Political Accountability Foundation

Polish 2020 Presidential Election(s) Campaign Amid the COVID-19 Pandemic

Social Media Monitoring

Final report

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2. INTRODUCTION

On February 5, 2020, the Speaker of the *Sejm* (lower house of the Parliament) ordered the election of President of the Republic of Poland to be scheduled for May 10, marking the beginning of the election campaign. A month later, on March 4, the first case of SARS-CoV-2 was reported in Poland and on March 14 the government introduced a state of epidemic danger followed by the announcement of the state of epidemic on March 20. Despite the fact that Constitution stipulates possibility to imposed state of emergency in such situation and, as a consequence, adjournment of election, such solution has not been implemented by the government nor the parliament, and the date of voting remained unchanged. Nevertheless, along with the state of epidemic a large scope of restrictions of civil rights was introduced serving as a particular background for the then-ongoing election process, impacting, among others, the possibility to carry out the election campaign. In particular, restrictions to freedom of assembly – limiting mass gatherings initially to 50 then to just two people, meant that nearly all campaign activities have had to be moved to the media, especially social media. This situation has been heavily criticised by the opposition candidates and media outlets not-related to the government.

In addition to the above-mentioned restrictions, legislative changes to the electoral law, introduced ahead of the election day, caused uncertainty with regards to the way and time of voting. The changes were related to, among others, the introduction of voting solely by mail, and transferring some of the responsibility for the preparation of the election from the National Election Commission (NEC) to state ministries. In the end voting did not take place on election day as ballot papers were not distributed and precinct election commissions were not established.

Consequently, on June 3, 2020, the Speaker of the *Sejm* ordered the second/new election of President of the Republic of Poland to be scheduled for June 28, marking the beginning of a new election campaign. Eleven candidates ran for the position and none of them received more than the required 50% of votes during the 1st round, which resulted in a 2nd round of voting on July 12, with those two candidates, who received the highest number of votes during the first round.

All candidates who were registered for the first (May 10) election could compete during the second (June 28) election with no additional requirements imposed, while new candidates were obliged to register their candidacy following the procedure established in the Election Code. However, according to new regulations, new candidates received a lower limit on campaign spending. Even though campaign finance is not the subject of this report, it is worth noting that lower spending limits for new candidates could have had an impact on their campaign strategies, including their presence in social media.[1] One new candidate, Mr. Trzaskowski, from Koalicja Obywatelska (KO), was a a replacement for Ms. Kidawa-Błońska, (same coalition), and the second new candidate, Mr. Witkowski, has been newly registered.

Social media monitoring

The main idea of social media monitoring, in particular Facebook (FB), was to assess what was the form of the campaign in social media, what types of information were posted, what impact posts could have on support for a candidate and if social media have been used by candidates as an important platform to share their programs and information with potential voters.

Facebook is the second most popular social media platform in Poland, just behind YouTube, and is used by 89% of social media users.[2] Nevertheless, traditional media, like TV or newspapers, are the

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[1] According to the regulations, new candidates could spend on campaign 50 percent of the usual amount regulated by Electoral Code, while candidates contesting during the first election had right to 100 percent of the amount in total.

[2] https://datareportal.com/reports/digital-2020-poland

main source of information for the majority of listeners - some 80 percent watching TV, and the main source of information are still TV and radio stations, and printed media. However, one should notice, that there is a significant difference depending on age of the group – Internet is a source of information for over 35 percent of those in group up to 45 years old, while only for 13 percent of those in group above 46 years old.[3] This indicates that younger voters can be reached via social media rather than older ones.

Monitoring of the election campaign on Facebook has been conducted during the first and the second election, however, while statistical/quantitative data has been observed across the whole period between March 26 and July 12, allocation of narratives has NOT been conducted in the period between the first election day, May 10, and the day of the candidate registration deadline for the new election, on June 10.

During the period of 110 days of two presidential elections, from March 26 till July 12, total of 104 097 posts on Facebook were statistically analysed and 30 909 posts were used for qualitative assessment.[4] The monitoring has focused on three different groups of election process' stakeholders, totaling 50 accounts: all 12 presidential candidates, 17 media outlets, 18 potential disinformation outlets (later referred to as *fringe* outlets) and, partly, three fact-checking outlets during the first election. It was modified for the second election to include accounts of all 11 presidential candidates, 14 media outlets and 13 *fringe* outlets. The selected accounts reflect a wide spectrum of opinions expressed in Poland and offer an opportunity to identify what kind of content is promoted by the so-called *fringe outlets*, that have been known to be potential sources of disinformation or *fake news*.

This final report should be read in conjunction with the two short reports which were published as summaries of observation after the first (May 10) election[5], and after the second (June 28/July 12) election.[6]

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[3] Report prepared for Krajowa Rada Radiofonii i Telewizji by Indicator Centrum Badań Rynkowych in 2015: http://www.krrit.gov.pl/Data/Files/_public/Portals/0/publikacje/analizy/roznorodnosc-tresci-informacyjnych-w-polsce.pdf
[4] See the Methodology section for more information on how posts were chosen for qualitative analysis.
[5] http://odpowiedzialnapolityka.pl/wp-content/uploads/2020/05/SMM_Poland_shortreport_finalfinal-1.pdf
[6] http://odpowiedzialnapolityka.pl/wp-content/uploads/2020/07/SMM_ShortReport-II-_final.pdf

3. HIGHLIGHTS

- Facebook (FB) was an important channel for candidates in their communication with voters – its importance during both 2020 Presidential elections was only exacerbated by the pandemic situation which led to the introduction of restrictions on physical campaigning. **Some candidates managed to increase their number of followers more than three times during the campaign period.**

- The level of **activity of media outlets on FB is incomparably higher to that of candidates**. This might be a result of the resources available to media, and the wider spectrum of topics media outlets are communicating to users. Out of the total number of posts published on Facebook, only five percent came from candidates, while 60% from mainstream media outlets and 35% from *fringe* outlets.

- Restrictions imposed on freedom of movement and freedom of assembly due to COVID-19 pandemic during the first election (March 26 – May 10) **forced presidential candidates to run their campaign mostly via traditional and social media**. With limited access for opposition candidates to public TV and radio, it made social media the main channel for communication with voters for some of the candidates. Despite the gradual lifting of restrictions during the second presidential campaign, social media remained an important communication channel. The average daily number of posts per candidate during the second election was nearly twice as high (7.68) as during the first election (3.83). This could be explained by a much shorter campaign period for the second election (24 vs 45 days) and the general belief among candidates and voters that the second election will actually take place.

- **The COVID-19 pandemic dominated the presidential campaign during the first election**, leaving limited space for other issues. Very radical drop in interest in COVID-19 issues during the second election (from nearly 18% during the first election to some 1% in all candidates' posts) could be a response to the government's messaging that the epidemic was retreating. The effectiveness of this message was also reflected in the high turnout during the second election[7] and a very low interest in postal voting among voters[8].

- Three candidates, R. Trzaskowski, Sz. Hołownia and K. Bosak, who had the highest number of posts, managed to significantly increase their group of followers on Facebook during the campaign period (even threefold); however, the example of R. Biedroń or the incumbent president, A. Duda, who had a high number of posts but did not manage to increase their number of followers, show that activity on FB is not the only important factor in attracting followers.

- **The incumbent president changed his campaign strategy for the second election** and undertook more efforts to increase his visibility on FB. This change did not have a significant impact on his "attractiveness" on FB but overall, his limited ability to attract followers on social media proved not to be an obstacle for his victory.

- The number of likes per post was significantly correlated with the increase in the number of followers, increasing the impact on potential voters – R. Trzaskowski, with the highest number of likes per post, 8 333, was also the leader in expanding his group of followers.

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[7] With 64,51% during the first round and 68,18% during the second round, the second Presidential election of 2020 had the second highest turnout in modern Polish electoral history, exceeded only by the 1995 Presidential election.

[8] During the first round only 1% of voters voting in Poland chose postal voting as their preferred method of voting. The figure is significantly higher for out-of-country voting, however in this case postal voting was often the only available option. Source: https://prezydent20200628.pkw.gov.pl/prezydent20200628/pl/frekwencja/2/Koniec/pl

- In general, the candidates' relatively limited ability to reach wider audiences on Facebook, even during the peak of an election campaign, shows that **to succeed, they will have to diversify their channels of communication beyond social media to reach other voters**. A challenge that has been made even harder because of the COVID-19 pandemic.

- The importance of social media to spread campaign messages to voters seemed to depend on the demographic structure of the target group of voters – the incumbent president, whose voters are predominantly older generations, did not manage to attract new supporters through social media, despite his significant activity on FB.

- **No significant presence of hate speech or black PR has been noticed**. Findings show that posts that could be labelled as '*discreditation of political opponents*' were present in less than five percent of total posts, and in less than two percent of posts from candidates. This was especially noticeable during the 2nd round of the second election, where there was a radical decrease in the number of posts with this label. The latter is especially interesting given the competitive nature of any second round of elections – the absence of a rhetoric aimed at shedding a negative light on one's main opponent could mean that at this last stage of campaigning the two main candidates were mostly focused on increasing their voter base by **appealing with their own electoral programmes to those voters who do not usually participate in elections**, instead of trying to steal voters from their opponent.

- The tone of candidates' posts was predominantly neutral, with a low share of negative messages. Especially the two final candidates during the 2nd round of the second election focused more on positive accents. On the other hand, **media outlets presented a very limited share of positive messages, having a visibly higher share of negative accents in posts**. This trend only increased during the second election.

- **Media outlets were very active on Facebook during the entire campaign period, publishing radically more posts than candidates** (some media outlets published more posts than all candidates combined). However, the quantity of posts did not reflect their value and attractiveness for FB users, which can be observed by looking at a lower average number of likes per post, compared to candidates.

- '*Fringe*' outlets, were relatively less interested in election related topics, except during the days immediately preceding the voting day, however, the issue of '*discreditation of political opponents*' played the most significant role comparing to two remaining groups of accounts – candidates and mainstream media – almost eight percent of posts discussed this issue.

