

# Analyzing the Facebook algorithm, and **reclaim** ~~data~~ **algorithm** sovereignty

<https://github.com/tracking-exposed/presentations/> 35C3 slides



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@\_vecna

#fbTREX



Not  
only!

Just the first!

<https://facebook.tracking.exposed>

2014 breaking news!  
personalization algorithms **are a** tool of social control

## Experimental evidence of massive-scale emotional contagion through social networks



Adam D. I. Kramer, Jamie E. Guillory, and Jeffrey T. Hancock

PNAS June 17, 2014 111 (24) 8788-8790; published ahead of print June 2, 2014 <https://doi.org/10.1073/pnas.1320040111>

Edited by Susan T. Fiske, Princeton University, Princeton, NJ, and approved March 25, 2014 (received for review October 23, 2013)

**This article has corrections. Please see:**

Editorial Expression of Concern: Experimental evidence of massive-scale emotional contagion through social networks

# Judge your content curation!

## What Happens to #Ferguson Affects Ferguson:



Zeynep Tufekci

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Aug 14, 2014 · 6 min read

### Net Neutrality, Algorithmic Filtering and Ferguson

*"And then I switched to non net-neutral Internet to see what was up.  
Nada, zip, nada  
No Ferguson on Facebook last night. I scrolled. Refreshed." -- Zeynep T.*



**Caryn Vainio**

@Hellchick

Follow



For those of you who work in social media, I need to share the story of my friend who died, and I didn't know because algorithms.

1:05 PM - 18 Dec 2017

<https://twitter.com/hellchick/status/942863353403150336>

2018: personalization algorithms **are still used** as a tool of social control

January 11, 2018

**Bringing People Closer Together**



"I'm changing the goal I give our product teams from focusing on helping you find relevant content to helping you have more meaningful social interactions"

- Mark Z.





# A phenomena is growing, with different agendas

<a href="https://datasociety.net/">https://datasociety.net/</a>	<a href="https://openai.com/">https://openai.com/</a>	<a href="https://docs.ethically.ai/">https://docs.ethically.ai/</a>	<a href="https://github.com/daviddao/awful-ai">https://github.com/daviddao/awful-ai</a>
<a href="https://aiethicsinitiative.org/">https://aiethicsinitiative.org/</a>	<a href="https://www.partnershiponai.org/">https://www.partnershiponai.org/</a>	<a href="http://auditingalgorithm.sciencelab.org/">http://auditingalgorithm.sciencelab.org/</a>	<a href="http://algorithmtips.org/">http://algorithmtips.org/</a>
<a href="https://algorithmwatch.org/">https://algorithmwatch.org/</a>	<a href="https://ainowinstitute.org/">https://ainowinstitute.org/</a>	<a href="https://www.algoaware.eu">https://www.algoaware.eu</a>	<a href="https://ethicstoolkit.ai/">https://ethicstoolkit.ai/</a>
<a href="https://www.ailunited.org/">https://www.ailunited.org/</a>	<a href="https://datajusticeproject.net/">https://datajusticeproject.net/</a>	<a href="https://cyber.harvard.edu/topics/ethics-and-governance-ai">https://cyber.harvard.edu/topics/ethics-and-governance-ai</a>	<a href="https://algorithmobservatory.com">https://algorithmobservatory.com</a>
	<a href="http://algotransparency.org/">http://algotransparency.org/</a>	<a href="http://topiaethics.com/">http://topiaethics.com/</a>	

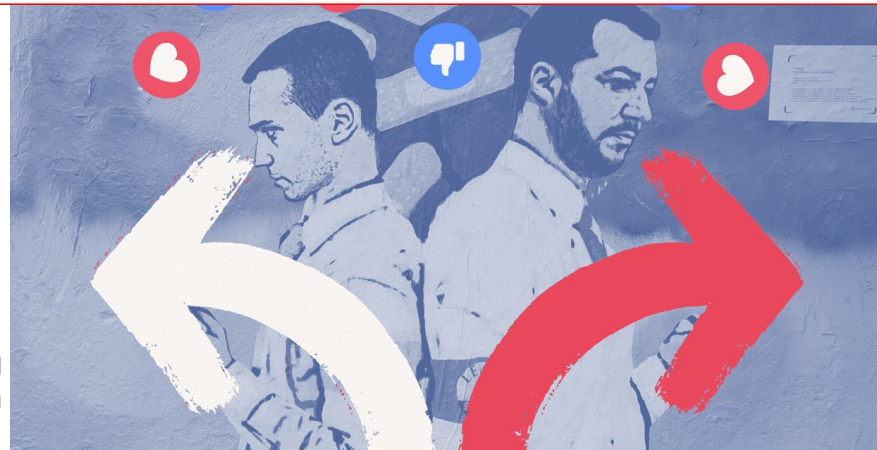
Can you spot the corporate lobbyists?



**The new populism** World news

# Revealed: how Italy's populists used Facebook to win power

A mural in Milan depicts Luigi Di Maio, left, and Matteo Salvini using Facebook on their phones. Illustration: Guardian Design



They are both  
vice prime  
minister.

The issue is in  
what this  
article implies

engage = 🏰

## Luigi Di Maio and Matteo Salvini dominated Facebook during the 2018 election

Luigi Di Maio



Matteo Salvini



Giorgia Meloni



Matteo Renzi



Silvio Berlusconi



Pietro Grasso



Source: Facebook data analysed University of Pisa's MediaLab and University of Milan. Note: data spans 1 January to 3 March 2018

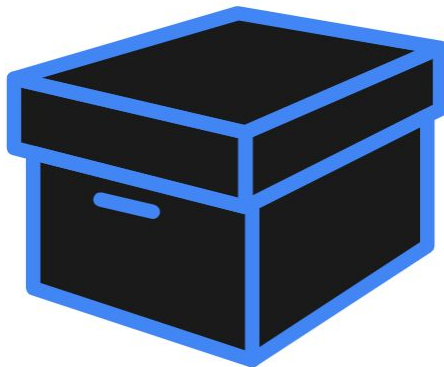
*"The Facebook data, which captured the engagement metrics on thousands of posts by the six major party leaders in the two months leading up to the election"*

# Warning:

variables of different natures



Money to produce  
(and promote?)  
content




Facebook hidden  
design choices



what we want, can  
wanting and voting

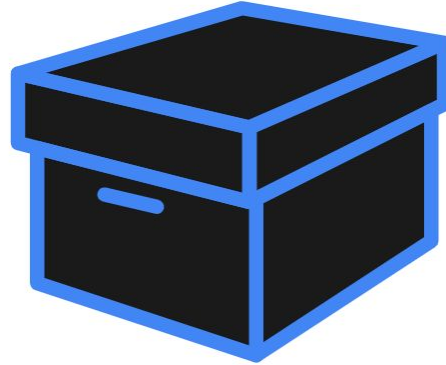
# Hackers don't (look at) *likes*

-  is a petty way to measure anything
- If we use the metric provided by the system of oppression, we have already lost

# Look at them as components



People producing  
content for  
Facebook



Facebook prioritization

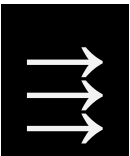


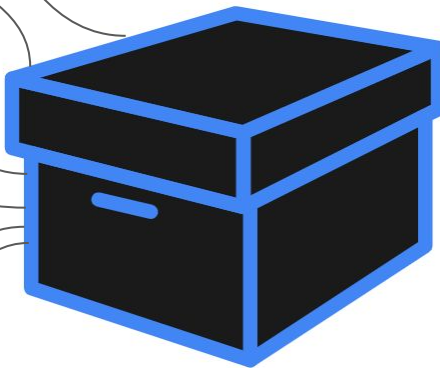
People reading  
Facebook

# A passive actor with an agenda

Source  
(page, friends)

Produced  
today

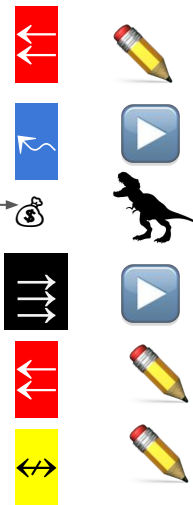
	 5  2
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	 8
	 1  1



"I know what you want!"



At 6 PM the user connects, and Facebook build a **personalized timeline**



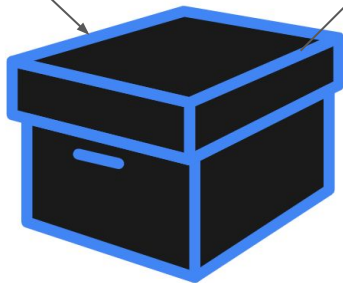
We expose how tracking and  
profiting from user data had a  
negative impact on society.



# To do this, we collect *evidence*



People  
producing  
content for  
Facebook



Keep track of what  
Facebook is selecting for  
you



People on Facebook With our  
Browser Extension installed




We expose how tracking and  
profiting from user data had a  
negative impact on society.

