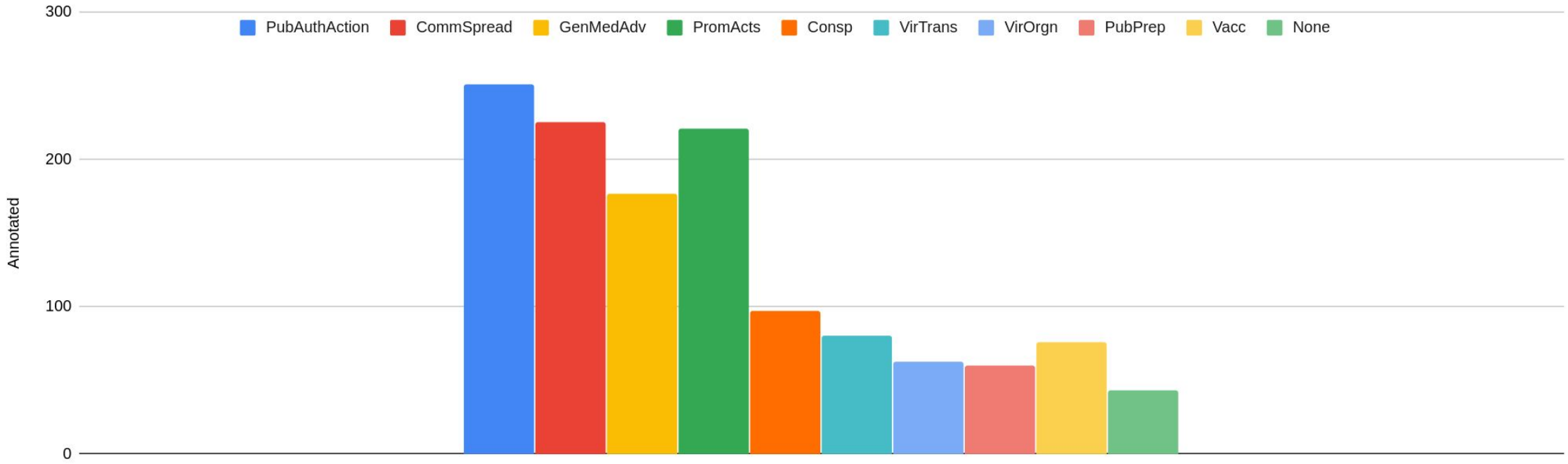
COVID-19 CLASSIFIER

- **Data annotation:**
  - **27 volunteers (English claims only)**
  - **Assign most relevant class + a confidence score**
  - **After removing low quality annotations → 1,293 debunks annotated (Cohen's *k*= 0.70)**



Credit: Xingyi Song (Sheffield)

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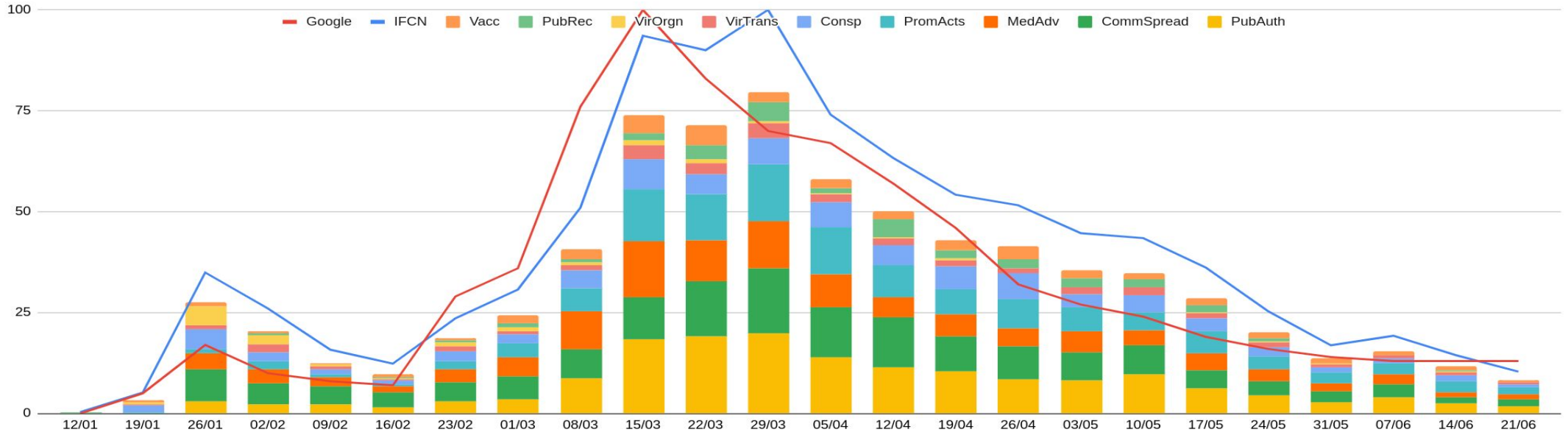
COVID-19 CLASSIFIER