- There were **no visible signs of any coordinated campaign** of 'external factors' during the election campaign. The activity of media having links to foreign powers, like 'Sputnik' was rather low, with no significant impact on the campaign.

- Almost one third of the top-liked posts were videos which shows that social media audiences are increasingly likely to engage with audio-visual content, even if consuming such posts takes more time than the consumption of other types of posts.

4. Who are the candidates?

- **Andrzej Duda**
Served as president of Poland since 6 August 2015. Before becoming president, Duda was a member of the Polish Lower House of Parliament (Sejm) from 2011 to 2014 and served as an MEP from 2014 to 2015.

On 24 October 2019, he received an official support from PiS party ahead of his re-election campaign in 2020. He won the first round and then went on to defeat Rafał Trzaskowski in the runoff with 51.03% of the vote.

- **Rafał Trzaskowski**
Current Mayor of Warsaw (since 2018). He served as a Member of the European Parliament (2009–2013) and in the Polish government under Donald Tusk.

In May 2020, Trzaskowski became Civic Platform's candidate for President for the second (June 2020) election, replacing former candidate, Małgorzata Kidawa-Błońska. He lost to the incumbent Andrzej Duda in the second round receiving 48.97% of the vote.

- **Szymon Hołownia**
Journalist, television personality, and humanitarian activist. From 2008 to 2019 he co-hosted Mam talent!, the Polish version of Got Talent, he has authored twenty books on social issues and religion. In the 2020 Polish presidential election he received 13.9% of total votes, coming third out of eleven candidates. After the election, he announced the formation of a new political movement called Poland 2050 Movement.

- **Robert Biedroń**

He was a member of the Sejm (2011-2014), then the mayor of Słupsk (city in Northern Poland) from 2014 to 2018. In February 2019 he launched a new political party called Spring and was elected as Member of the European Parliament in 2019. He is one of the three leaders of The Left (Lewica), a political alliance. He is one of the few openly gay politicians in Poland.

- **Krzysztof Bosak**
A far-right Polish politician. He was a member of the Sejm for the League of Polish Families from 2005 to 2007 and then again since 2019, this time representing the Confederation party. Bosak was the chairman of the All-Polish Youth from 2005 to 2006 and was one of the founders and is the current vice-chairman of the National Movement.

- **Małgorzata Kidawa-Błońska**
Film producer and sociologist. Member of Civic Platform. Deputy Speaker of the Sejm since 2015. She served in the cabinet of Donald Tusk (2012–2014) and Ewa Kopacz (2014–2015), she was also the Spokeswoman for both cabinets in 2014 and 2015. She was the Civic Platform nominee for Prime Minister in the 2019 Polish parliamentary election, losing to Law and Justice incumbent Mateusz Morawiecki. Kidawa-Błońska resigned her candidacy before the second presidential election and was replaced by Rafał Trzaskowski.
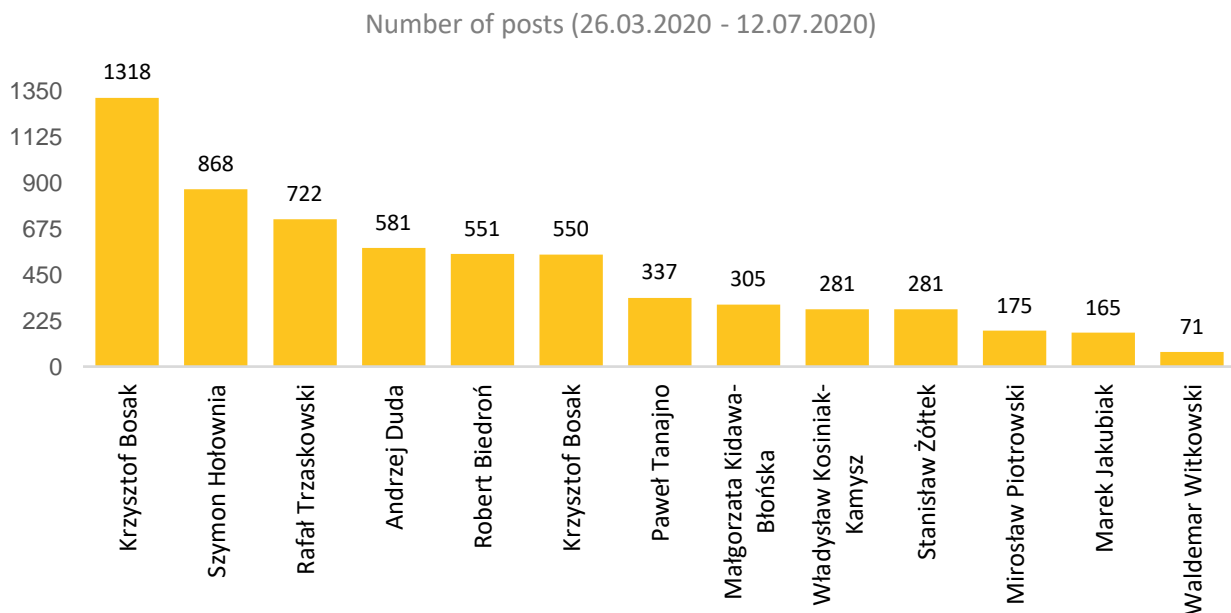
5. Activity of candidates

The activity of candidates on Facebook was rather noticeable, especially when it comes to the more 'mainstream' candidates.

K. Bosak was the most active candidate, with 1.318 posts, standing for 23 percent of all candidates' posts. Sz. Hołownia, with 868 posts (15 percent of candidates' posts), and R. Trzaskowski, with 722 posts (nearly 13 percent of candidates' posts), followed him closely. The FB activity of these three candidates amounts to over 50 percent of all candidates' posts.[9] A. Duda (with 10 percent of posts), and all other candidates, were significantly less active on Facebook.[10] [details in *Graph #1*]

Graph #1*: Number of posts per candidate (the entire monitoring period)*

Number of posts (26.03.2020 - 12.07.2020)

However, the generally high activity of candidates cannot match the hyperactivity seen on profiles of some media outlets, especially ones from the *fringe* group, like *Sok z Buraka* or *Regionalna Polska* but also from mainstream media, like *Niezalezna.pl*, *TVN24* or *Wirtualna Polska*. [see *Graph #3*] This is even more visible when we compare the share of posts of each monitored group - posts from all 12 candidates, who, one would argue are the key actors of an election campaign, amounted to just 5 percent of all monitored posts.

Graph #2*: Number of posts per group of accounts*

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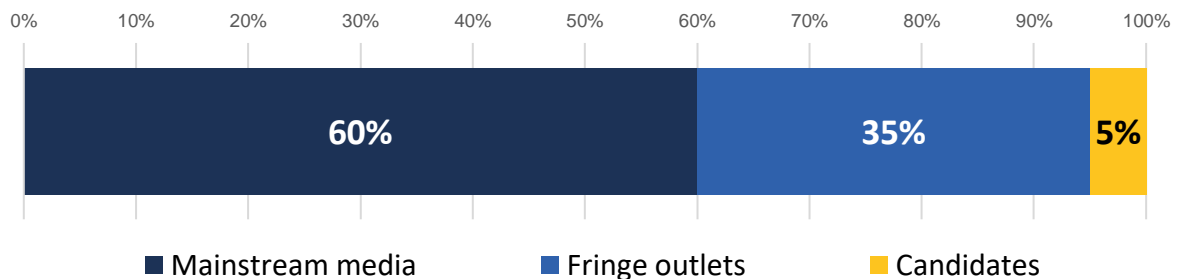
[9] R. Trzaskowski became an official candidate on June 10 only.
[10] K. Bosak and R. Trzaskowski were the two candidates who have two separate and independently active FB accounts: private one and one of their election committee - we have analysed them separately in general, however, they were combined in some charts and numbers.

These differences are even more visible when we compare the number of posts per day. The most active, K. Bosak, made on average 12 posts per day across the whole monitoring period, Sz. Hołownia almost 8 posts, R. Trzaskowski over 6 posts and A. Duda over 5 posts. At the same time *Sok z Buraka* or *Niezależna.pl* had 81 and 61 posts per day respectively. However, based on the analysis of other data, this enormous activity of media outlets did not reflect the impact these media had on users (this will be elaborated in next parts of the report).

Table #1: average number of posts per day in a given period

Candidate	1st Election (March 26 – May 10)	2nd Election I round	2nd Election II round	The whole campaign (average)
A. Duda	1	9	13	5
K. Bosak	11	16	-	12
R. Trzaskowski	3	10	14	7
Sz. Hołownia	8	10	-	8

It is interesting to look at the changes in level of activity of some candidates in different periods of the election campaign. It is especially visible in relation to the activity of the incumbent president, A. Duda as well as of R. Trzaskowski, the mainstream candidate who joined the race during the second election. [see *Table 1* above]

Graph #3: Number of posts per candidates and selected media and fringe outlets (the whole period monitored)
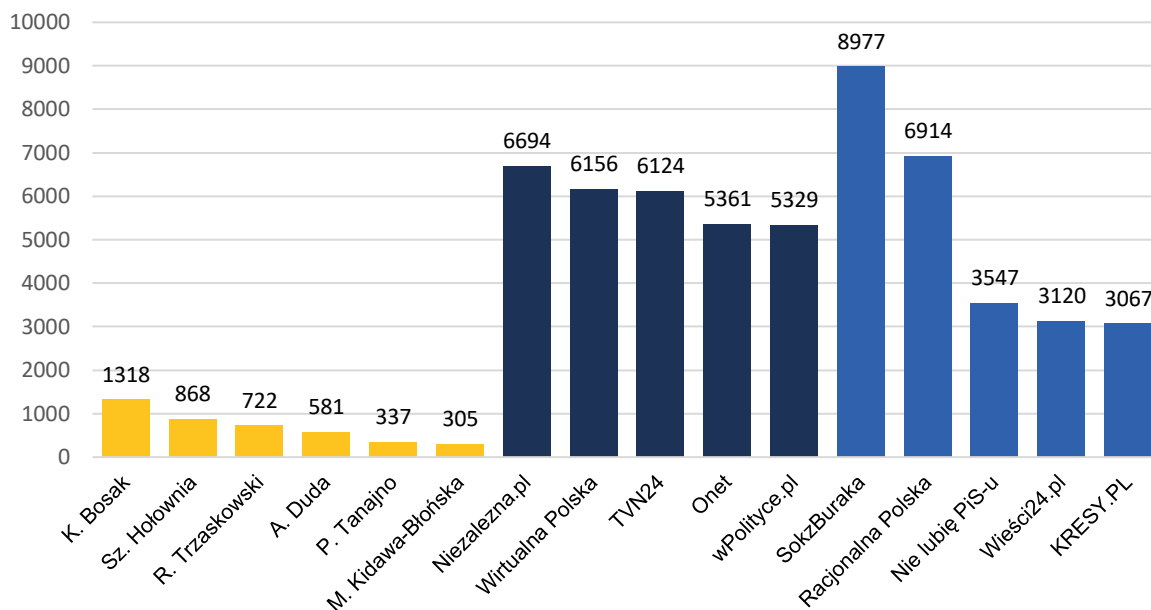
One can conclude that the incumbent president, A. Duda, realised in the course of his campaign that presence in social media could be a significant factor for a successful campaign. Initial difference in the approach to social media between A. Duda and the three other main candidates could be a result of differences in the target group of voters. A. Duda's electorate is, on average, much older than the electorates of the three other candidates, hence, he decided not to focus on social media so much in the beginning of his campaign.