**IS HARD!**

# Black-box testing is reducing variables



We made few accounts:


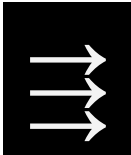

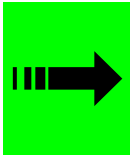


- with zero friends
- same access frequency
- Time scope: elections 



The accounts:

- follow the same (30) pages
- Like **them differently**

# Looks like a **bot**, but...

Santiago	Michiele	Antonietta	Britta	Andrea	Oliviero
					
 center left	far right	left	5star	right	undecided

# An auto-scroller lets the bots collect the same amount of samples

Santiago



Michiele



Antonietta



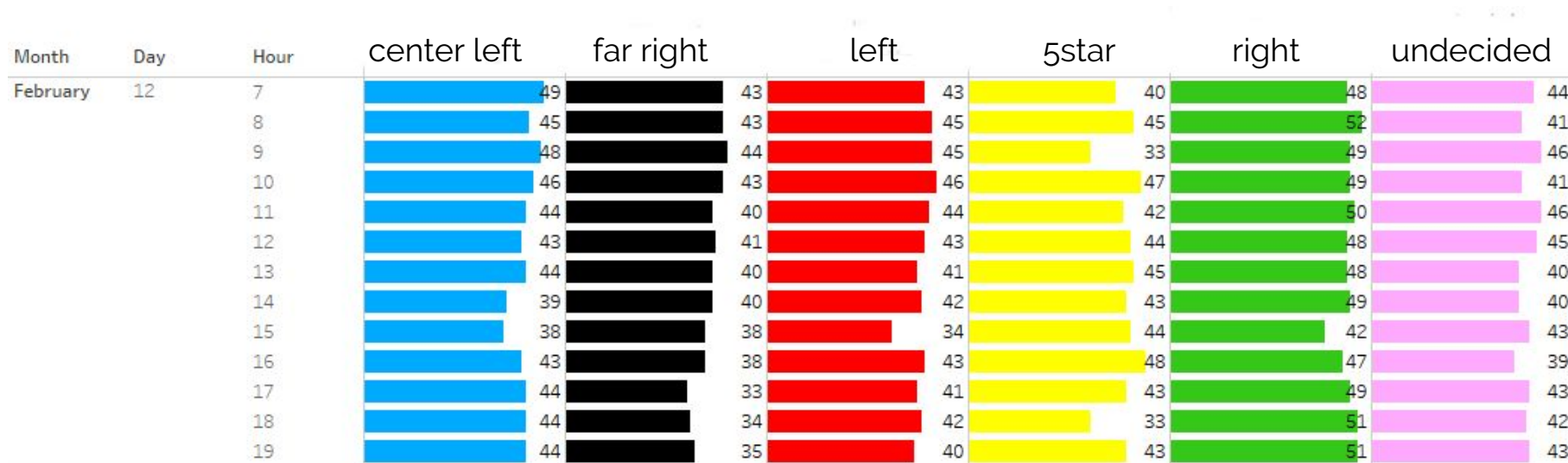
Britta



Andrea



Oliviero



A tampermonkey user script <https://facebook.tracking.exposed/autoscroll.user.js>

# How to visualize an algorithm? Look for patterns!

Santiago



Michiele



Antonietta



Britta



Andrea



Oliviero??



Month	Day	type	center left	far right	left	5star	right	undecided
February	8	photo						
		post	39.10%	53.80%	33.45%	25.85%	21.62%	30.18%
		video						
	9	photo	57.90%	38.19%	64.92%	69.88%	74.49%	59.17%
		post	3.00%	8.01%	1.63%	4.28%	3.89%	10.65%
		video						
	10	photo	36.70%	62.03%	38.29%	27.76%	23.22%	21.76%
		post	58.61%	32.70%	60.98%	67.41%	69.15%	60.88%
		video	4.70%	5.27%	0.73%	4.83%	7.63%	17.37%
	11	photo	38.81%	63.02%	36.25%	28.79%	18.34%	29.06%
		post	57.52%	29.42%	61.07%	66.72%	75.24%	58.11%
		video	3.67%	7.55%	2.68%	4.48%	6.43%	12.83%
	12	photo	33.93%	58.47%	34.87%	27.12%	18.99%	29.16%
		post	62.84%	33.33%	62.74%	69.26%	73.60%	56.45%
		video	3.23%	8.19%	2.39%	3.63%	7.40%	14.39%
	13	photo	36.25%	61.91%	38.62%	34.36%	17.22%	29.66%
		post	60.25%	30.86%	59.20%	63.09%	78.04%	58.23%
		video	3.50%	7.23%	2.19%	2.55%	4.74%	12.12%
	14	photo	44.76%	63.24%	42.06%	34.00%	22.62%	31.65%
		post	52.22%	33.00%	56.45%	63.80%	71.45%	55.92%
		video	3.02%	3.75%	1.50%	2.19%	5.93%	12.43%
	15	photo	44.72%	53.78%	38.49%	36.28%	29.07%	28.65%
		post	51.16%	41.63%	58.61%	60.53%	62.30%	58.00%
		video	4.11%	4.58%	2.90%	3.19%	8.63%	13.36%

# Is it true across the day?

Santiago 

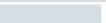
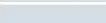




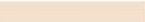

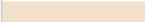
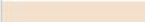
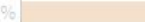
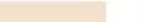


















































































































Michiele 

Antonietta 

Britta 

Andrea 

Oliviero 

Month	Day of	type	center left	far right	left	5star	right	undecided
February	8	photo	 39.10%	 53.80%	 33.45%	 25.85%	 21.62%	 30.18%
		post	 57.90%	 38.19%	 64.92%	 69.88%	 74.49%	 59.17%
		video	 3.00%	 8.01%	 1.63%	 4.28%	 3.89%	 10.65%
	9	photo	 36.70%	 62.03%	 38.29%	 27.76%	 23.22%	 21.76%
		post	 58.61%	 32.70%	 60.98%	 67.41%	 69.15%	 60.88%
		video	 4.70%	 5.27%	 0.73%	 4.83%	 7.63%	 17.37%
	10	photo	 38.81%	 63.02%	 36.25%	 28.79%	 18.34%	 29.06%
		post	 57.52%	 29.42%	 61.07%	 66.72%	 75.24%	 58.11%
		video	 3.67%	 7.55%	 2.68%	 4.48%	 6.43%	 12.83%
	11	photo	 33.93%	 58.47%	 34.87%	 27.12%	 18.99%	 29.16%
		post	 62.84%	 33.33%	 62.74%	 69.26%	 73.60%	 56.45%
		video	 3.23%	 8.19%	 2.39%	 3.63%	 7.40%	 14.39%
	12	photo	 36.25%	 61.91%	 38.62%	 34.36%	 17.22%	 29.66%
		post	 60.25%	 30.86%	 59.20%	 63.09%	 76.04%	 58.23%
		video	 3.50%	 7.23%	 2.19%	 2.55%	 4.74%	 12.12%
	13	photo	 44.76%	 63.24%	 42.06%	 34.00%	 22.62%	 31.65%
		post	 52.22%	 33.00%	 56.45%	 63.80%	 71.45%	 55.92%
		video	 3.02%	 3.75%	 1.50%	 2.19%	 5.93%	 12.43%
	14	photo	 44.72%	 53.76%	 38.49%	 36.28%	 29.07%	 28.65%
		post	 51.16%	 41.63%	 58.61%	 60.53%	 62.30%	 58.00%
		video	 4.11%	 4.58%	 2.90%	 3.19%	 8.63%	 13.36%