Large-scale analysis:

- Start with **Conspiracy theories**
- Then **Community spread** and **Virus origin** in mid February
- **Public authority action** dominate in March
- **Community Spread** and **Prominent actors** are top topics in the later period



Credit: Xingyi Song (Sheffield)

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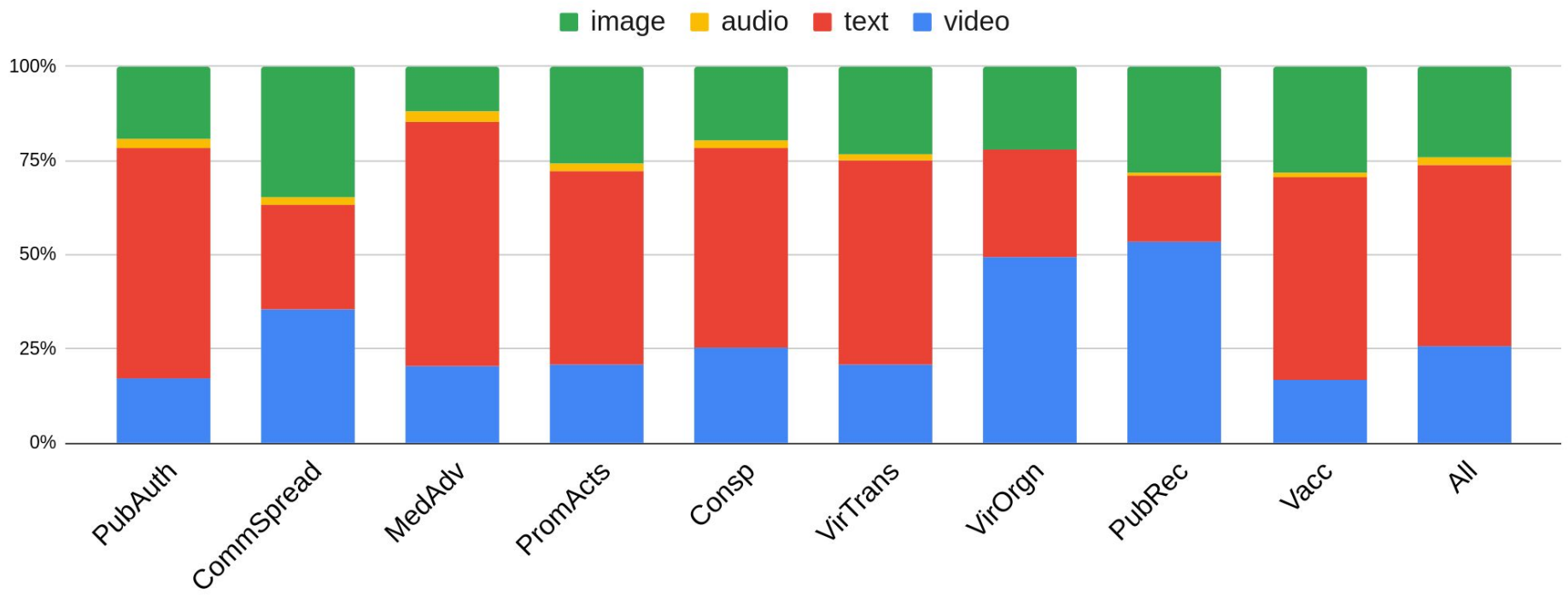
COVID-19 CLASSIFIER