Another reason for such a strategy change could be the different situation the incumbent president found himself in heading into the second election. While during the first election and ahead of the second one, A. Duda was the clear leader in the polls[11] (partially due to the fact that main opposition candidate - M. Kidawa-Błońska's decision to boycott the election), in the run up to the second election, the gap between the President and the main opposition candidate, R. Trzaskowski, who stood in after M. Kidawa-Błońska's resignation, shrunk significantly. Furthermore, the same polling data shows that there was a real possibility of A. Duda losing to either R. Trzaskowski or Sz. Hołownia in the second round.[12] Growing support for Sz. Hołownia, K. Bosak, and especially R. Trzaskowski coupled with their extensive activity on FB, could have pushed A. Duda to intensify his campaign in social media too. Nevertheless, if other data is analysed, results of this strategy were not very significant [see next part of the report].

Research performed after the second election confirmed that younger voters, those who treat Internet and social media as their main source of information, voted for R. Trzaskowski or K. Bosak and Sz. Hołownia rather than for A. Duda. In the II round, over 63% of voters younger than 29 years old and almost 55% of voters in the 30-49 age group, supported R. Trzaskowski. On the other hand, voters older than 50 years old, supported A. Duda. During the I round, K. Bosak, Sz. Hołownia and R. Trzaskowski had the youngest supporters (among K. Bosak's supporters over 50% were people younger than 30 years old). [13]

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[11] https://oko.press/w-normalnych-wyborach-duda-z-holownia-w-ii-turze/
[12] https://oko.press/trzaskowski-48-proc-duda-44-proc-pis-moze-stracic-prezydenta-sondaz-oko-press/
[13] IPSOS surveys (https://tvn24.pl/wybory-prezydenckie-2020/wybory-prezydenckie-2020-sondazowe-wyniki-jak-glosowali-mlodzi-4635368); (https://noizz.pl/spoleczenstwo/wybory-prezydenckie-2020-jak-zaglosowali-mlodzi-18-do-29-lat-exit-poll-2020/2cegf3h?utm_source=duckduckgo.com_viasg_noizz&utm_medium=referal&utm_campaign=leo_automatic&srcc=ucs&utm_v=2)

6. Activity of media outlets

Activity of media outlets can easily be seen as the effect of a radically different approach to social media as well as a result of an incomparable number of resources available. In both groups of outlets (*fringe* and mainstream), the number of posts was few times higher than that for candidates. Among mainstream media outlets, 14 out of 17 each posted more messages than the most active candidate, Sz. Hołownia. The most active outlet, Niezależna.pl, posted more messages than all candidates altogether. [*Graph #4*]

Graph #4: *Number of posts per mainstream media outlets (the whole monitoring period)*
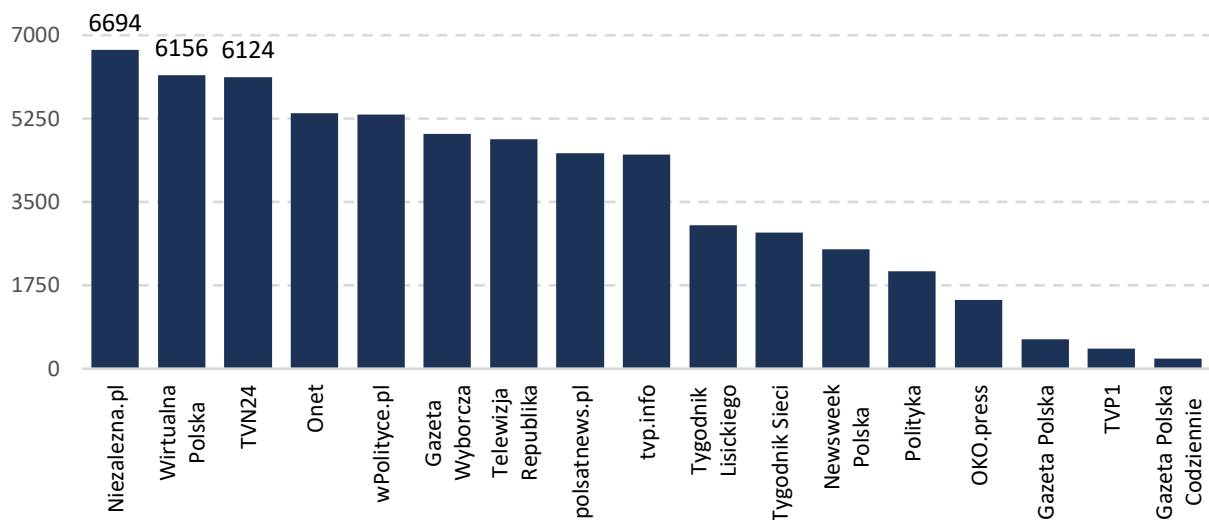
A similar situation can be observed among *fringe* outlets, however, in this group the majority of posts came from two 'leaders': *Sok z Buraka* and *Racjonalna Polska*, which were responsible for over 40% of all posts in this group. In this group, 11 out of 18 outlets published more posts than Sz. Hołownia, the most active candidate. [*Graph #5*]

***Graph #5***: *Number of posts per fringe media outlets (the whole period monitored)*
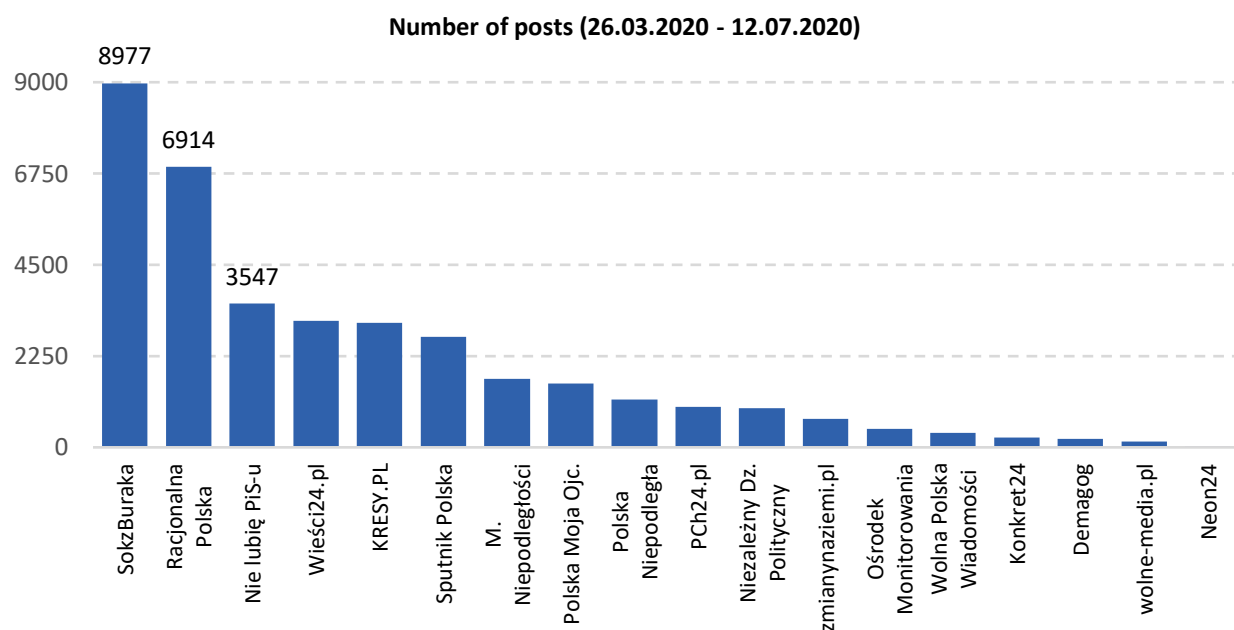
7. Users' reactions to posts

Reaction of users, measured as the number of likes and number of likes per post, was not directly correlated with a profile's activity in social media. Even if the number of posts on FB by media and *fringe* outlets is few times higher than the number of posts from candidates [*Graph #3*], the number of likes received is lower (with the exception of *Sok z Buraka*) [*Graph #6*].