# comparing the content types is a metric now

Santiago



Michiele



Antonietta



Britta



Andrea



Oliviero



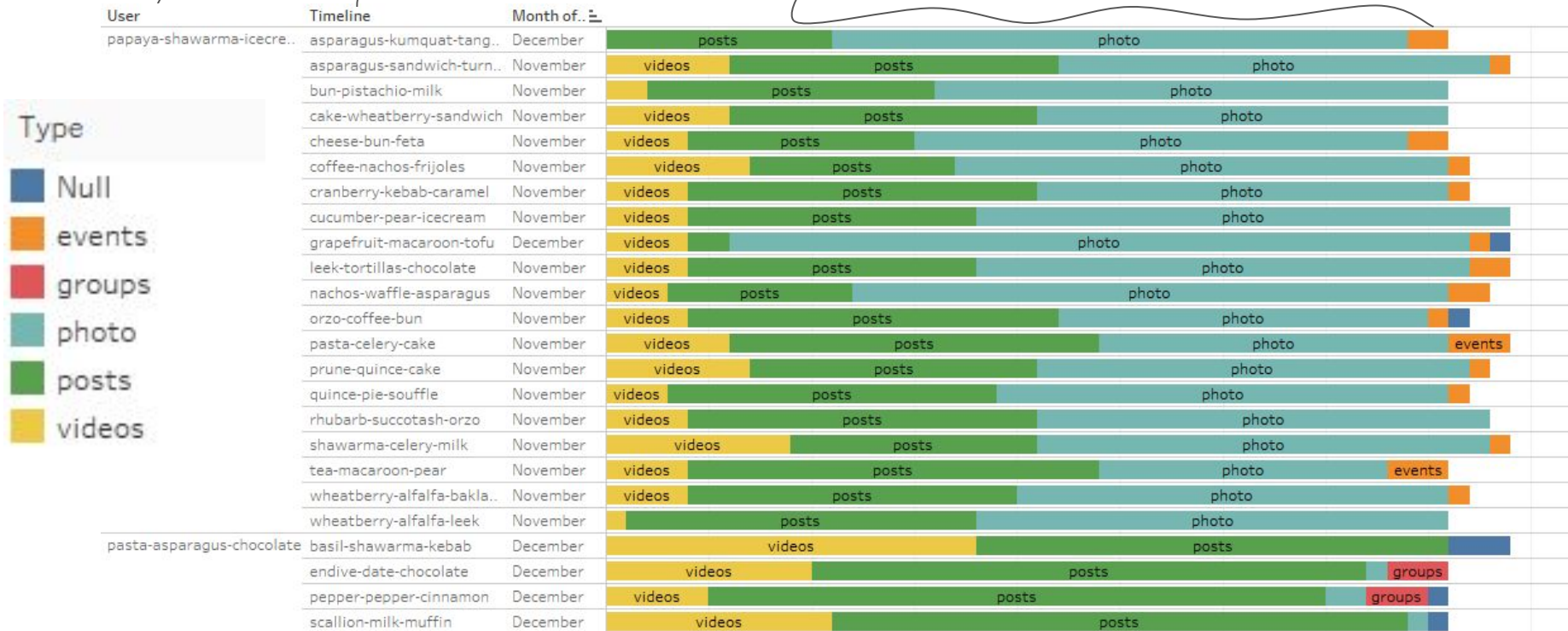
Month	Day	Hour	type	center left	far right	left	5star	right	undecided						
February	9	7	photo	<div><div></div></div>	17.78%	<div><div></div></div>	44.44%	<div><div></div></div>	38.10%	<div><div></div></div>	20.51%	<div><div></div></div>	20.41%	<div><div></div></div>	9.30%
			post	<div><div></div></div>	73.33%	<div><div></div></div>	47.22%	<div><div></div></div>	61.90%	<div><div></div></div>	74.36%	<div><div></div></div>	69.39%	<div><div></div></div>	60.47%
			video	<div><div></div></div>	8.89%	<div><div></div></div>	8.33%	<div><div></div></div>	5.13%	<div><div></div></div>	5.13%	<div><div></div></div>	10.20%	<div><div></div></div>	30.23%
	8		photo	<div><div></div></div>	22.22%	<div><div></div></div>	52.78%	<div><div></div></div>	36.36%	<div><div></div></div>	28.26%	<div><div></div></div>	23.40%	<div><div></div></div>	16.28%
			post	<div><div></div></div>	68.89%	<div><div></div></div>	38.89%	<div><div></div></div>	63.64%	<div><div></div></div>	65.22%	<div><div></div></div>	70.21%	<div><div></div></div>	62.79%
			video	<div><div></div></div>	8.89%	<div><div></div></div>	8.33%	<div><div></div></div>	6.52%	<div><div></div></div>	6.52%	<div><div></div></div>	6.38%	<div><div></div></div>	20.93%
	9		photo	<div><div></div></div>	35.71%	<div><div></div></div>	55.56%	<div><div></div></div>	44.74%	<div><div></div></div>	30.00%	<div><div></div></div>	12.50%	<div><div></div></div>	34.21%
			post	<div><div></div></div>	54.76%	<div><div></div></div>	38.89%	<div><div></div></div>	52.63%	<div><div></div></div>	65.00%	<div><div></div></div>	81.25%	<div><div></div></div>	47.37%
			video	<div><div></div></div>	9.52%	<div><div></div></div>	5.56%	<div><div></div></div>	2.63%	<div><div></div></div>	5.00%	<div><div></div></div>	6.25%	<div><div></div></div>	18.42%
	10		photo	<div><div></div></div>	42.86%	<div><div></div></div>	55.88%	<div><div></div></div>	42.86%	<div><div></div></div>	31.11%	<div><div></div></div>	28.00%	<div><div></div></div>	28.57%
			post	<div><div></div></div>	52.38%	<div><div></div></div>	41.18%	<div><div></div></div>	54.76%	<div><div></div></div>	66.67%	<div><div></div></div>	64.00%	<div><div></div></div>	47.62%
			video	<div><div></div></div>	4.76%	<div><div></div></div>	2.94%	<div><div></div></div>	2.38%	<div><div></div></div>	2.22%	<div><div></div></div>	8.00%	<div><div></div></div>	23.81%
	11		photo	<div><div></div></div>	42.31%	<div><div></div></div>	61.11%	<div><div></div></div>	52.38%	<div><div></div></div>	34.04%	<div><div></div></div>	29.55%	<div><div></div></div>	25.58%
			post	<div><div></div></div>	53.85%	<div><div></div></div>	33.33%	<div><div></div></div>	47.62%	<div><div></div></div>	63.83%	<div><div></div></div>	52.27%	<div><div></div></div>	51.16%
			video	<div><div></div></div>	3.85%	<div><div></div></div>	5.56%	<div><div></div></div>	2.13%	<div><div></div></div>	2.13%	<div><div></div></div>	18.18%	<div><div></div></div>	23.26%
	12		photo	<div><div></div></div>	38.30%	<div><div></div></div>	63.16%	<div><div></div></div>	45.24%	<div><div></div></div>	30.43%	<div><div></div></div>	38.10%	<div><div></div></div>	23.91%
			post	<div><div></div></div>	59.57%	<div><div></div></div>	31.58%	<div><div></div></div>	54.76%	<div><div></div></div>	63.04%	<div><div></div></div>	54.76%	<div><div></div></div>	56.52%
			video	<div><div></div></div>	2.13%	<div><div></div></div>	5.26%	<div><div></div></div>	6.52%	<div><div></div></div>	6.52%	<div><div></div></div>	7.14%	<div><div></div></div>	19.57%
	13		photo	<div><div></div></div>	47.62%	<div><div></div></div>	68.42%	<div><div></div></div>	36.96%	<div><div></div></div>	21.74%	<div><div></div></div>	26.19%	<div><div></div></div>	19.05%
			post	<div><div></div></div>	50.00%	<div><div></div></div>	26.32%	<div><div></div></div>	60.87%	<div><div></div></div>	69.57%	<div><div></div></div>	71.43%	<div><div></div></div>	61.90%
			video	<div><div></div></div>	2.38%	<div><div></div></div>	5.26%	<div><div></div></div>	2.17%	<div><div></div></div>	8.70%	<div><div></div></div>	2.38%	<div><div></div></div>	19.05%
	14		photo	<div><div></div></div>	35.71%	<div><div></div></div>	68.42%	<div><div></div></div>	33.33%	<div><div></div></div>	26.19%	<div><div></div></div>	27.50%	<div><div></div></div>	27.50%
			post	<div><div></div></div>	61.90%	<div><div></div></div>	26.32%	<div><div></div></div>	64.44%	<div><div></div></div>	69.05%	<div><div></div></div>	70.00%	<div><div></div></div>	57.50%
			video	<div><div></div></div>	2.38%	<div><div></div></div>	5.26%	<div><div></div></div>	2.22%	<div><div></div></div>	4.76%	<div><div></div></div>	2.50%	<div><div></div></div>	15.00%
	15		photo	<div><div></div></div>	42.86%	<div><div></div></div>	69.44%	<div><div></div></div>	41.03%	<div><div></div></div>	30.95%	<div><div></div></div>	40.48%	<div><div></div></div>	32.43%
			post	<div><div></div></div>	52.38%	<div><div></div></div>	25.00%	<div><div></div></div>	58.97%	<div><div></div></div>	61.90%	<div><div></div></div>	54.76%	<div><div></div></div>	56.76%
			video	<div><div></div></div>	4.76%	<div><div></div></div>	5.56%	<div><div></div></div>	7.14%	<div><div></div></div>	7.14%	<div><div></div></div>	4.76%	<div><div></div></div>	10.81%
	16		photo	<div><div></div></div>	41.46%	<div><div></div></div>	63.89%	<div><div></div></div>	35.90%	<div><div></div></div>	28.26%	<div><div></div></div>	20.83%	<div><div></div></div>	16.67%
			post	<div><div></div></div>	56.10%	<div><div></div></div>	30.56%	<div><div></div></div>	64.10%	<div><div></div></div>	69.57%	<div><div></div></div>	68.75%	<div><div></div></div>	73.81%
			video	<div><div></div></div>	2.44%	<div><div></div></div>	5.56%	<div><div></div></div>	2.17%	<div><div></div></div>	2.17%	<div><div></div></div>	10.42%	<div><div></div></div>	9.52%



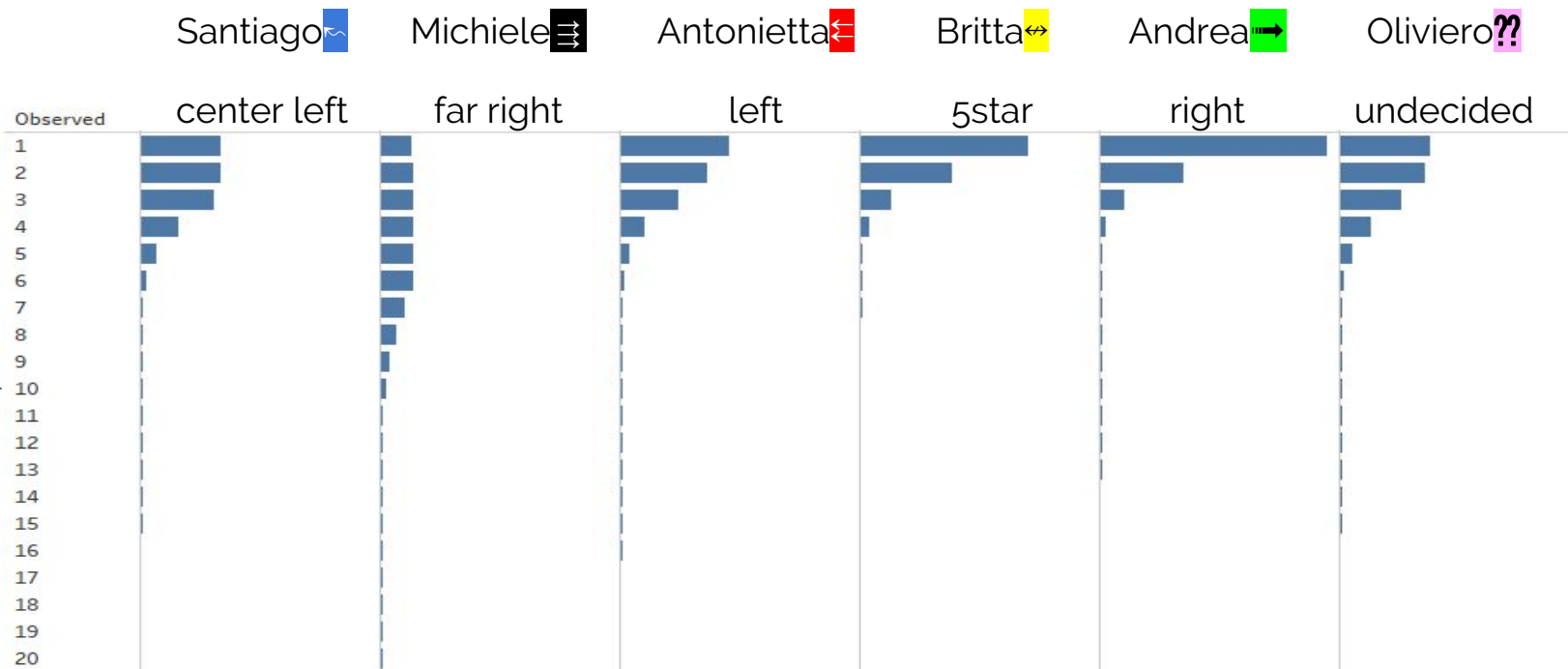
# We have a metric!? Now we can use it on us