- Large-scale analysis:
  - 50% text
  - ~ 50% of Virus origin and Public preparedness → videos



Credit: Xingyi Song (Sheffield)

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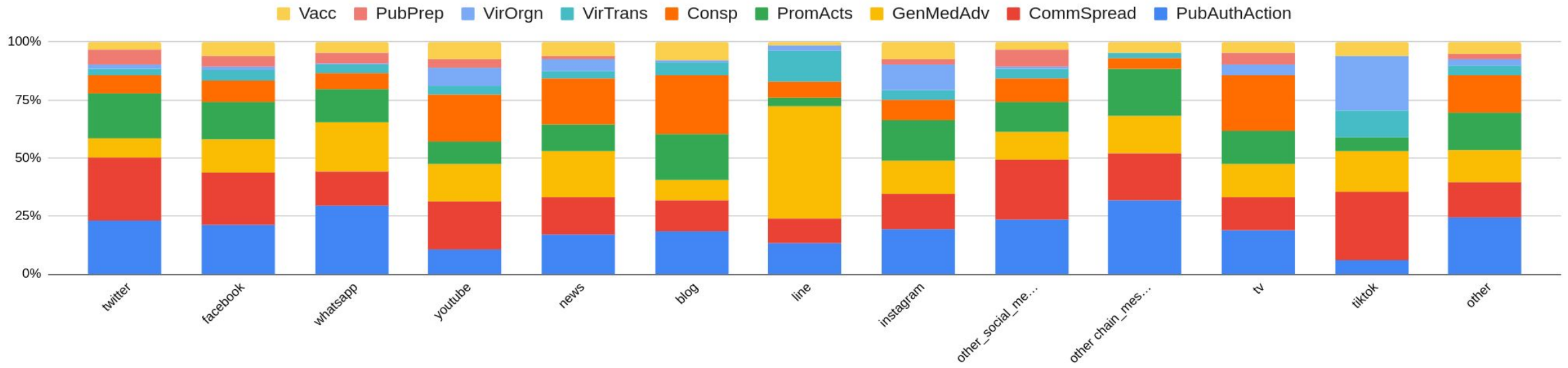
COVID-19 CLASSIFIER

- Large-scale analysis:
  - Most spread in social media → Public Authority action and Community spread
  - Instagram and Tiktok → Virus origin
  - News, Youtube, Blog and TV → Conspiracy theory
  - Messages apps → General medical advise



Credit: Xingyi Song (Sheffield)

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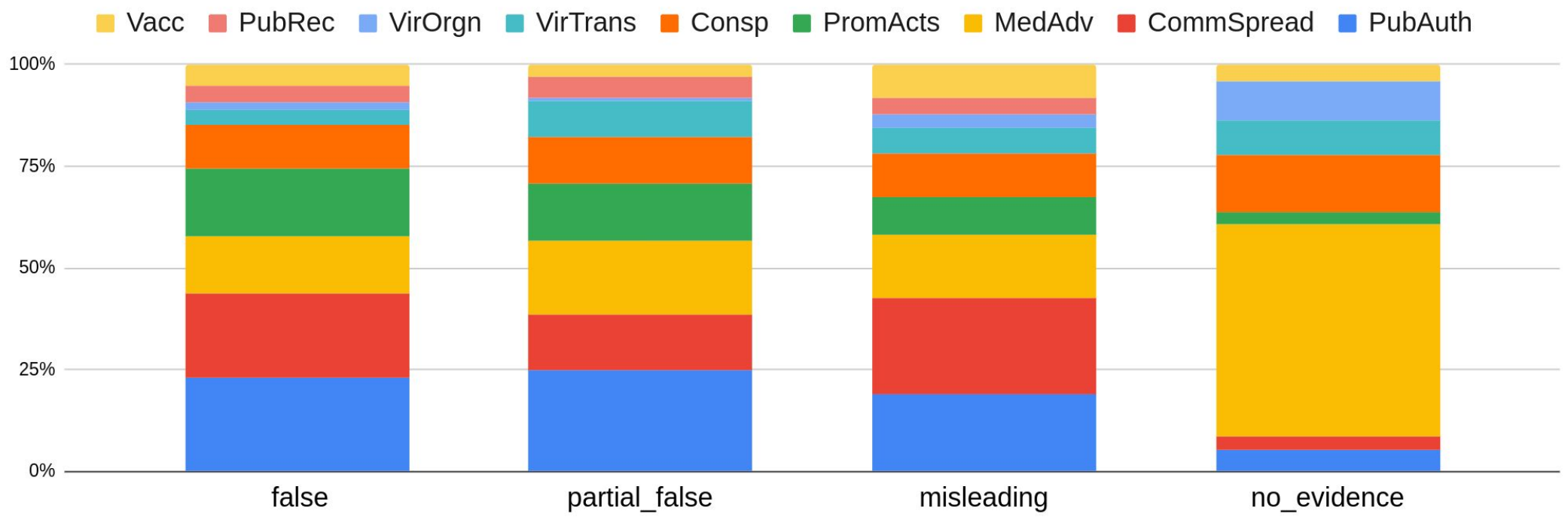
COVID-19 CLASSIFIER