Graph #6: *Total number of likes per candidates and selected media and fringe outlets in thousands (the whole monitoring period)*
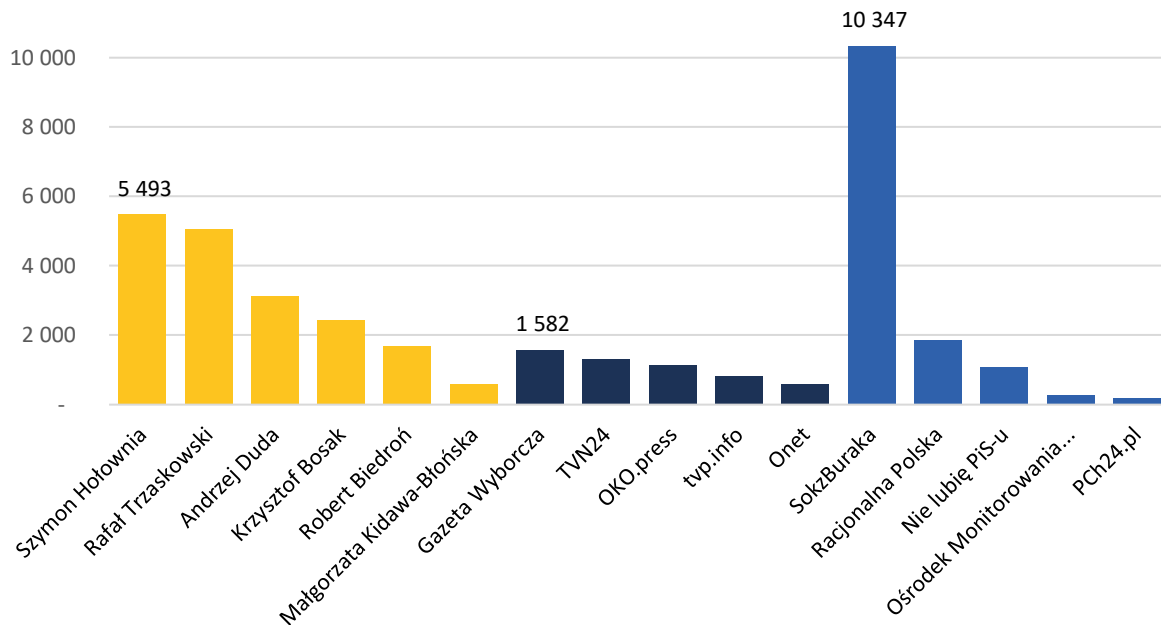

This is even more evident when the number of posts is compared with the number of likes per post – R. Trzaskowski, Sz. Hołownia or A. Duda had 5 to 8 times more likes per post than i.e. *Sok z Buraka* or *Racjonalna Polska*, which posted up to 10 times more messages during the whole monitoring period. [*Graph #6*] This may indicate that the overflow of information does not necessary result in high impact on the audience or that potential influence of those *fringe* media posting much more radical messages was rather limited. Detailed analysis of the character of messages posted on accounts of media outlets like *Sok z Buraka* or *Racjonalna Polska* (which had the highest number of posts) would provide us with a better understanding of the reasons for their popularity and their influence over the electoral process.[14]

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[14] Review of selected posts from these two mentioned accounts showed that the majority of messages were repeated from other sources, repeated several times in the same or in a very similar format or were just links to information posted on websites or social media channels of other actors. The share of own content, prepared by the owner of the account, was very limited.

Graph #7: *Average number of likes per post for candidates and selected media and fringe outlets (the whole monitoring period)*
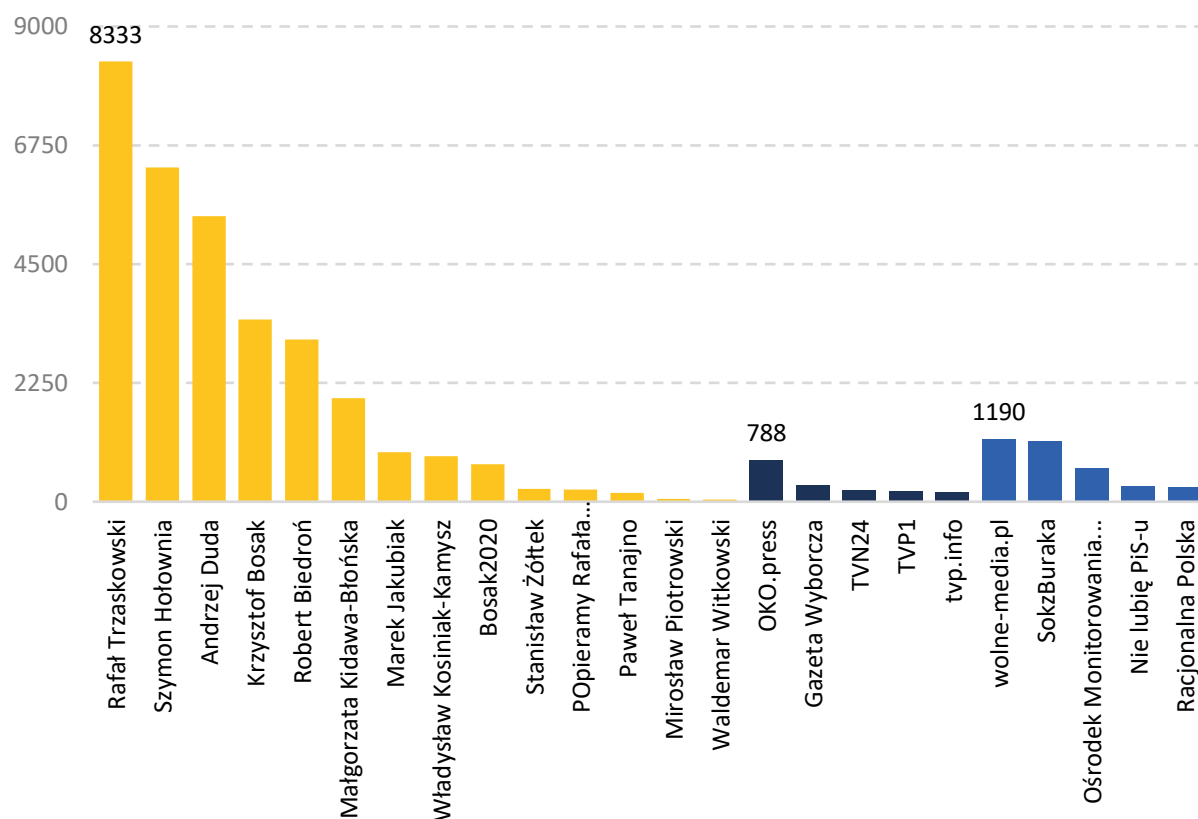
R. Trzaskowski's case shows that the number of likes per post his posts received increased 10 times from the time of the first election (when he was NOT a candidate) to the II round of the second election. This factor for A. Duda has slightly increased only (less than 2-fold). This may indicate that A. Duda was not gaining any new supporters during the whole campaign period (which is confirmed by another set of data in the next part of the report). Interestingly, all main candidates, who did not qualify to the II round, increased number of likes per post during the II round campaign. This may indicate that their voters were looking for advice on which of the two remaining candidates (A. Duda and R. Trzaskowski) they should support.

Table #2: *Average number of likes per post for main candidates in a given period*

| Average number of likes per post (main candidates)	26.03.2020 - 12.07.2020	26.03.2020 - 10.05.2020	11.05.2020 - 10.06.2020	11.06.2020 - 28.06.2020	29.06.2020 - 12.07.2020
Rafał Trzaskowski (all)	8561	1380	7939	10355	12234
Szymon Hołownia	6329	6450	5391	6625	8973
Andrzej Duda	5402	3566	4457	5837	6494
Krzysztof Bosak (all)	4155	3117	3662	5104	7979
Robert Biedroń	3078	2379	2647	3173	7892
Władysław Kosiniak-Kamysz	860	1249	806	627	2146

8. Spreading factor

The analysis and comparison of the spreading factor (bubbles of support)[15] indicates how efficient FB was as a tool of communication with candidates' supporters. Comparing changes in the number of likes per post for candidates over the given period of the campaign, one can observe how important of a tool FB was for some candidates and how almost irrelevant for others.

Graph #8 below shows that R. Trzaskowski increased his group of followers by over 280% (almost three times), from 174,195 to 501,839, during his campaign in the second election, while A. Duda enlarged his group by only 11%, from 674,198 to 745,168, throughout the whole period of both elections. Sz. Hołownia and K. Bosak have increased their number of followers by 217% and 223% respectively. Similarly, during the first election, before May 10, Sz. Hołownia and K. Bosak achieved the highest growth in the number of followers. [*Graph #8*] However, only K. Bosak managed to sustain this growing trend during the second election period, with a 40% increase in the number of his followers. S. Hołownia, who has had the most dynamic growth rate during the first election (190% increase in the number of followers), did not manage to maintain this trend during the second election, achieving a mere 14% increase.

Graph #8: *Spreading factor for selected candidates (the whole period of observation)*
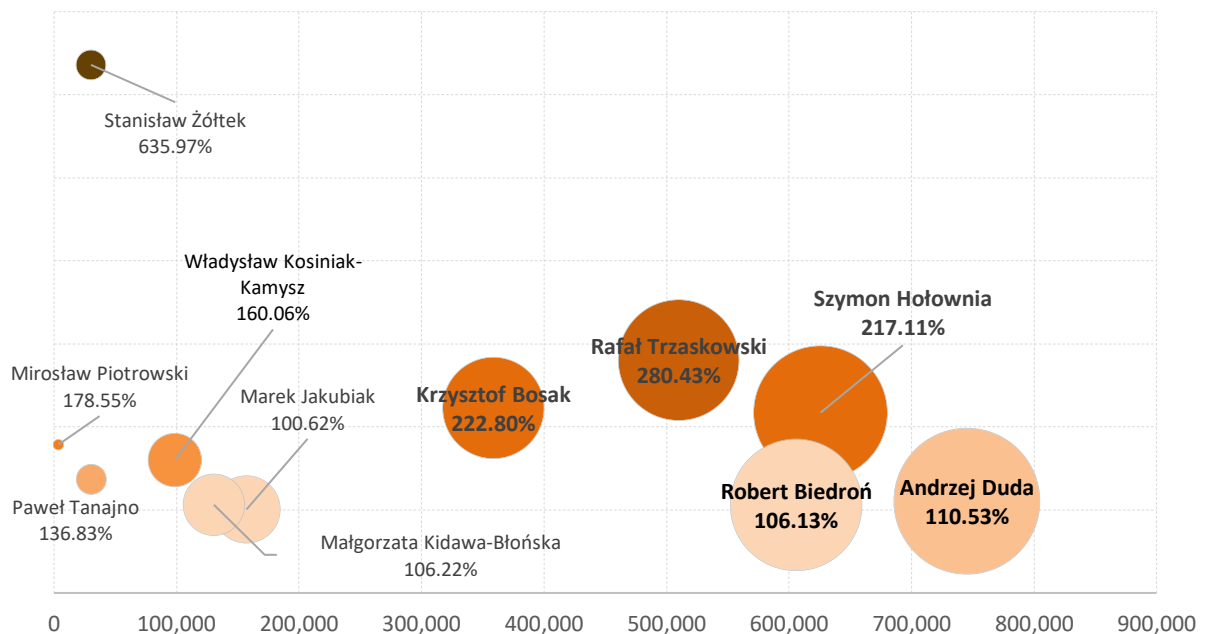
The analysed data indicates that FB played an important and effective, role for some candidates (namely R. Trzaskowski, Sz. Hołownia, K. Bosak) while it was unimportant or ineffective for others, like A. Duda or R. Biedroń. The successful use of FB should not be measured by the number of posts (A. Duda had the highest number of posts during the second election - three times more than during the first election) but a candidate's ability to draw the reader's attention and provoke his/her reaction. R. Trzaskowski had the highest number of average likes per post, 8 333, while the second Sz. Hołownia only 6 329. Both of them, as well as K. Bosak, significantly enlarged their groups of supporters. In this case, one should also pay attention to the absolute numbers, not just the percentage, in order to see