pseudorandom Id

Number of public post per timeline



# Another metric: repetition of the same post (1st)

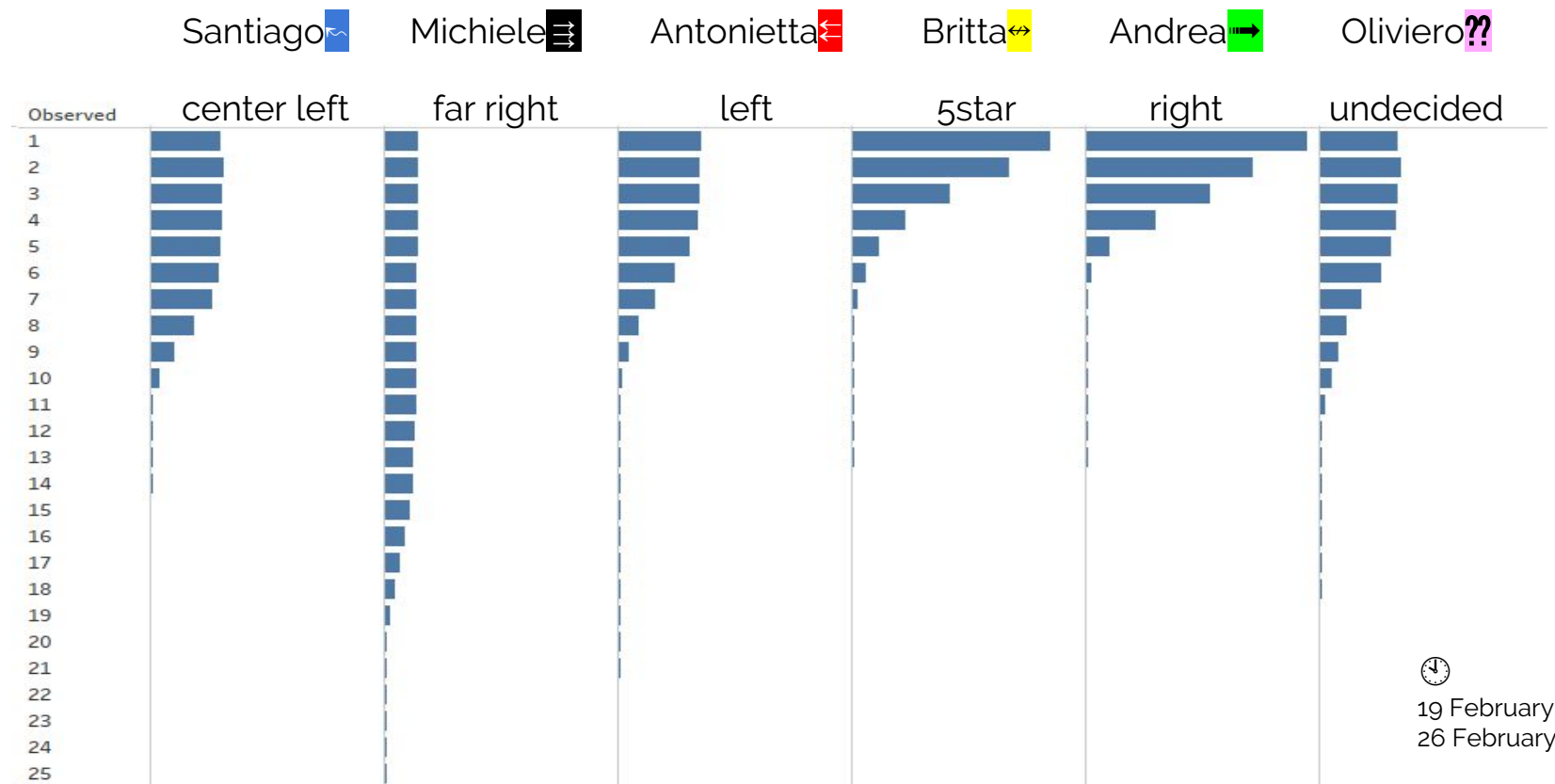


Number of times the same post has been observed.  
repeated by Facebook despite fresh content available



8 February  
14 February

# Another metric: repetition of the same post (2nd)

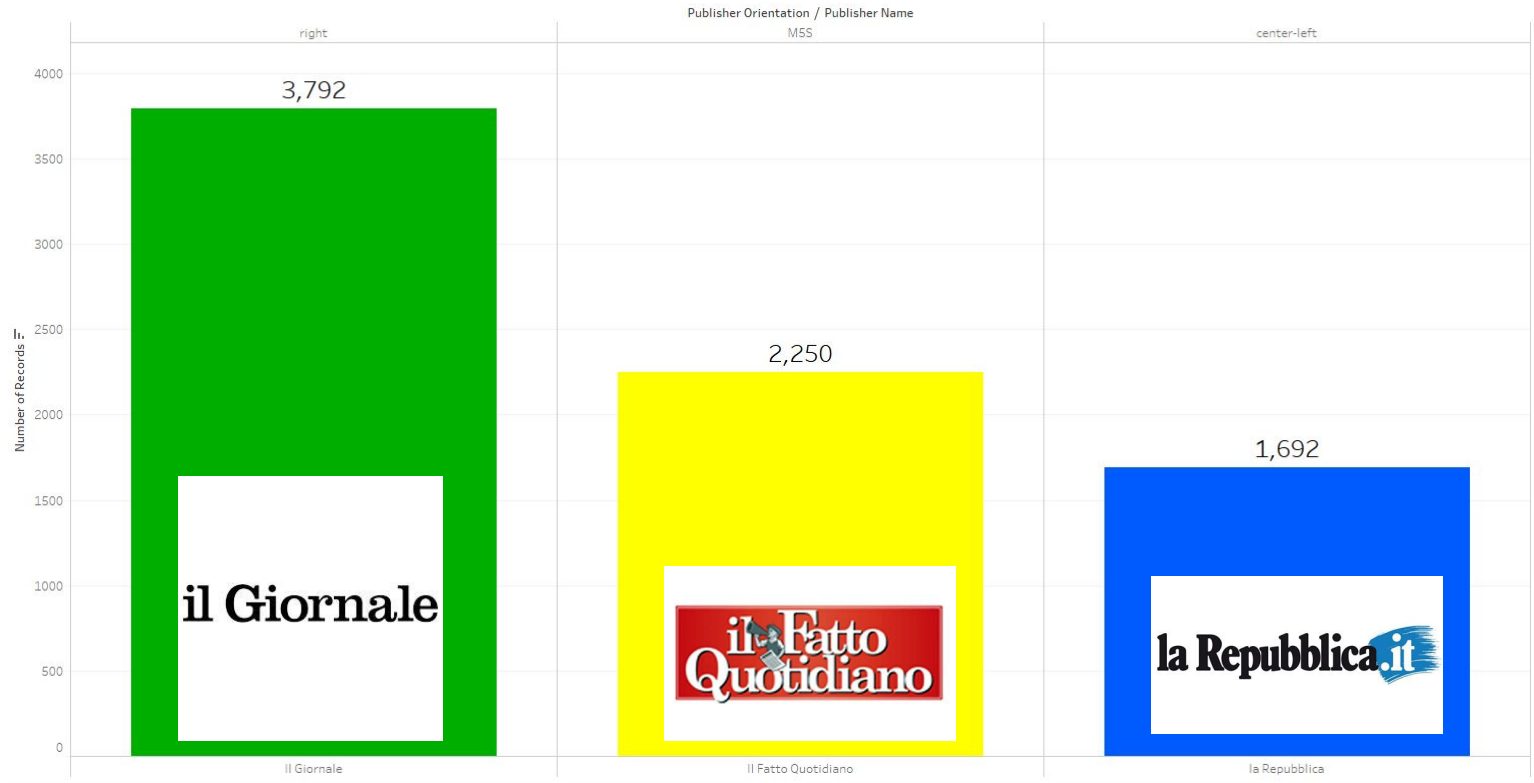


The **algorithm monopoly**  
is an **issue** for a multitude  
of entities...

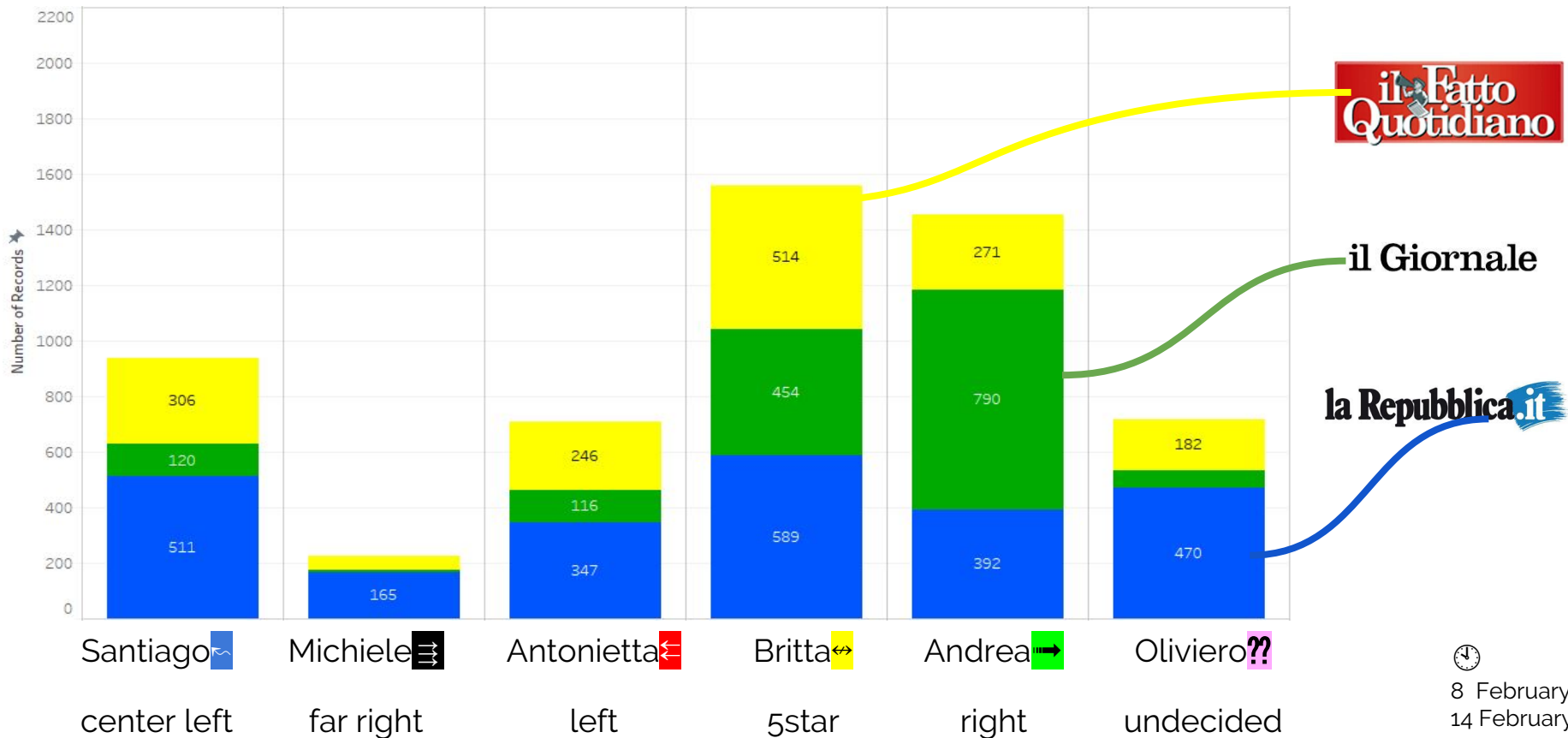
Specially **for who invests**  
on the platform.