- **Large-scale analysis:**
  - **Community spread** → **highest in misleading claims**
  - **~ 50% of No evidence** → **General advise**



Credit: Xingyi Song (Sheffield)

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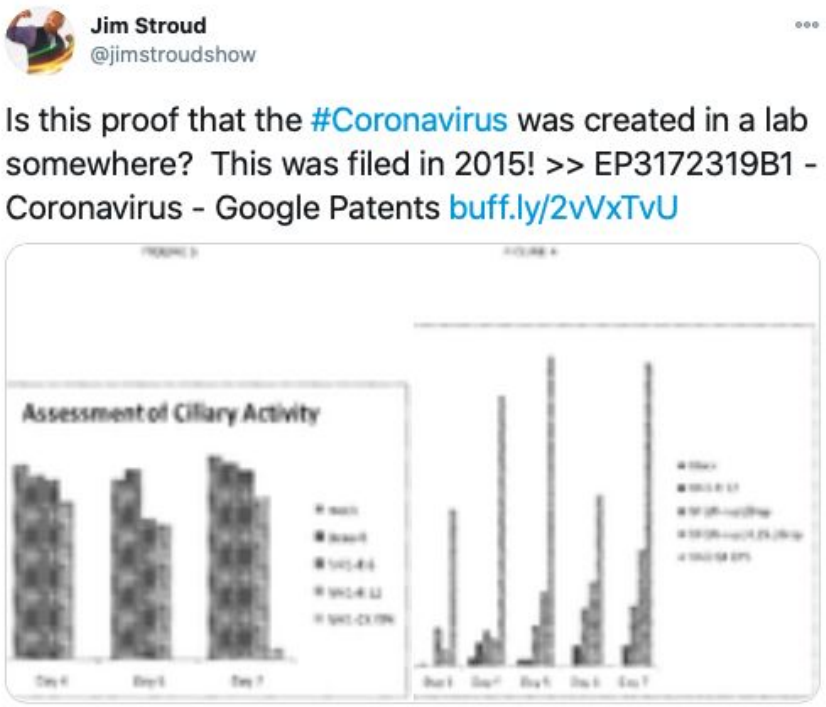
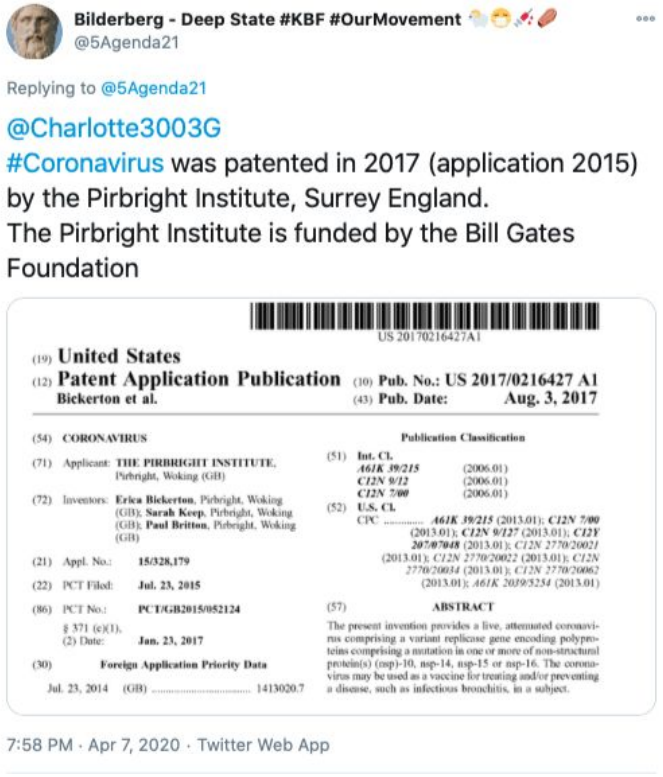
Ongoing and Future Work

