



Politechnika
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Does Polish Twitter support #abortion ?

How different from reality is what you think about
controversies in social media?



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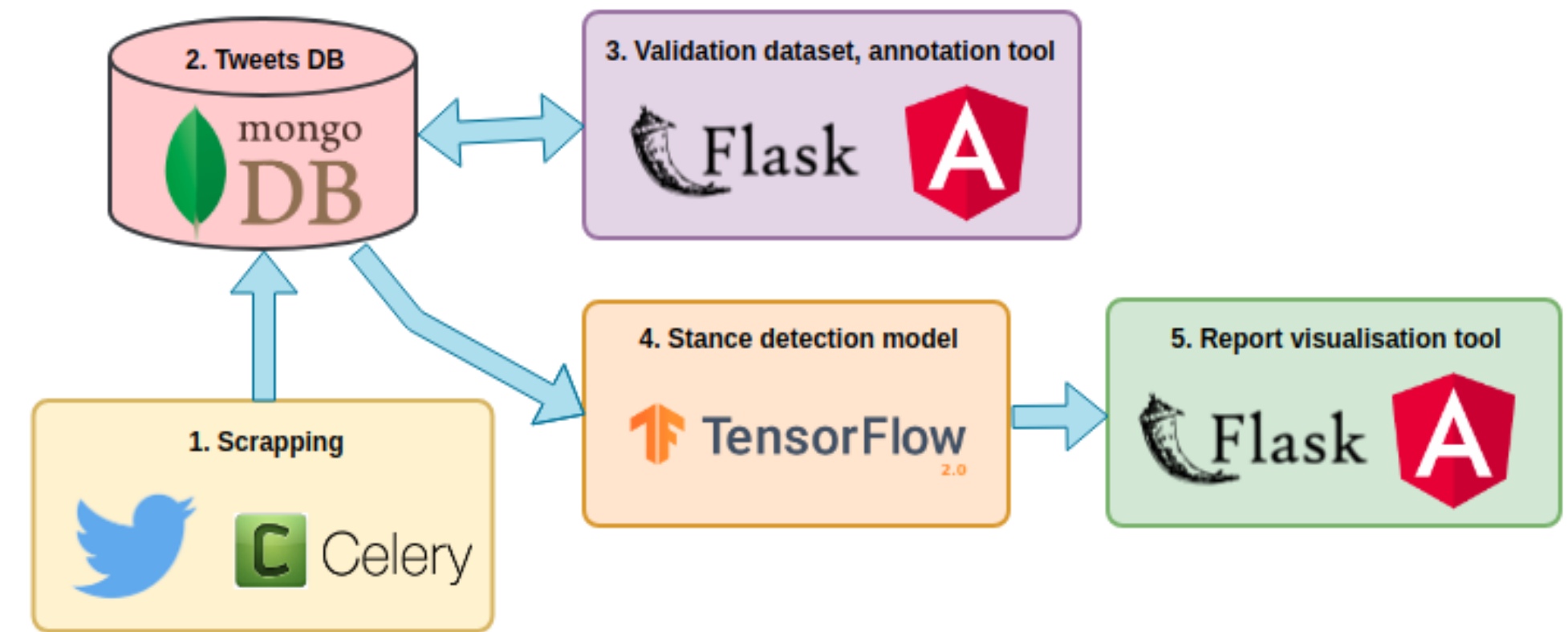
Marcin
Wątroba

The aim: examine distribution of support for a specific, politics related, controversial topic basing on Twitter.