# Compare 100% of the posts made by publishers

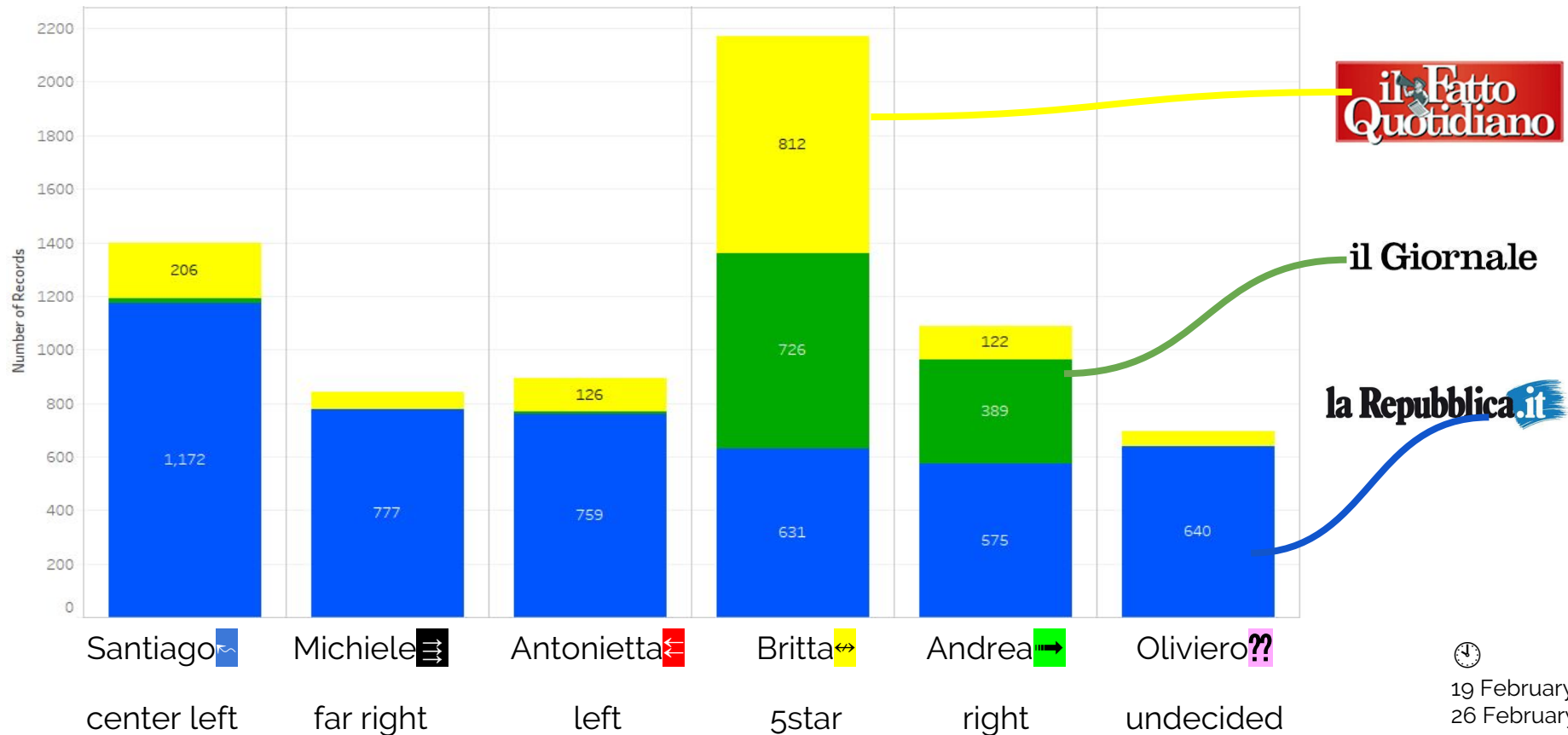
Published posts by three selected media



# There is no fair treatment to anyone (1st)



# There is no fair treatment to anyone (2nd)



19 February  
26 February



empowering masses to bring issues ㄟ(ツ)ㄏ



Astronomer Copernicus, conversation with God.



Galileo facing the Roman Inquisition.

<https://www.openrightsgroup.org/blog/2018/facebook-don%E2%80%99t-want-you-to-know-how-their-algorithm-works>



tracking.exposed: investigating algorithms  
Version 1.1.15

Extension

Jul 17, 2018

★ 5

316

TAKEN DOWN



# Shared knowledge

We think the greatest equalizer between users and companies is knowledge.

This is why we advocate for an open approach and to share what we know.

# we used elections to humanize our story

- But algorithms are playing everyday
  - We want to enable others
- It is one of the few moment in which Global North feel someone might exploit them

# A simple method

1. If you are following this talk and understanding: **you know enough to try this**
2. If you know any conflict in which you are part of: **that's the narrative**
3. We can help you figure out a simple methodology to measure how the algorithm has an impact in your conflict.

Public Service Announcement

Dear friend,  
thanks for supporting the [facebook.tracking.exposed](#) initiative.

We care a lot about your privacy and we want to be as transparent as possible, that's why:

- The extension only see and collects the **public posts**. You will know that public posts are being recorded by a notification highlighting them in your newsfeed.
- We have a [Privacy Statement](#) that describes what data we collect, and why.
- We release only [free, open source code](#) everyone can audit.
- **Access to your data**, available to be downloaded or consulted (is a work in progress!). It contains what Facebook is showing you. In the 2017 will be improved with new visualizations and functionalities.

Settings

I'm part of a study group ☒

ThisIsThe GroupCodeName

Hide the banner on top of the posts ☐

SAVE AND RELOAD CANCEL

*1st, open*

*2nd, check*

*3rd, write+save*

# Research group

1. Can *tag* the contribution with a special codename
2. By knowing the codename the collections can be retrieved
3. Bots, humans, cyborg, autoscrolling or not: build your method!

"Franchise Prequel" is the fourth episode of [Season Twenty-One](#), and the 281st episode of [South Park](#). It aired on October 11, 2017



**Don't #deleteFacebook**  
**Give your profile**  
**to science!**



Available in the  
Chrome Web Store

# Responsible use of technology

We recognise that technology has the opportunity to elevate human potential, but we think this pursuit cannot be separated from serious responsibilities.

# fbTREX != SOCMINT

- We observe only the **NewsFeed, not individual profiles or pages.**
- <https://facebook.com/>



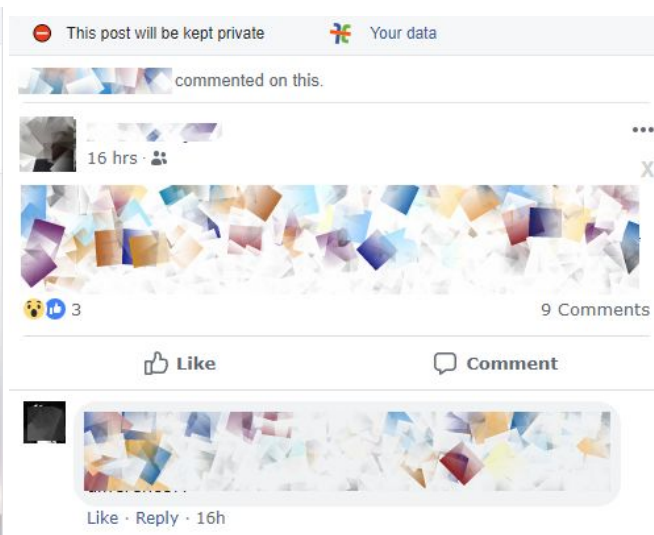
# Respect people's choices

- We observe only public posts
  - + It is compliant with ToS
- GDPR demand more
  - + We consider timeline a PII




# Respect people's choices

- Is the only client-side parsing

<https://github.com/tracking-exposed/web-extension/blob/master/src/scrape.js#L27>



# Respect people's choices

Peer reviewed!	<b>Our tests</b> Selected public sources (politician, media, parties)	Other adopters ( <b>like you</b> )
	<b>github/tracking-exposed</b> (kaggle?)	<b>Collected</b> & <b>Protected</b>
	<b>Not collected</b>	<b>Not collected</b>
	<b>Not collected</b>	<b>Not collected</b>

# Adopters <sup>*should*</sup> have exemplary control

- The data observed by your profiles are yours
- You would know how they are used in aggregated analysis

# Adopters <sup>should</sup> have exemplary control

- To be improved before the next campaign:
  - let data retention policy be customizable
  - *delete* operations are still manual
  - We have not “users”, this has to be specified and took a clear decision.

# Adopters can share portions of their informative experiences

- Strictly opt-in basis by each user involved
- On a case by case

# We want to show this



100

<https://github.com/tracking-exposed/venn-wordcloud>

# map-reduce runs on our DB

- **No** third-party **access**, **yes** third-party **code**
- Analysis that are run on the dataset will be aimed at understanding social phenomena, not individual behaviours.
  - This can't be formally verified.