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[15] Spreading factor reflects changes in the number of likes at posting at the beginning and at the end of the observation period. However, available data does not allow to analyse the fluctuation of number of followers – how many of them left, how many new ones arrived; also, a much radical increase in the number of followers of some candidates does not always mean these followers will stay with this candidate for longer but FB does not record those followers who stopped actively observing a particular profile.

that some candidates, despite a significant growth in the number of followers, still remain behind their competitors when the total number of followers is concerned. For example, Sz. Hołownia increased his group from 288 193 to 625 693 supporters (approx. 337 thousand), R. Trzaskowski from 174195 to 501 839 (approx. 328 thousand) and K. Bosak from 160 979 to 358 661 (approx. 198 thousand). For other candidates, like the incumbent A. Duda or R. Biedroń, FB did not prove as an efficient campaigning tool – they merely managed to retain their number of followers only (A. Duda started with 674 198 supporters and finished his campaign with 745 168 – increase by approx. 71 thousand only).

Spreading factor data, in combination with candidates' total number of posts (*Graph #1*) and number of posts per day (*Table #1*), may give us a hint not only about the candidates' campaign strategy but also about the differences in access to public media, especially public television – TVP. Limited access to public media could have played a role given that the election was held during the COVID-19 pandemic, when direct meetings with voters were either banned or restricted. A. Duda's limited activity on FB during the first election, and the fact that he merely preserved his number of followers on Facebook throughout the whole election campaign, confirms only that his electorate stays, in general, outside of social media and that he could reach them via different channels, especially via public media outlets (TVP, Polish Radio). Other candidates' activity on FB shows that they have identified this social media platform as one of the most efficient channels of communication with their target groups but also that they might have had limited access to alternative channels of communication – restricted access to public media, strictly limited possibility of having personal meetings with voters, etc.[16] When some restrictions were lifted during the second election, a bigger space for candidates to campaign was created while reducing the advantage of the incumbent president practically being the only candidate allowed to use public media.[17] This could have led to a decision to increase his presence even in social media. However, in order to precisely define what was the main reason for such situation, additional analysis should be undertaken (concerning marketing strategy, target group of voters, distribution of resources invested in the campaign, etc.)

Graph #9*: Spreading factor for selected candidates (period of the first election)*


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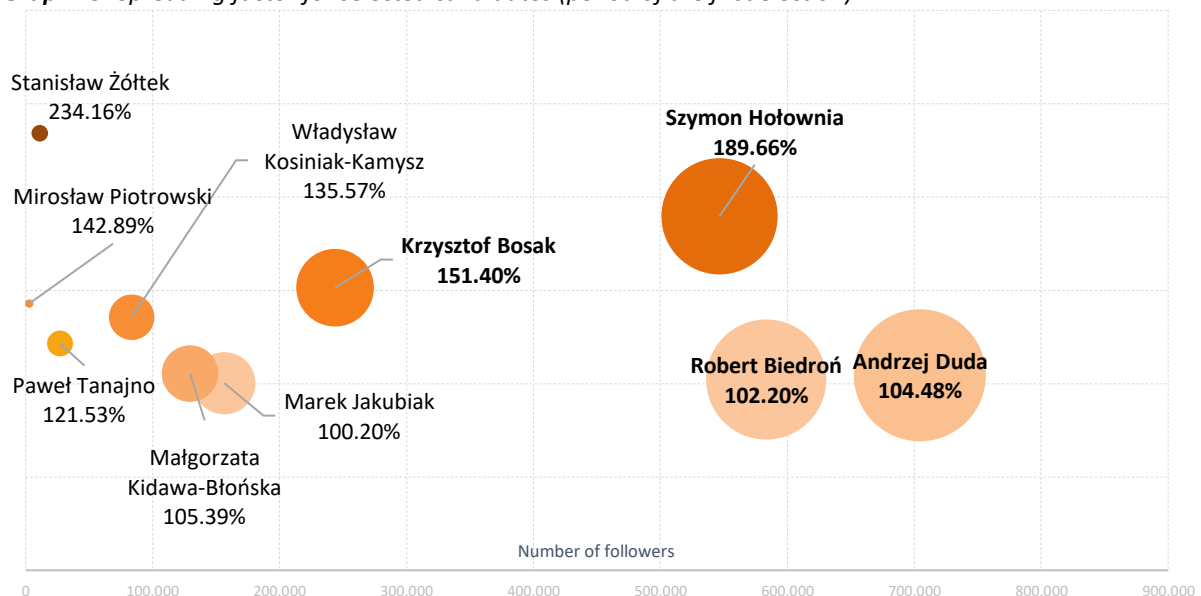
[16] In order to have a more comprehensive analysis it would be necessary to monitor simultaneously other social media, like Twitter, Instagram or even TikTok [where incumbent president was active], as well as traditional media.

[17] In the OSCE/ODIHR Final Report on Presidential Election in Poland in 28 June and 12 July 2020, it is stated that "*The public broadcaster (TVP) failed in its legal duty to provide impartial coverage, … Instead, TVP acted as a campaign vehicle for the incumbent*".

The above observation is confirmed if one looks at the Range Index dynamic for the two main competitors: A. Duda and R. Trzaskowski. [Graph #9B] It indicates, that posts of R. Trzaskowski, are on average more shared than those of his main opponent, A. Duda.

**Graph #9B**: *Range Index Dynamic Change – A. Duda _ R. Trzaskowski (the whole monitoring period)*
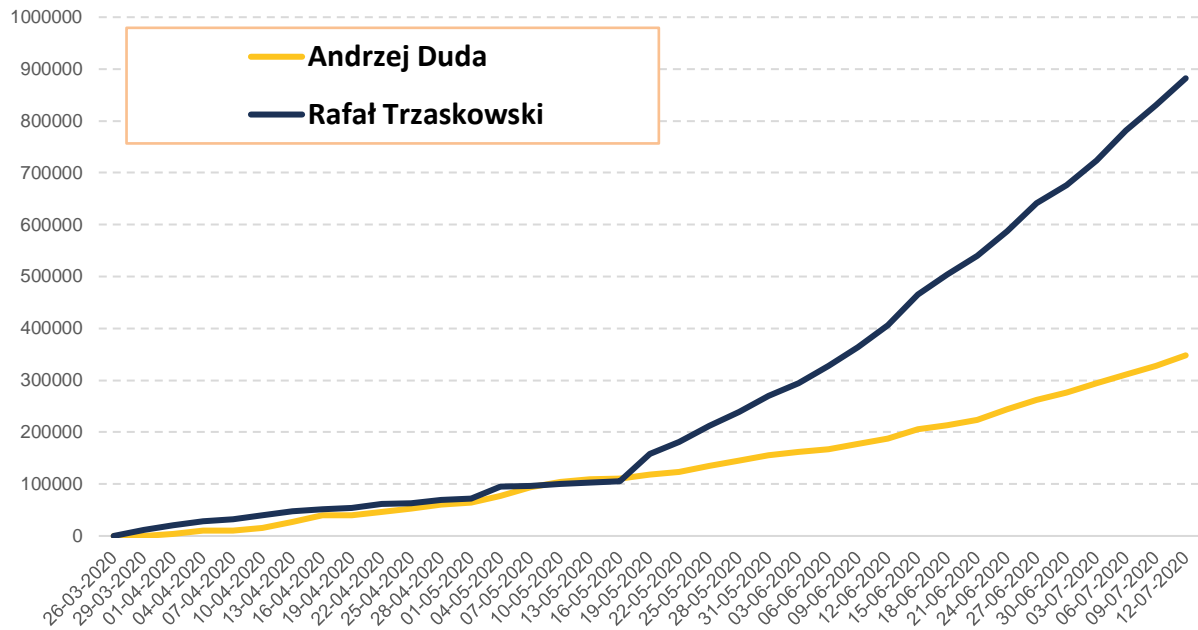
9. Narratives – Qualitative analysis

Qualitative analysis was based on the observation of 30 909 posts throughout 79 days - the first and second election (March 26 – May 10 and 10 June – 12 July). Each post has been assigned one of the 15 narratives and 73 topics which allowed to define the messages which were most commonly presented by the three groups of actors during the election campaign: candidates, mainstream media and *fringe* media outlets.

In general, differences in subject of the main messages were observed between these three groups of actors as well as between the first and the second election. See Annex 2 for a detailed list of topics included under each meta narrative.