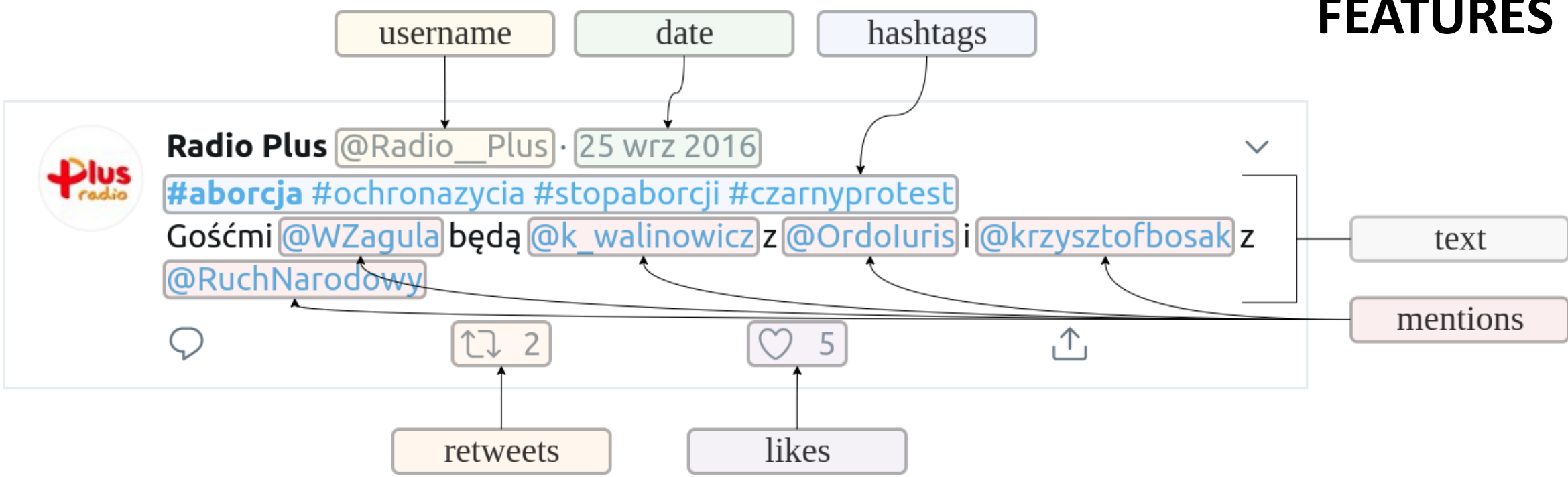
Our case: #abortion. We elaborated a **natural language processing** model for **stance detection** in Polish. The final outcome is a pipeline for data acquisition, model training and **automatic analytical reports** preparation with web app at the end.

Generic pipeline

Give us any topic you want. We will scrap related tweets, annotate training set and automatically generate reports for you!



Dataset



TOP HASHTAGS

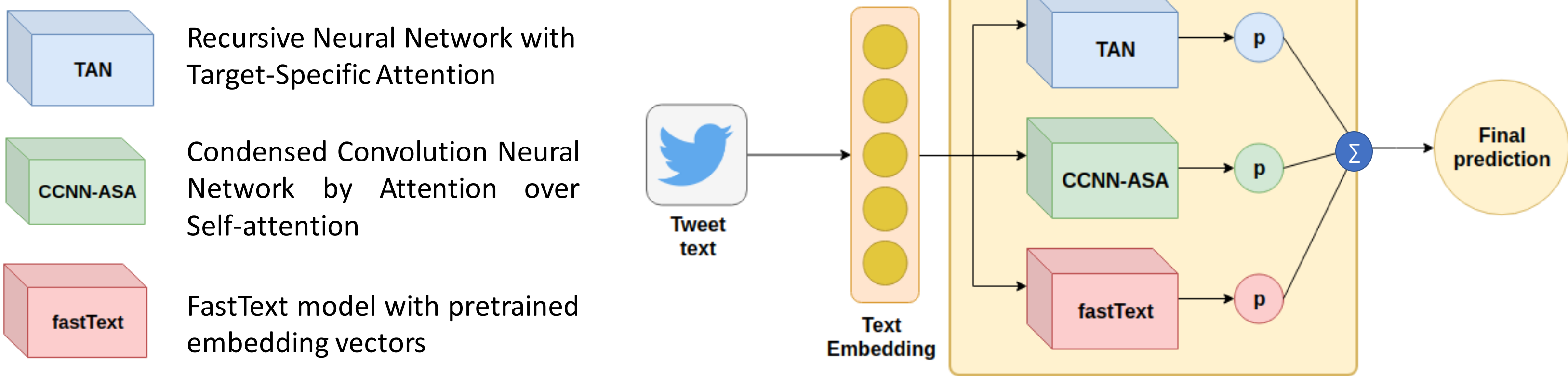


33,000 tweets scrapped from October 2009 to November 2019, hashtags: #aborcja, #czarnyProtest, #stopAborcji, #ratujmyKobiety, #zatrzymajAborcje

2,000 manually annotated tweets, 4 annotators, Cohen's Kappa coherence equals **0.66**