**Wolfie Christl**

@WolfieChristl

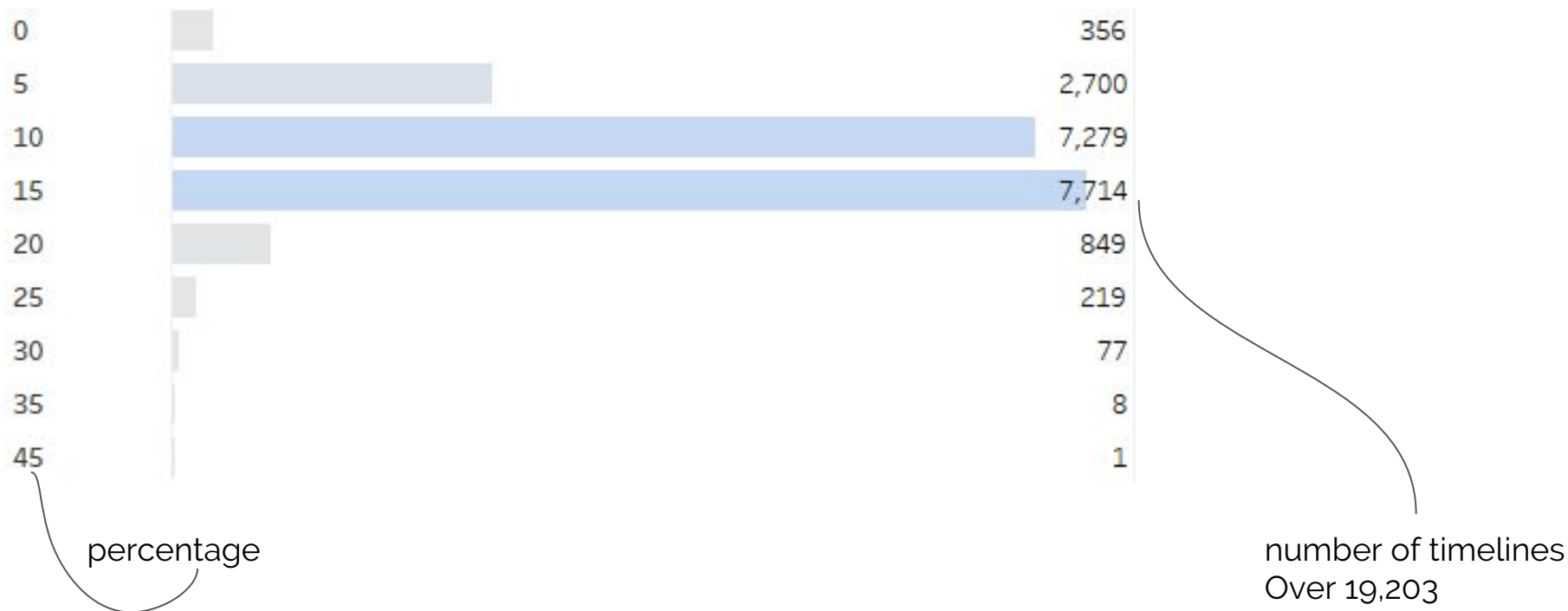
1 in 4 posts in my @facebook newsfeed are paid ads now. I feel like FB has rapidly increased the number of 'sponsored' posts and is becoming totally unusable.

Is there any data on the average share of 'sponsored' posts FB has been showing to users over time?

9:23 PM · Nov 11, 2018 · Twitter Web Client

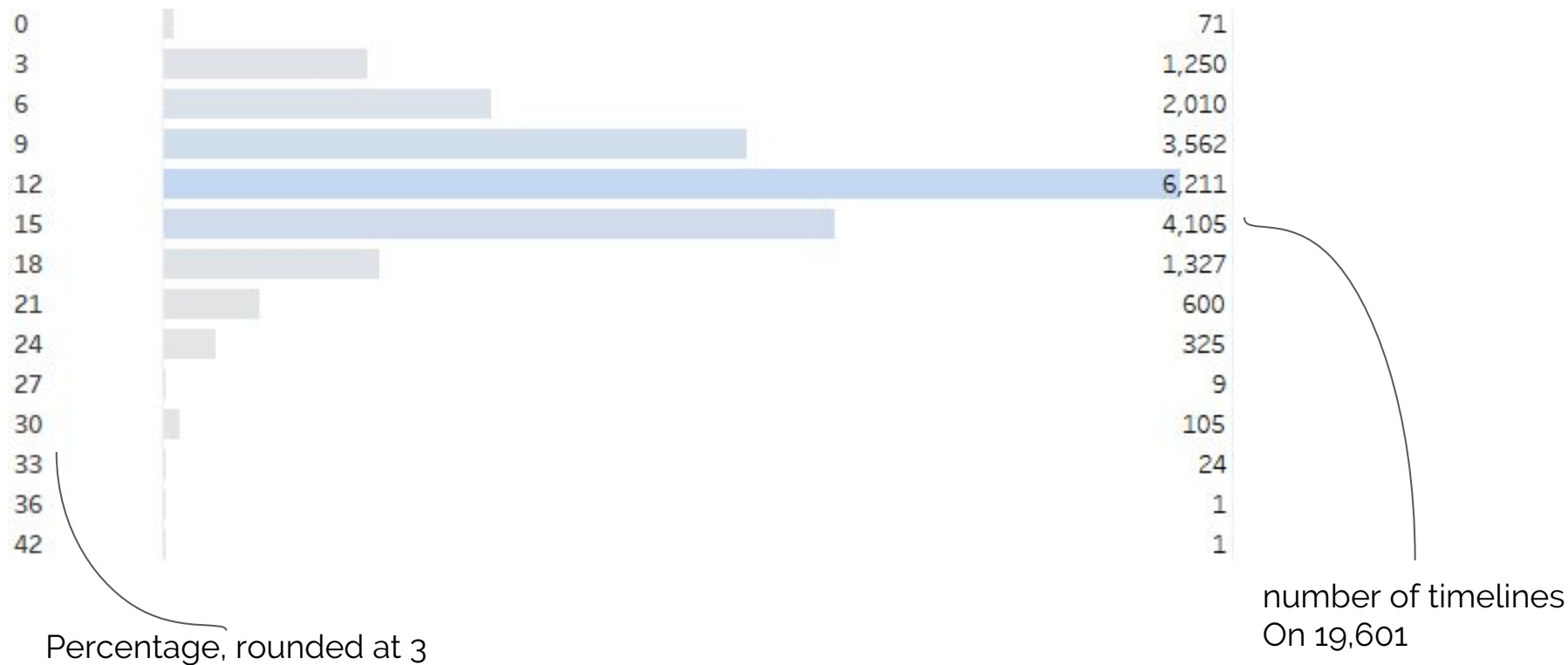
This how a  
research  
question  
looks like

# Percentage of advertising per timeline, January 2018



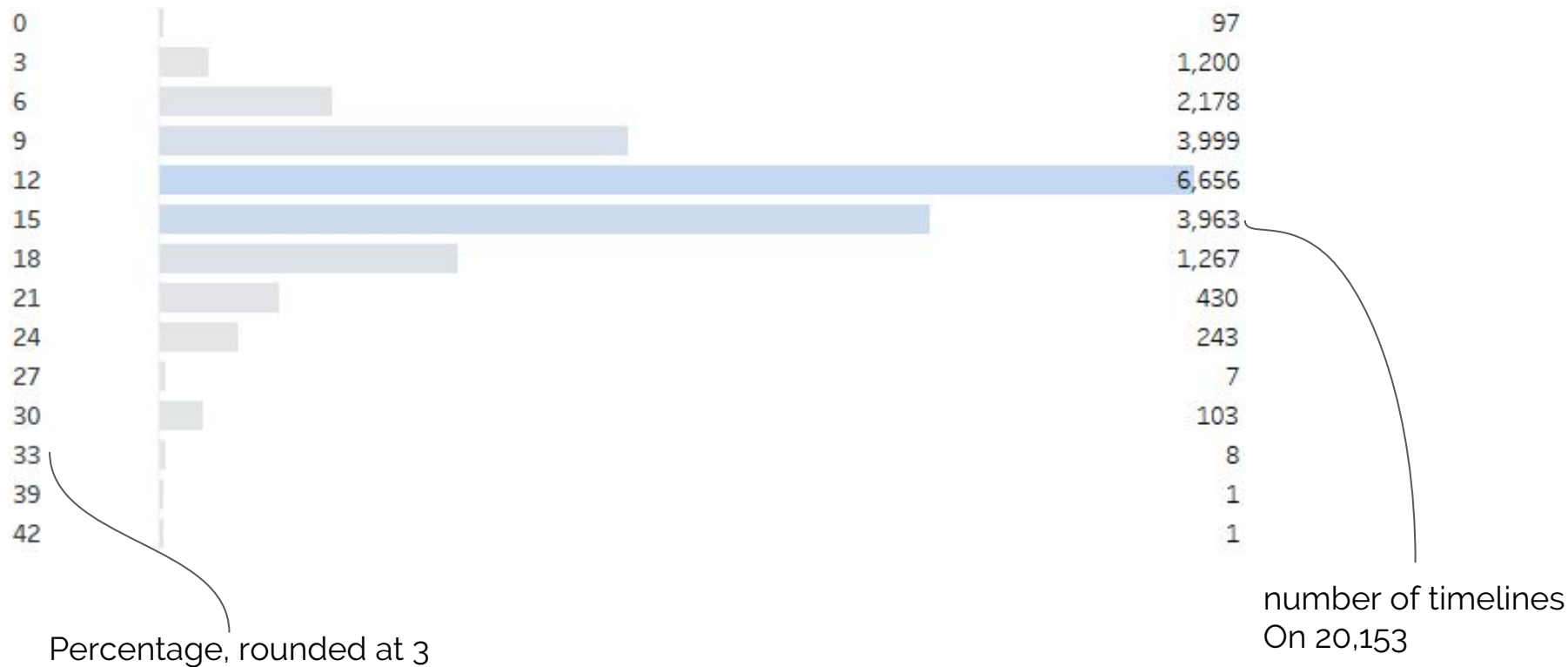
Considering only timelines with > 5 impressions