In general, for all posts observed, two narratives were the dominant ones for the whole election period (from March 26 till July 12): election and COVID-19, and they stood for 47 percent of all posts (24% elections, 23.1% COVID-19). Five most common meta-narrations are shown at the graph below. [*Graph #10*]

Graph #10: All posts - meta-narratives – the whole period (March 26 – July 12)
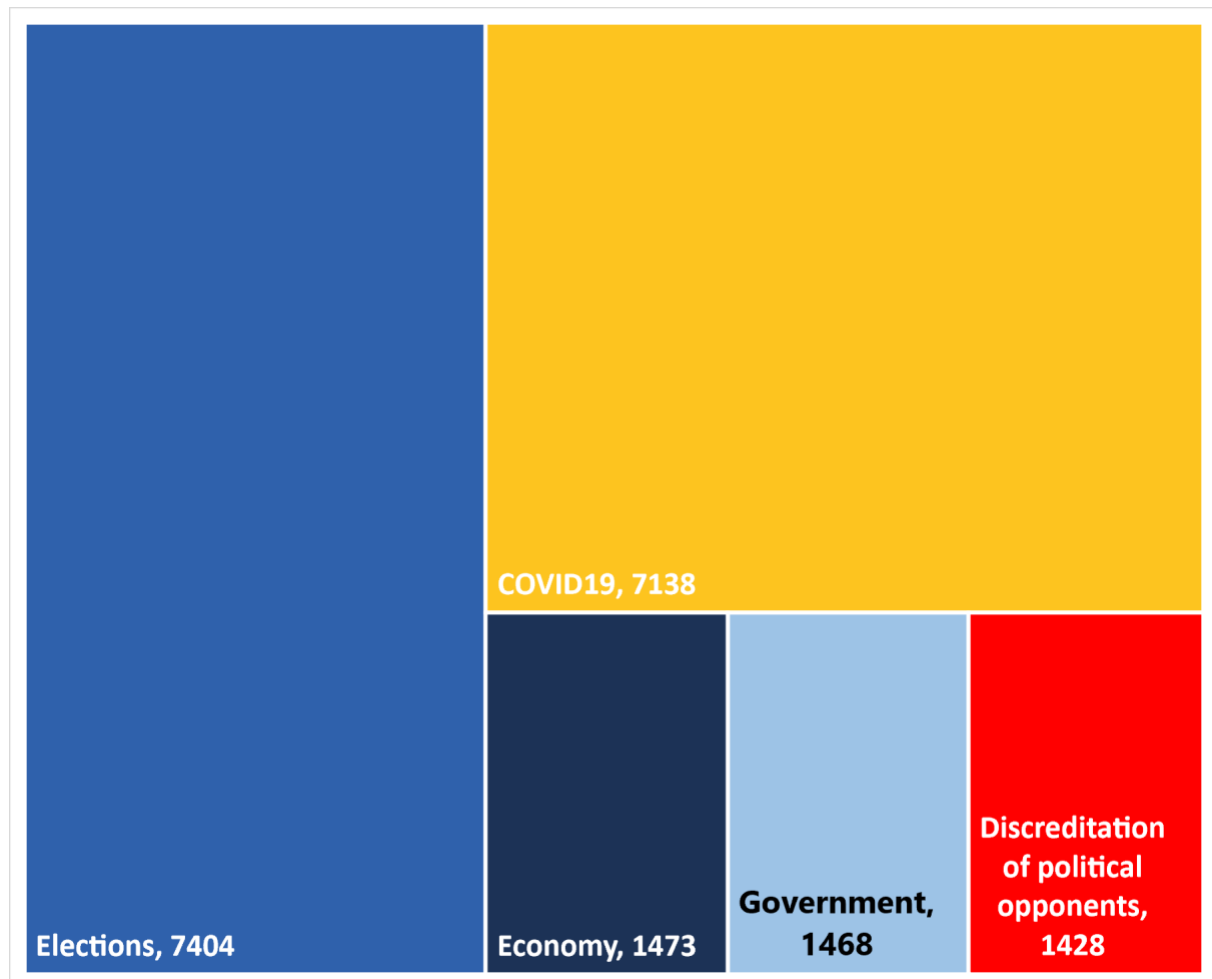
Graph #10B, visualises the dynamic changes in the structure of narratives across the whole period of two elections. It shows that during the first election, *COVID-19* was the dominant narrative, giving up to elections-related topics during the couple last days before the election day. During the second election, the COVID-19 issue was overshadowed by the issue of *elections* and even by the issue

discreditation of political opponents, which was, however, practically not observable among candidates.

The issue of the *10th Anniversary of Smoleńsk* catastrophy (April 10) is an interesting example. It became a very hot narrative in April, being present in posts of candidates, media and fringe outlets. But this issue did not preserve until May (election day on May 10)or July(election day on July 12), even if during the previous 10 years, the governing party (PiS) was using the Smolensk plane crash to consolidate its voter base and was actively commemorating the crash on every 10th day of each month.

It is also interesting to see that there was a general decrease of interest in election few days before the election day of May 10th – it may indicate that media, but also candidates – to a lesser extent, lost faith that the election would take place as scheduled and refocused their attention to other issues.[18] It was an opposite direction of refocusing during the second election – in general, election draw much more attention than during the first election, and just before the voting day during the II round, election narrative became absolutely dominant in posts of all actors included in the observation.[19]

Graph #10B: All posts - meta-narratives – the whole period (March 26 – July 12) – dynamic of changes

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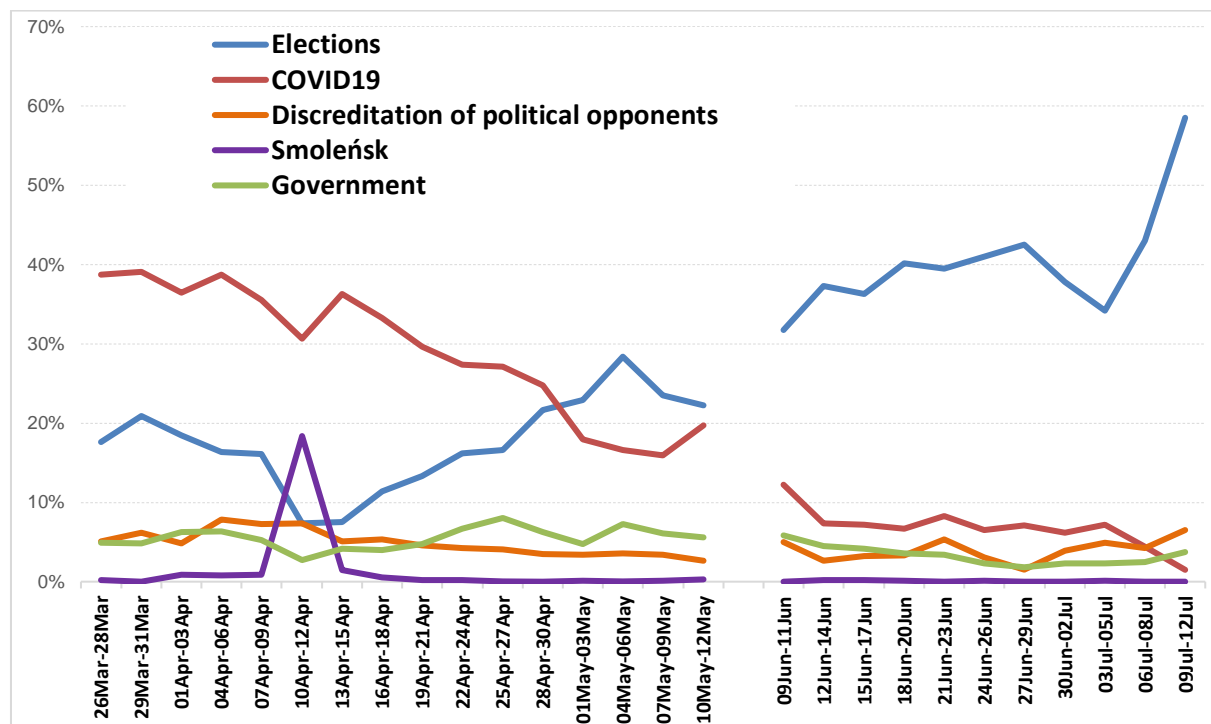
[18] If one looks at the dynamic of the changes in the structure of narratives' among mainstream and *fringe* media outlets, it might be observed that in their posts COVID-19 narrative became more visible than the *election* narrative few days before the election day – it was then when it became clear that the government will not be able to organise the election within the schedule.

[19] Among the topics which were mentioned the most under the *elections* narrative, were (i) mobilization of voters, (ii) candidates and (iii) opposition.

Candidates

Among presidential **candidates**, the most important type of messages was related to elections in general throughout the whole period of both election processes. [*Graph #11 & Graph #12*] Nearly 40 percent of posts from the first election and nearly 70 percent from the second election focused on this issue.

Graph #11: Candidates - meta-narratives – March 26 – May 10
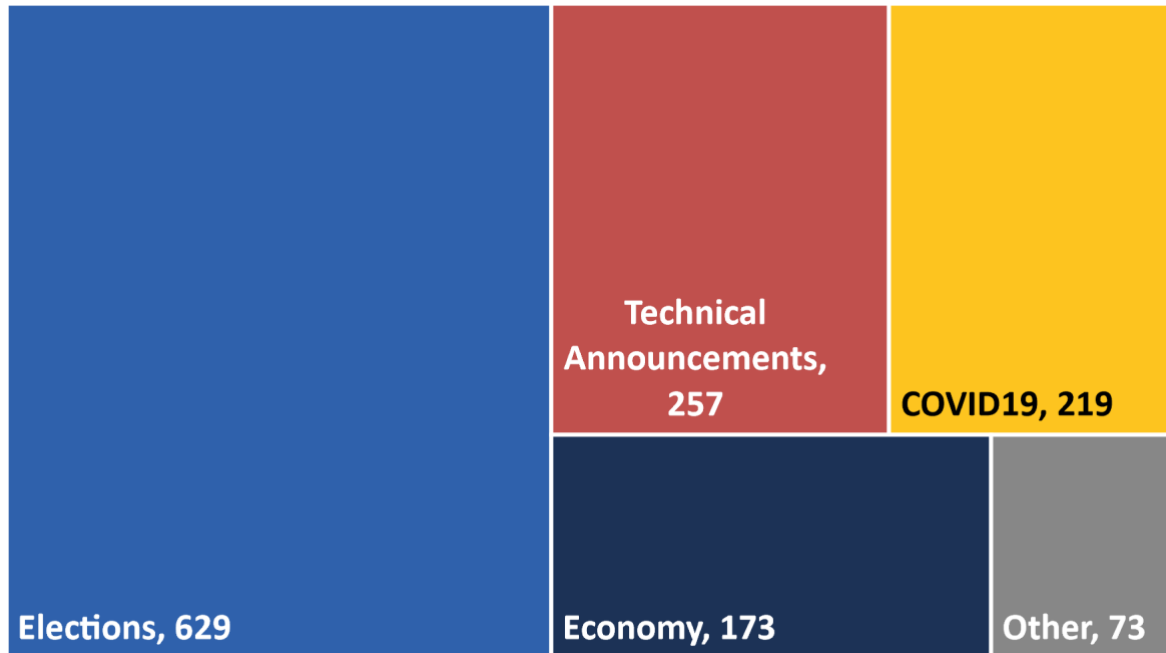
The second most popular type of messages was technical announcements, which usually covered information about meetings, interviews or speeches of candidates [16 and 11 percent during the first and the second election respectively). The third most discussed narrative was COVID-19 during the first election (nearly 14 percent), however, it practically disappeared during the second election campaign (less than 1 percent), giving way for the economy. Interestingly, issues like environment protection, rule of law but also discreditation of political opponents or the government played insignificant role during the campaign among candidates.