COVID-19 Social Media Analysis

➢ Matching debunks (IFCN dataset) with tweets → finding misinformation

"[The coronavirus is] 'new' yet it was lab-created and patented in 2015"





https://www.poynter.org/?ifcn_misinformation=the-coronavirus-is-new-yet-it-was-lab-created-and-patented-in-2015

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➢ Matching debunks (IFCN dataset) with tweets → finding debunks

"An alkaline diet could prevent COVID-19"

https://www.poynter.org/?ifcn_misinformation=alkaline-diet-could-prevent-covid-19

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Digital Companion Assistant

InVID
In video veritas

TOOLS | TUTORIAL | CLASSROOM | INTERACTIVE | FACT CHECK | ABOUT | ASSISTANT | WeVerify

Media to Process

https://reveal-mklab.iti.gr/forensics_demo/AllocationsFamiliales.jpg

Potential Tools

Below are the tools you can use on this media type

The magnifier tool can be used to examine the image thoroughly

MAGNIFIER

The metadata tool can be used to retrieve image/video metadata

METADATA

The forensic tool can be used to detect any image manipulation

FORENSIC

Feedback

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MULTILINGUAL MISINFORMATION ANALYSIS

Italian (25/03)

English (26/03)

Spanish (31/03)

Portuguese (04/04)

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GATECloud WeVerify Services

TwitIE Named Entity Recognizer for Tweets

Named entity recognition service for Twitter data. Identifies *person*,*location*, *organization* etc. and also performsnormalization of abbreviations and common shorthands ("brb", "gr8", "2day",etc.).

1,200 free requests / day
Larger batches **£0.80 / CPU hour**

Twitter Collector

Collect tweets, view tweet statistics, and store results in your dashboard for further analysis.

£0.05 / CPU hour

English Tweet Tokenizer

Identifies words and punctuation in tweets

1,200 free requests / day
Larger batches **£0.80 / CPU hour**

French Tweet Tokenizer

Identifies words and punctuation in French tweets

1,200 free requests / day
Larger batches **£0.80 / CPU hour**

German Tweet Tokenizer

Identifies words and punctuation in German tweets

1,200 free requests / day
Larger batches **£0.80 / CPU hour**

Rumour veracity classifier

Classifies tweets based on whether the claims they make are true, false or unverifiable.

1,200 free requests / day
Larger batches **£0.80 / CPU hour**

Hyperpartisan scorer

Estimates the probability that a document could be classed as "hyper-partisan".

600 free requests / day
Larger batches **£0.80 / CPU hour**

Source Credibility

Annotates URLs to highlight the credibility of the source at which they ultimately point.

1,200 free requests / day
Batch processing not available

WeVerify OCR Service

This pipeline identifies URLs in the input text and tries to process them with optical character recognition to identify text in images.

1,200 free requests / day
Batch processing not available

Tweet Stance Classification

Classifies a reply to a tweet based on it's stance (support, deny, query, or comment) to the original

1,200 free requests / day
Larger batches **£0.80 / CPU hour**

COVID-19 Misinformation Categoriser

Assigns COVID-19 misinformation to one of several categories, including government actions, impact on community, medical advice, conspiracy theories, vaccine, etc.

600 free requests / day
Larger batches **£0.80 / CPU hour**

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Thank you for your attention!

www.weverify.eu

@WeVerify

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