# Percentage of advertising per timeline, February 2018



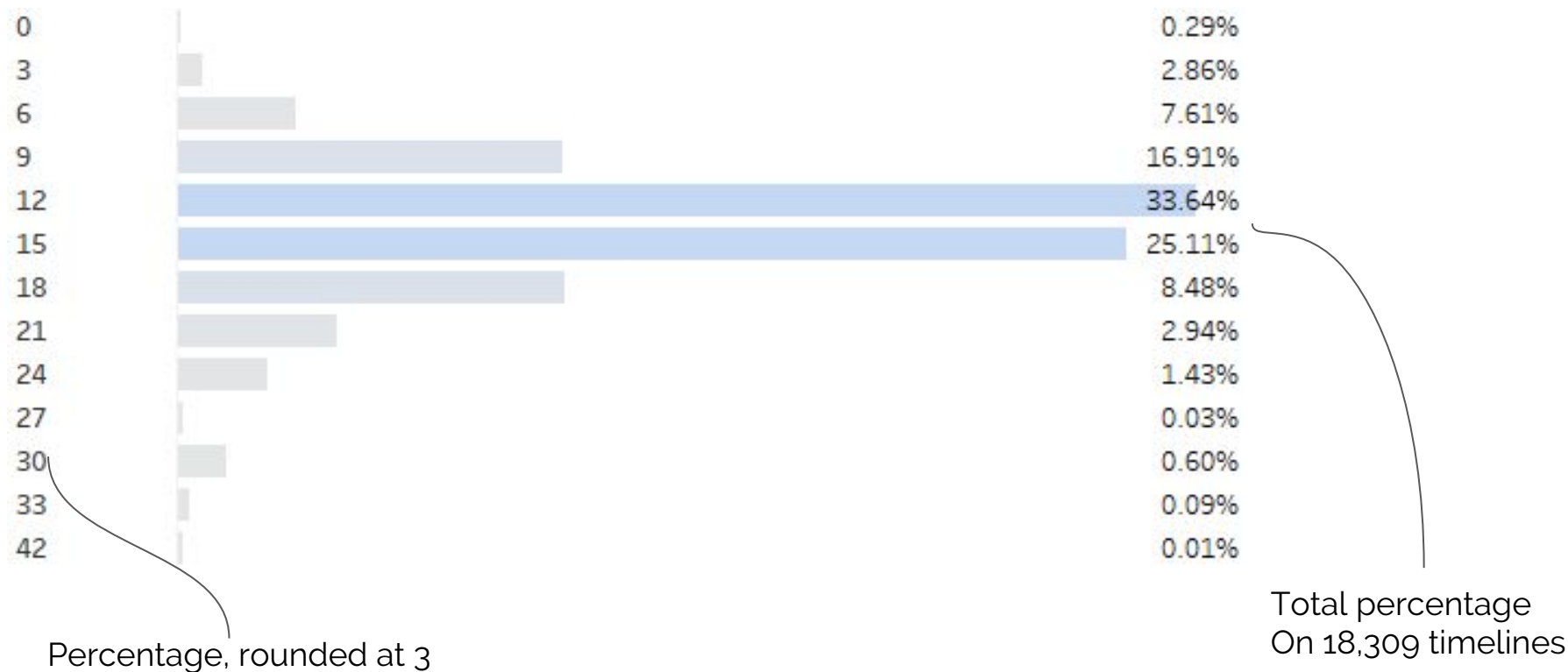
Considering only timelines with > 5 impressions

# Percentage of advertising per timeline, March 2018



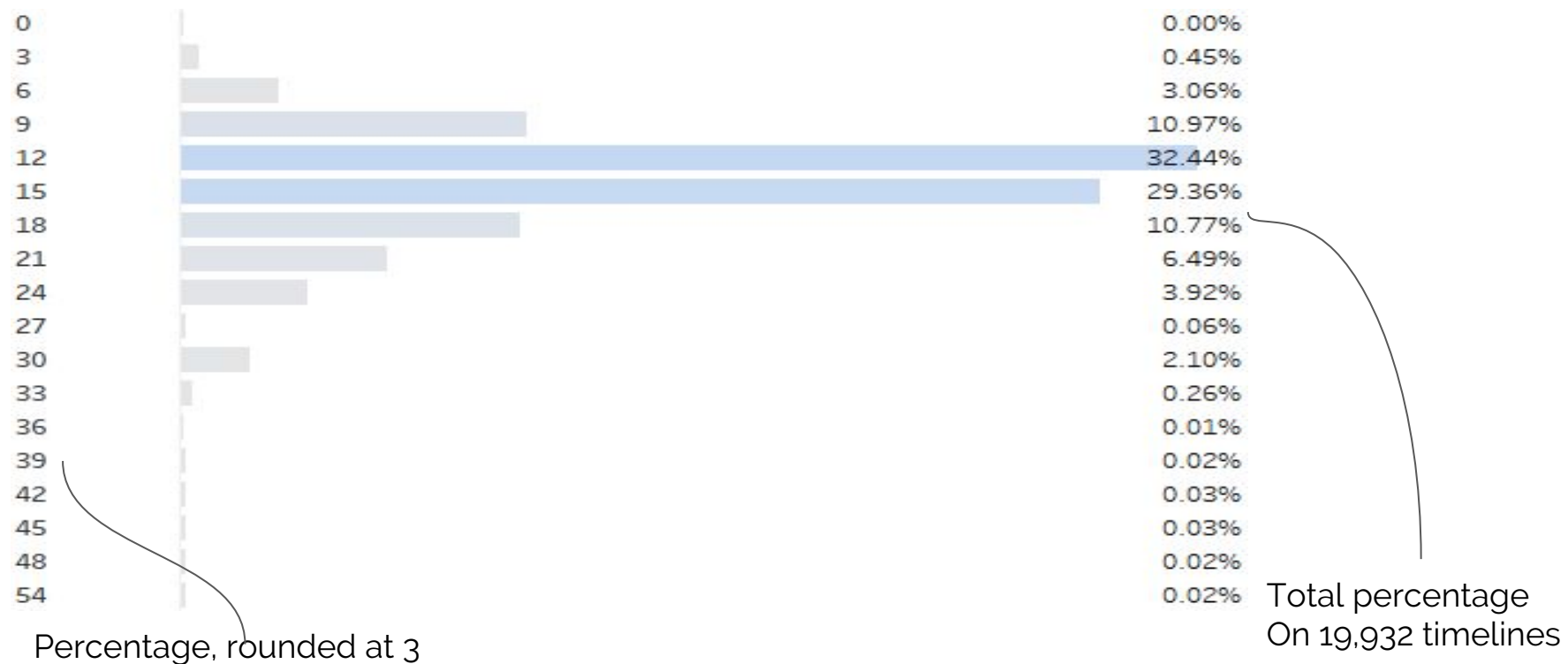
Considering only timelines with > 5 impressions

# Percentage of advertising per timeline, April 2018



Considering only timelines with > 5 impressions

# Percentage of advertising per timeline, May 2018



<https://github.com/tracking-exposed/facebook/blob/master/mongo-scripts/wolfie.js>

"We are committed to do our best for transparency in political advertising"

- Facebook since Russian interference investigation

October 2, 2017

## Improving Enforcement and Transparency of Ads on Facebook

*By Joel Kaplan, VP Global Public Policy*

Last month we announced plans to share with Congress the ads that appear to be from a Russian entity known as the Internet Research Agency. We found more of these ads, which ran between 2015 and 2017. Many appear to amplify racial

October 27, 2017

## Update on Our Advertising Transparency and Authenticity Efforts

*by Rob Goldman, VP of Ads*

When it comes to advertising on Facebook, people should be able to tell who the advertiser is and see the ads they're running, especially for political ads.

April 6, 2018

## Making Ads and Pages More Transparent

*By Rob Goldman, VP, Ads and Alex Himel, VP, Local & Pages*

We believe that when you visit a Page or see an ad on Facebook it should be clear who it's coming from. We also think it's important for people to be able to see the other ads a Page is running, even if they're not directed at you. That's why today we're announcing

October 16, 2018

## Increasing Transparency for Ads Related to Politics in the UK





Jake Creps  
@jakecreps



To everyone wondering what the future is for #OSINT on Facebook, look what I just found. It looks like Facebook has some plans for us.



## Manager, Anti-Scraping Facebook

📍 Menlo Park, CA, US

Posted 14 days ago · 81 views

Save

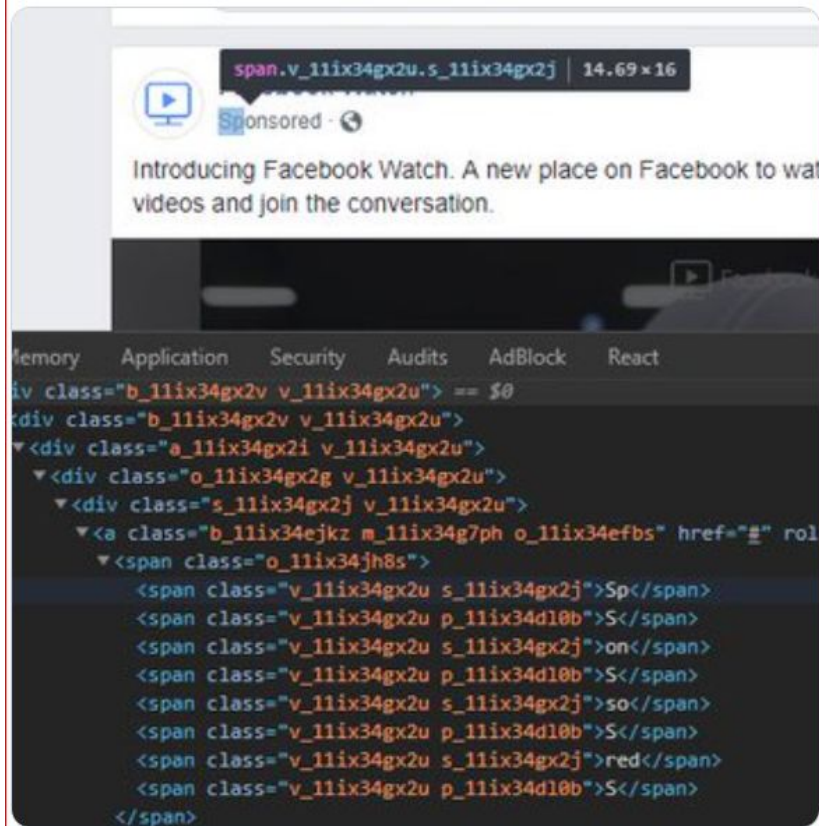
Apply



Aaron Rieke  
@aaronkrbr

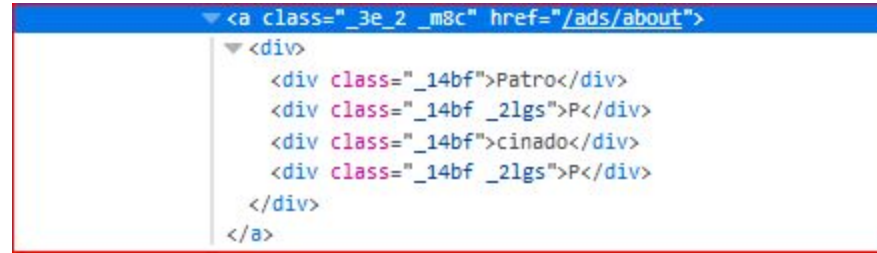


markup horrors of the ad blocker wars



# worse than what it looks like

- The string is hard to be match but not so hard
  - (since > 1 year)