SUPPORT, AGAINST and **NEITHER** stance labels assigned

Stance detection model

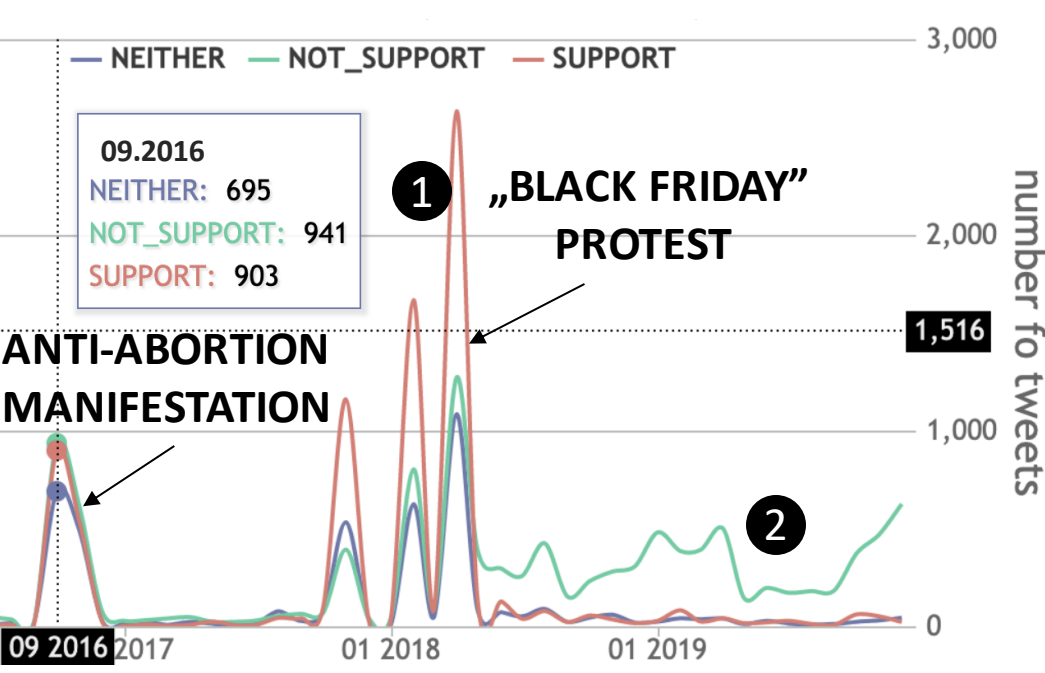


Prediction metrics

	ACC	F1	PREC	REC
fastText	0,734	0,654	0,691	0,643
CCNN-ASA	0,777	0,727	0,743	0,722
TAN	0,774	0,738	0,738	0,740
Ensemble	0,802	0,755	0,784	0,745

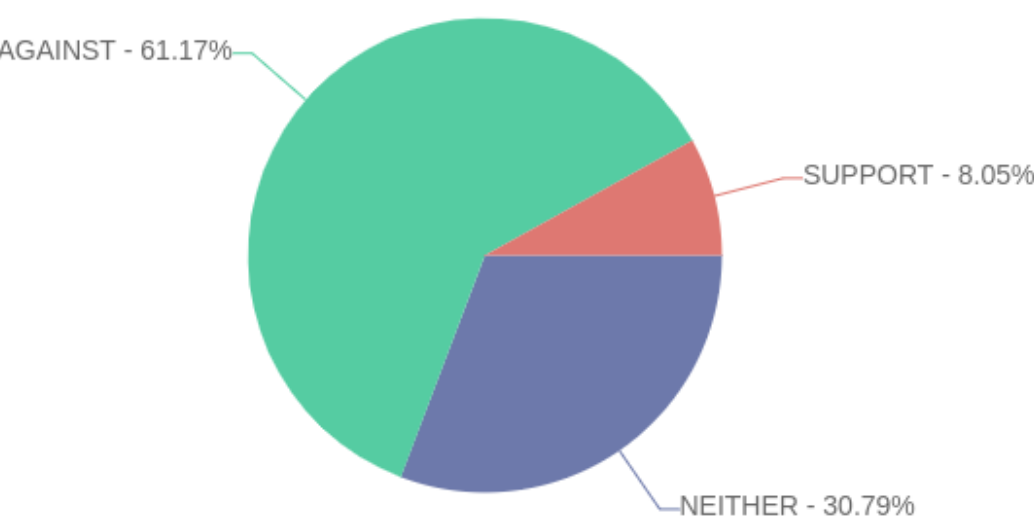
Behind the data there is a story...

When was tweeted ?