*Graph #12: Candidates - meta-narratives – June 10 – July 12*

Media outlets

Main narratives included in posts from **media outlets** had different structure. COVID-19 was a dominant issue for the whole period observed (over 28 percent), with elections in the second position (with 21 percent) and *'none of the above category'*[20] third (with 21 percent).

Graph #13*: Media outlets - meta-narratives – the whole period (March 26 – July 12)*

COVID19, 5012	Elections, 3720	
	Economy, 794	Government, 667	International relations, 603
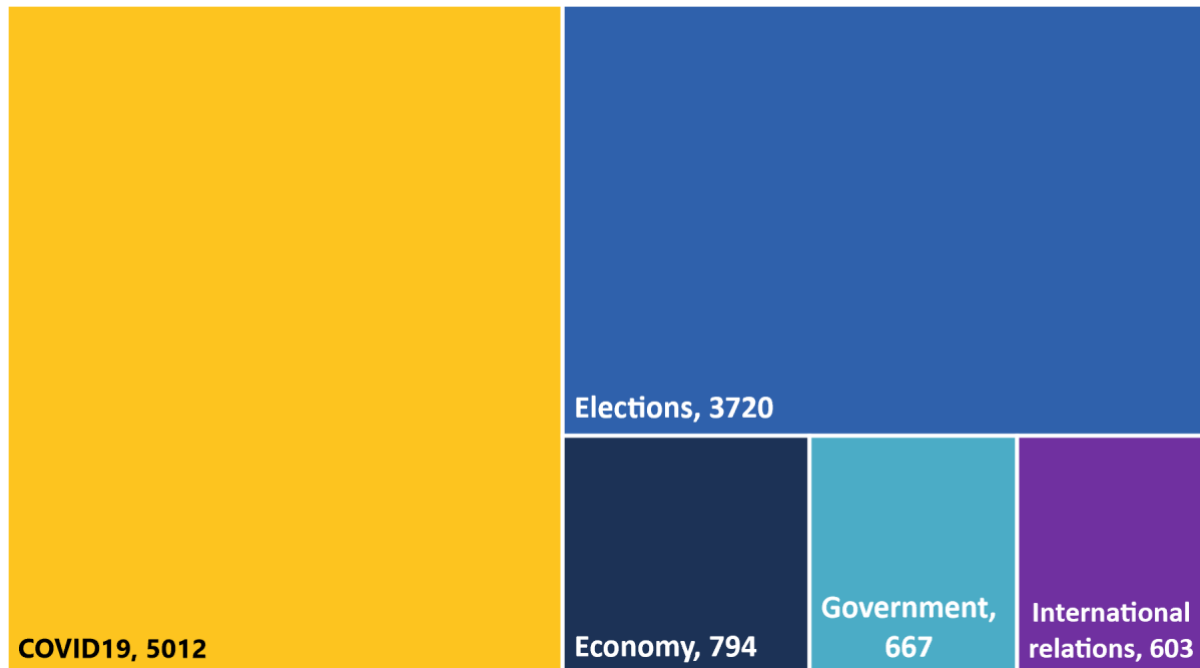
Significantly, a more radical change of narratives could be observed among media outlets than among candidates. During the first election (March 26 – May 10), COVID-19 was a dominant issue, present in almost 36 percent of all media posts. The election issue was in the 3rd place only, with less than 17 percent of posts dedicated to this subject. Interestingly, issues like international relations, discreditation of political opponents or church were much more present in posts from this group than in posts from candidates. [*Graph #14*]

Graph #14*: Media outlets - meta-narratives – March 26 – May 10*

|		
COVID19, 4549	Other, 2162	Elections, 2114
		Economy, 624	Government, 550

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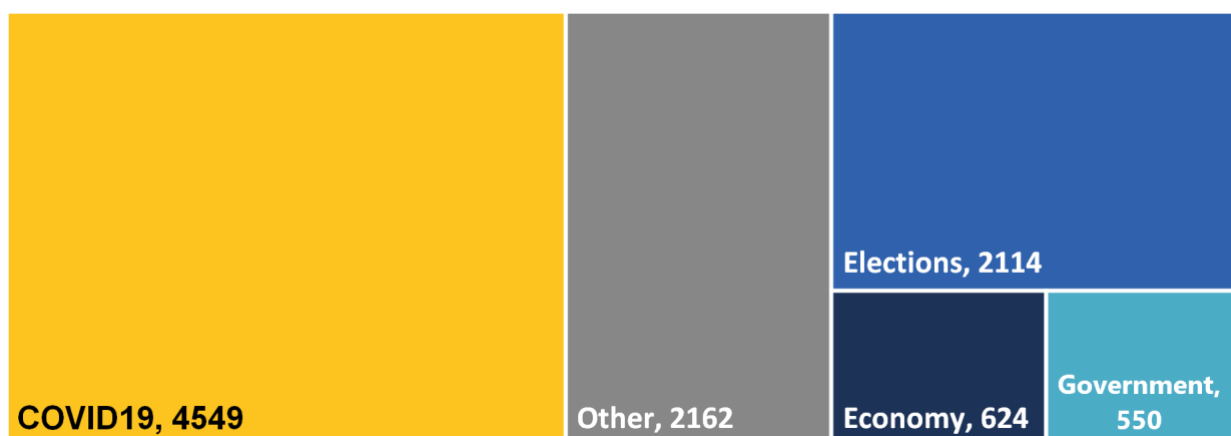
[20] In this 'non-category' were included issues not related to election process, like events in the world, sport, holiday, hobbies, etc.

This structure changed for the period of the second election – then, the issue of elections became a dominant one, with 41 percent, and COVID-19 dropped down to 7 percent (but still was more present in media outlets messages than among candidates). Social issues, economy or rule of law remained present in posts, however, at the low level (some 4 to 2 percent). Still, category 'none of the above' issues represented 30 percent of posts, becoming the second the most used category. [*Graph #15*]

Graph #15: Media outlets - meta-narratives – June 10 – July 12
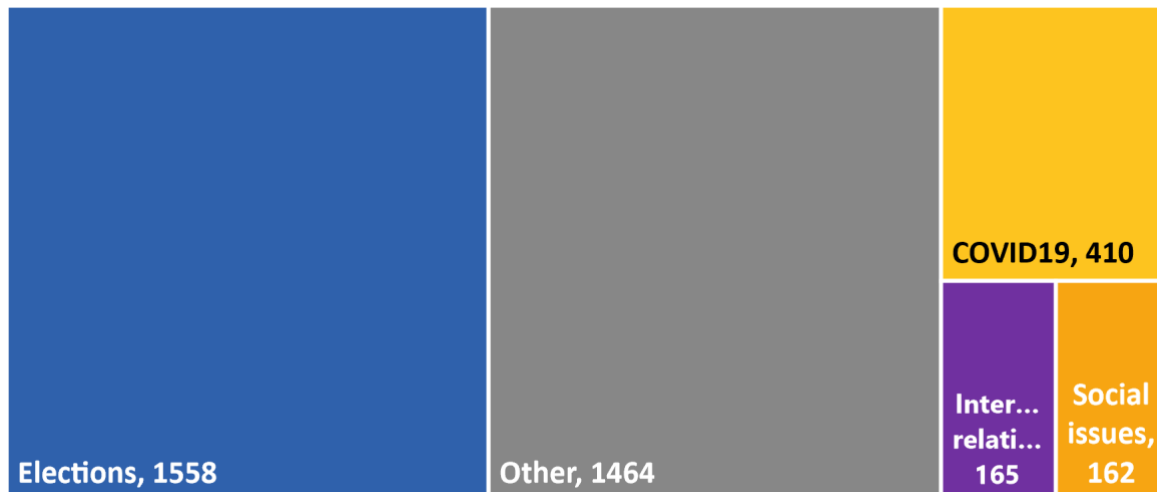
Fringe media outlets

Interestingly, *fringe* media have been generally focused on issues which fall outside of the scope of narratives and topics we defined as the most characteristic for election process - over 25 percent of posts were mentioning issues assigned as '*none of the above category*'. Nearly 19 percent of posts were mentioning COVID-19 and only slightly over 18 percent were discussing elections. Differently from candidates and from mainstream media, *fringe* media had a visible percentage of posts about discreditation of political opponents, the government or international relations (8, 7 and 6 percentage respectively). [*Graph #16*] Such difference in structure of narratives may lead to two potential conclusions: *fringe* media were less 'constrained' by political campaign rules and strategies, hence they could more actively present controversial issues, like those included in the 'discreditation of political opponents' narrative OR *fringe* media shared selected messages which were originally posted by candidates and/or mainstream media and were selecting issues they deemed potentially controversial. In both cases the objective was to increase media's visibility.