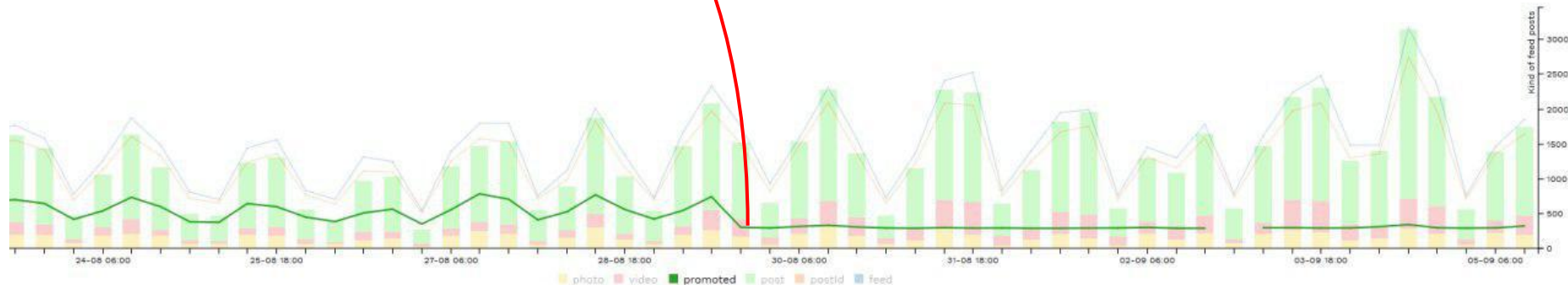
```
<a class="_3e_2 _m8c" href="/ads/about">
  <div>
    <div class="_14bf">Patro</div>
    <div class="_14bf _2lgs">P</div>
    <div class="_14bf">cinado</div>
    <div class="_14bf _2lgs">P</div>
  </div>
</a>
```

- But now **every posts** contain it as deception, to hide the truly *Sponsored* posts

# This is what a **bad morning** looks like

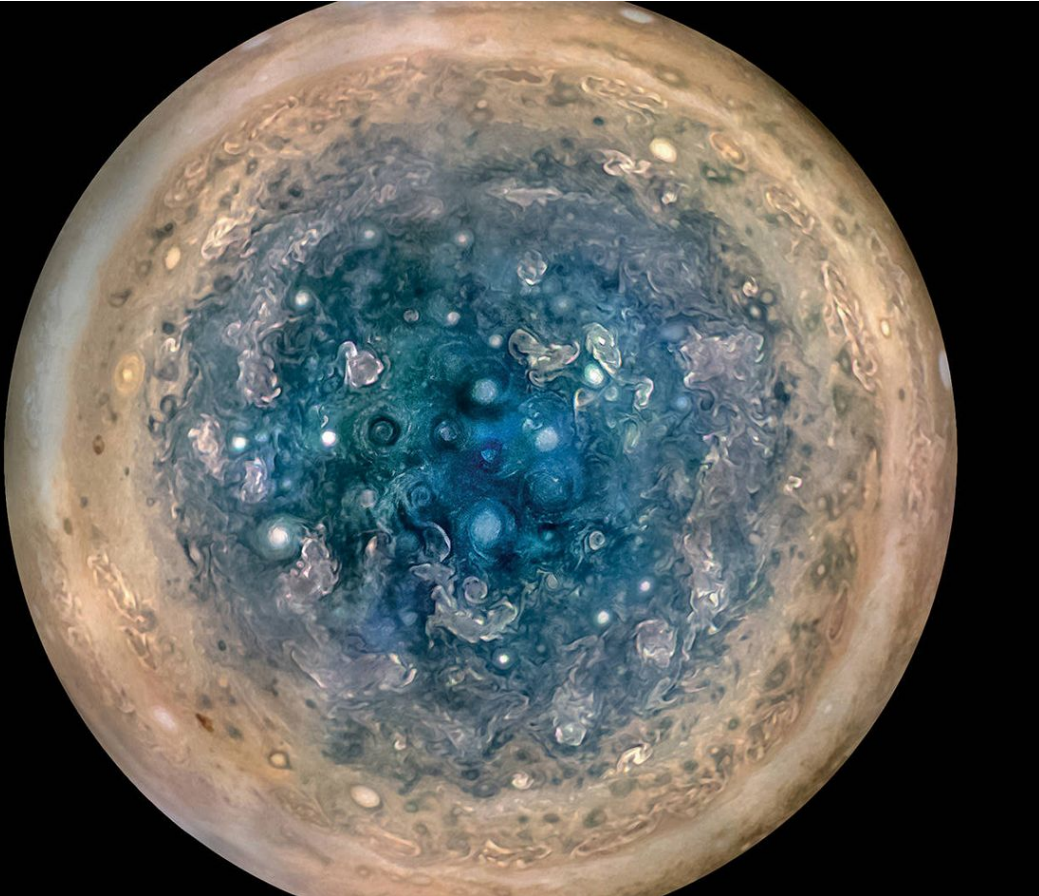
## Metadata available

The analysis is made by the parser, try to see how they works



<https://facebook.tracking.exposed/stats>

# corner case for free software



- web-extension: GPL
- backend: AGPL
- RSS service: GPL
- parser pipeline: ???

Algorithms might take the  
shape of another  
form of oppression

Sorry! we will have hard time ahead



## Elections Canada will use AI to fight disinformation on social media

By [Charlie Pinkerton](#). Published on Nov 2, 2018 3:51am

4,091 views | Jul 18, 2018, 01:22am

## This Google-Funded Company Uses Artificial Intelligence To Fight Against Fake News

## In the fight against fake news, artificial intelligence is waging a battle it cannot win

By [Dave Gershgorn](#) • November 22, 2016

## Artificial intelligence as tool to fight fake news, social bots in Brazil's elections

by [JESSICA CRUZ](#) • Jun 11 in [MISCELLANEOUS](#)

## Facebook just bought an AI startup to help it fight fake news



by [MATTHEW HUGHES](#) — 5 months ago in [ARTIFICIAL INTELLIGENCE](#)

## Using AI to Fight Disinformation in European Elections

---

WEDNESDAY, FEBRUARY 20, 2019 - 9:00 AM TO 10:30 AM CET

## algorithm diversity

Fully empowered  
Connected citizens

Anti-vaxxer, conspiracy  
theory, polarization

## Platform's algorithm hegemony

Imposed obscure  
non-accountable  
values

Some kind of content  
verification

# Critical thinking

We consider critical thinking the most important element of an healthy relationship with technology.

It pushes us to search for answers and allows us to question the world around us, instead of just accepting the status quo.



**Simple, *stateless*, tools**

**For algorithmic literated  
people**

# An opportunity ahead, May 2019



<https://github.com/tracking-exposed/presentation/blob/master/European%20Election%20action%20plan%20-%20v1.3.pdf>

# The greatest gift to facebook...

- Politicians prefer social media because they *believe to be* disintermediated
  - They contribute to make SM more valuable
  - And potentially for the platform to exert more influence

# Special answer for **EU2019**

- <https://facebook.tracking.exposed/feeds>
  - Unstable, and still and incomplete concept
  - the simplest **algorithm**





# ambitious plans ahead



activists, social  
media campaigner

[facebook.tracking.exposed](#)  
[tracking.exposed](#)

UX designer

Business developer,  
Project officer

[youtube.tracking.exposed](#)

( not even an  $\alpha$  )

Nodejs or python  
programmers

Lawyers

Web-extension  
programmer

Fundraisers

mobile?  
**missing**, not for choice

Data scientists

# Thanks to

Alberto Granzotto, Andrea Raimondi, Arikia  
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Costantino Carugno, Cristina Kiki, Diego  
Candido, Federico Sarchi, Giovanni Civardi, Luca  
Corsato, Raffaele Angus, Riccardo Coluccini,  
Sophia Carleson, Stefania Milan.



# references



- Eduardo Hargreaves, Claudio Agosti, Daniel Menasche, Giovanni Neglia, Alexandre Reiffers-Masson, and Eitan Altman. [Fairness in online social network timelines: Measurements, models and mechanism design. \*Performance Evaluation\*](#) (2018). DOI:10.1016/j.peva.2018.09.009 ([arXiv](#))
- Eduardo Hargreaves, Claudio Agosti, Daniel Menasche, Giovanni Neglia, Alexandre Reiffers-Masson, and Eitan Altman; [Biases in the Facebook News Feed: a Case Study on the Italian Elections](#), Fosint-SI 2018, in conjunction with ASONAM 2018, Proceedings of the 2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining ([ASONAM](#)) DOI:10.1109/ASONAM.2018.8508659
- Eduardo Hargreaves, Daniel Sadoc Menasché, Giovanni Neglia, and Claudio Agosti, [Visibilidade no Facebook: Modelos, Medições e Implicações, in: Proceedings of the Brazilian Workshop on Social Network Analysis and Mining \(BraSNAM\)](#). Natal, Rio Grande do Norte, Brasil. Julho, 2018 ([file](#))
- TacticalTech publish a report written by Claudio Agosti and Fabio Chiusi, on [Italian political election and digital propaganda](#). fbTREX data, released in [this repository](#), have been used in a portion of the report.
- WebFoundation released a report produced by a joint collaboration (Argentina, in English and Spanish): [The invisible curation of content](#).
- Our repositories: <http://github.com/tracking-exposed/>
- English coordination chat: <https://chat.securitywithoutborders.org/community/channels/trackingexposed>
- Telegram channel for status updates: <https://t.me/fbTREXupdates>
- [we have to kill medium, but until do not happen]: <https://medium.com/@trackingexposed>

**Manifesto** <https://tracking.exposed>