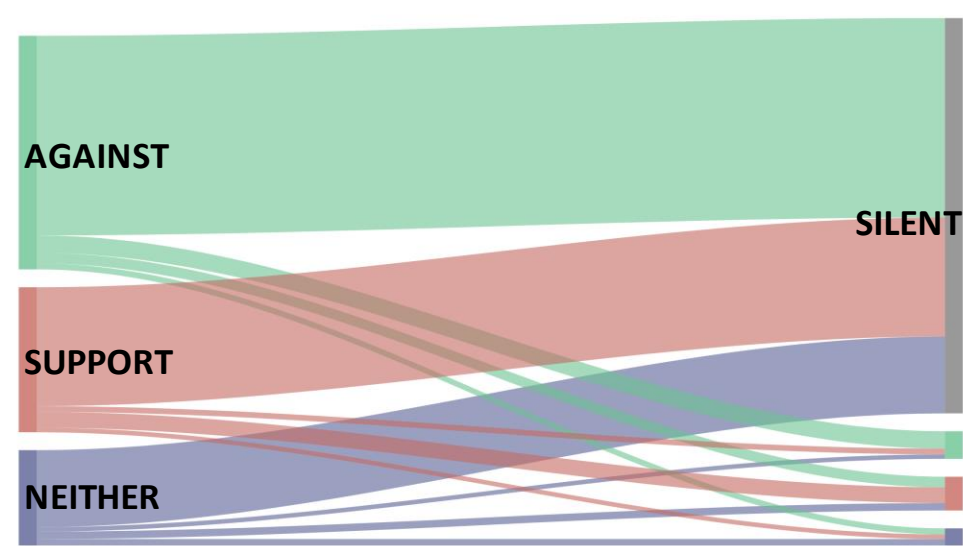
① Pro-abortion events imply strong but short activity. ② Against-abortion movements are constantly active since „Black Friday”.

What's the stance ?



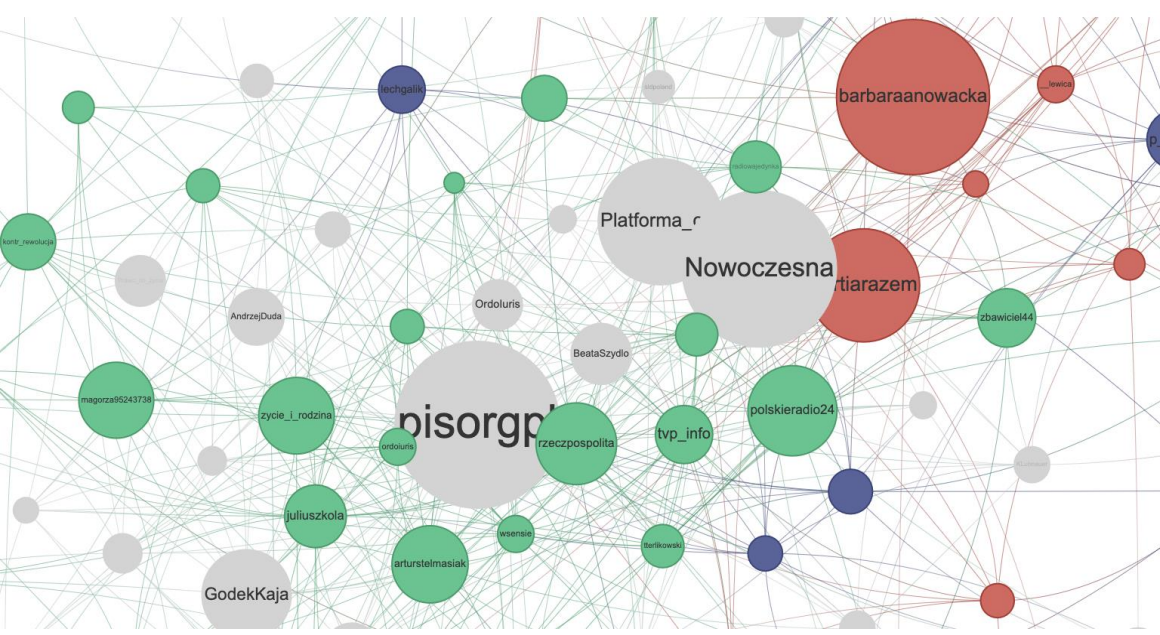
Now, look at the breakdown of users per stance category. Despite more pro-abortion happenings, the vast majority of users were classified as opposed to abortion. Surprising, huh?

Who mentions who?



Okay. So was there a battle between abortion supporters and opponents? In the public debate opposite sites did not cite each other so often and rather referred to „silent” users.

Who influences all?

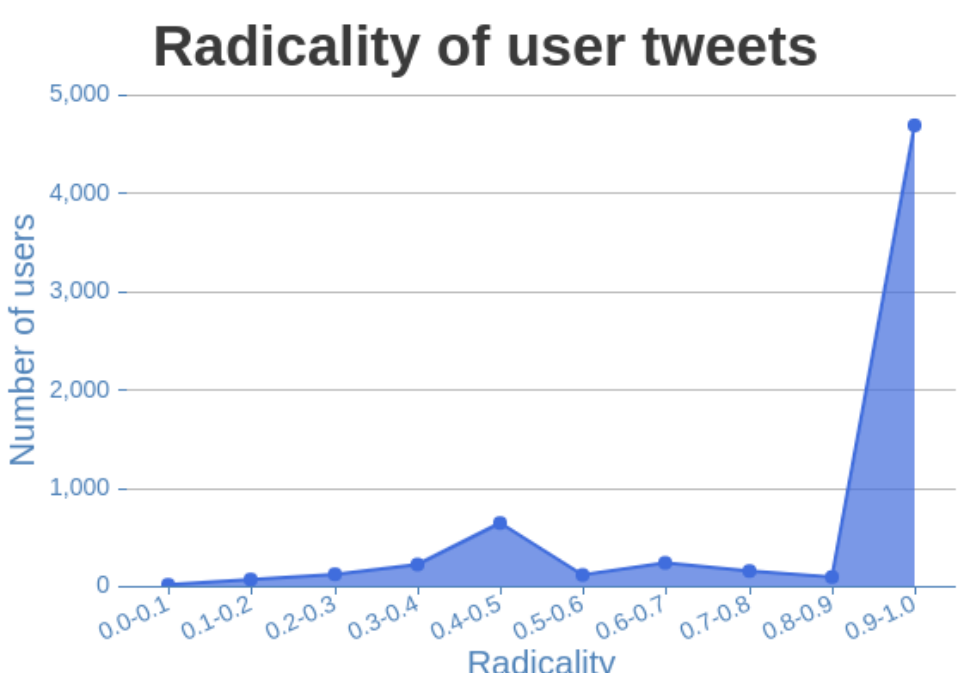


Supporters and opponents focus mostly on "silent" political parties, NGOs and activists marked with gray color. Can you trace them all in our network? That's not the end of the story. Visit our website for more!

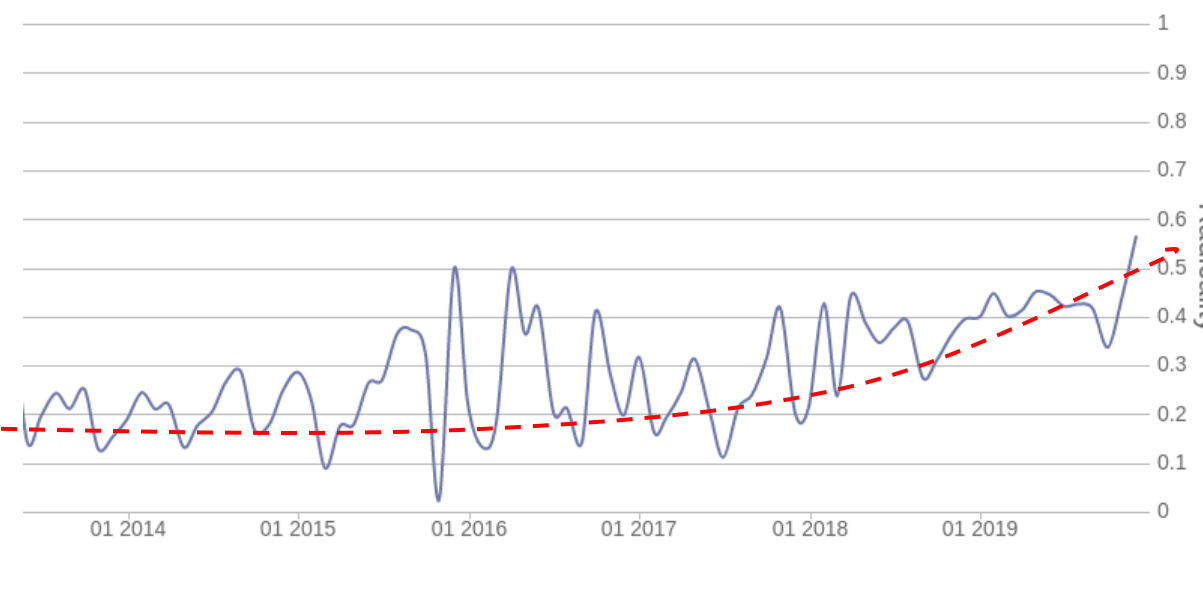
Are we getting radical?

Most of users have very strong opinion on abortion. However, there is a group of users in the middle of the field, who are perfectly between undecide and radicality.

Curious about radicality of particular media (radios, websites, TV stations)? Check our website!



Abortion tweets radicality over time



Radicality increases over time.

Final outcomes

- Abortion opponents remain very active since "Black Friday"
- Abortion supporters become active just before events
- Radicality increases over time
- There is no discussion about abortion, but about parties NGOs and activists



Far more on ...

ControversiAl.edu.pl