Graph #16: Fringe media outlets - meta-narratives – the whole period (March 26 – July 12)

During the first election, COVID-19 dominated in majority of posts, 24 percent, followed by 'none of the above' (23 percent) and elections (13 percent). Nearly eight percent of posts focused on the discreditation of political opponents.

Graph #17: Fringe media outlets - meta-narratives – March 26 – May 10)
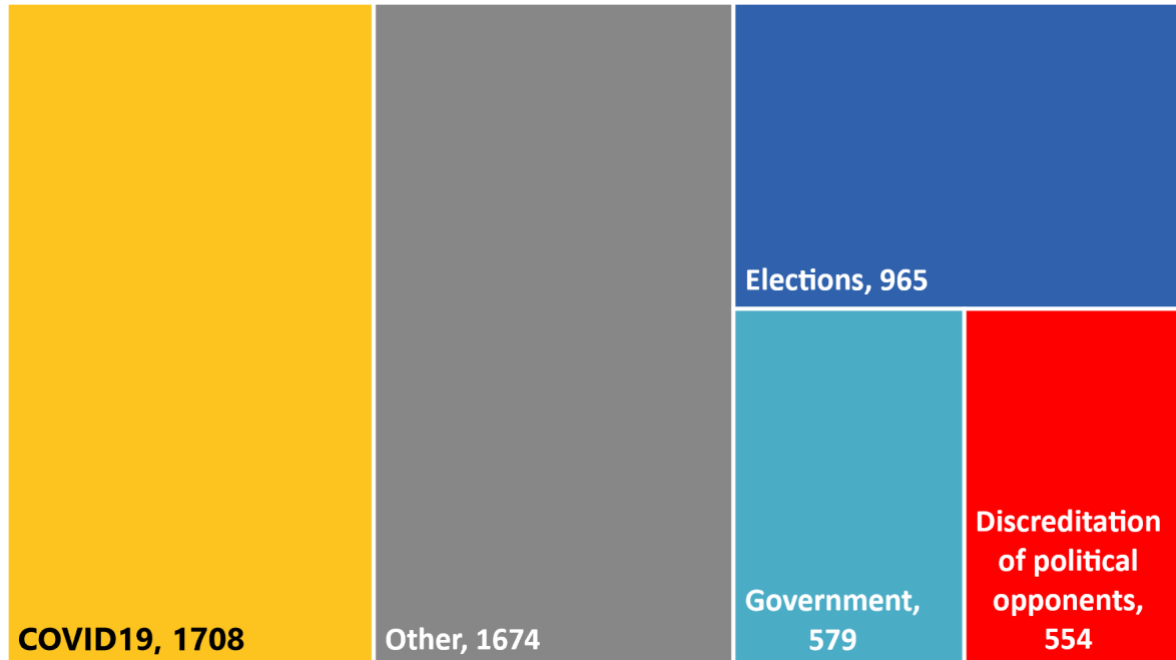
This structure changed during the second election, and especially during the II round, when issue of *elections* was dominating almost 35 percent of posts. Also, issue of *discreditation of political opponents* was mentioned in the highest ever number of posts, almost 10 percent. It was followed by international relations and *COVID-19*. [*Graph #18*]

Graph #18: Fringe media outlets - meta-narratives – June 29 – July 12
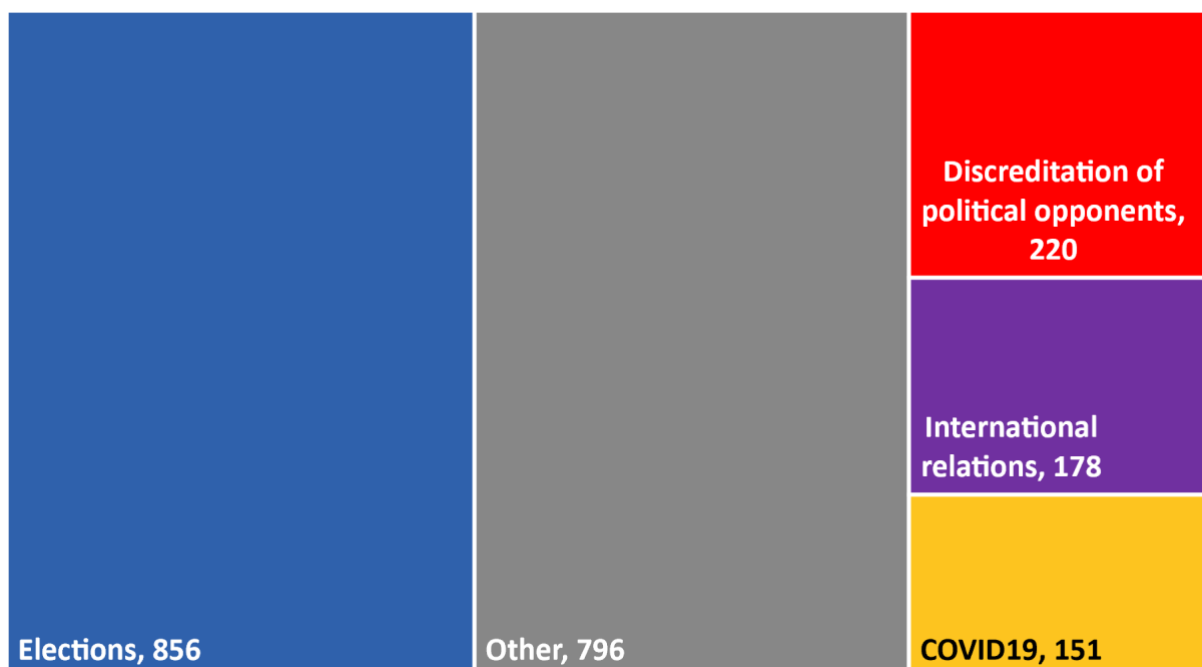
10.   Tone of the campaign

The tone of the candidates' posts was predominantly neutral or positive [*Graph #19*]. Only among two candidates, P. Tanajno and M. Kidawa-Błońska, the tone of a significant number of their total posts was assessed as negative. W. Witkowski had no negative nor positive posts. There is no visible correlation between the tone of the campaign and a candidate's electoral results, however, both, A. Duda and R. Trzaskowski - the two candidates who made into the second round of the second election, had the lowest percentage of negative posts from the whole group (except W. Witkowski).

***Graph #19**: Tone of campaign – Candidates – the whole period (March 26 – July 12)*
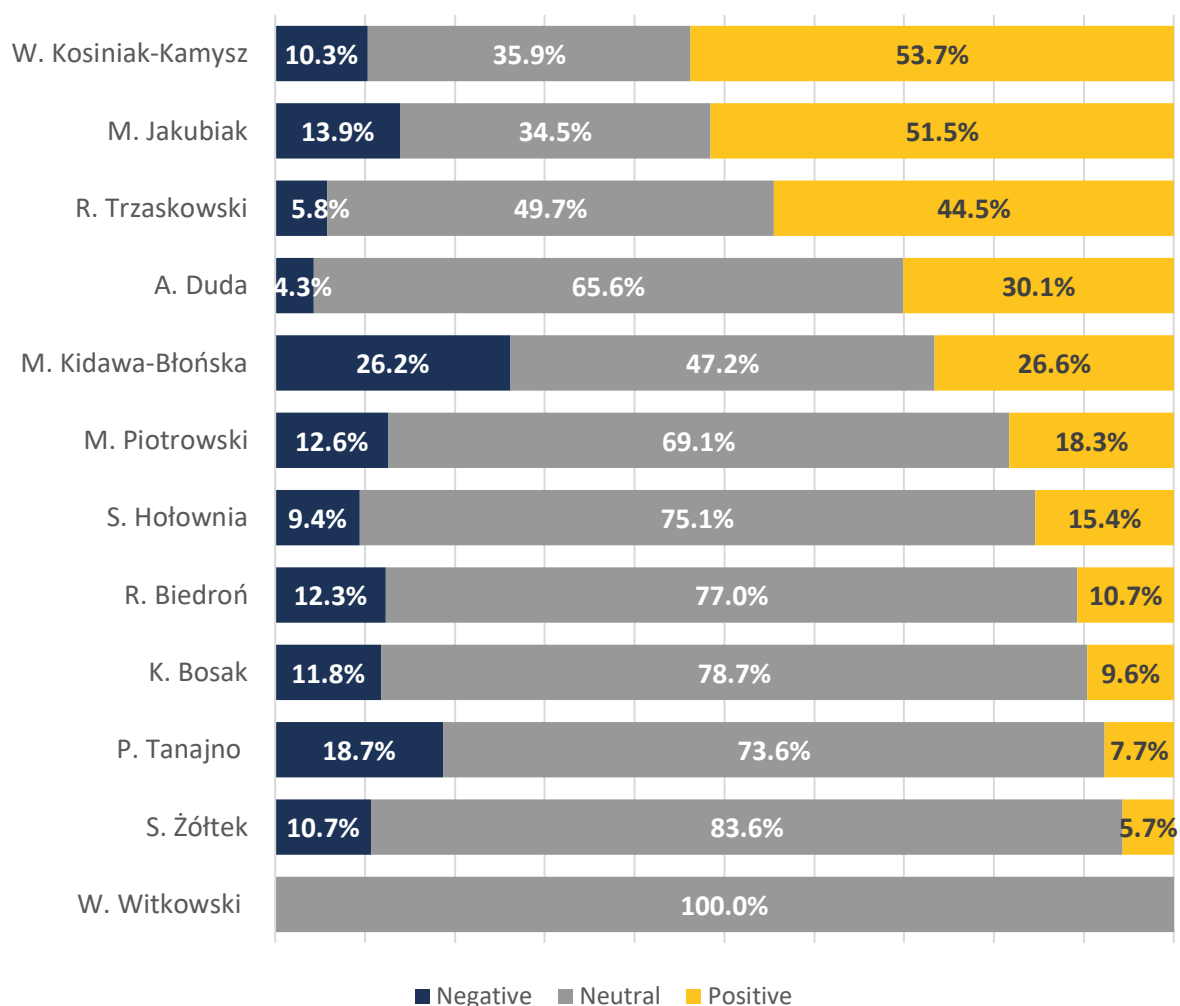
Media and *fringe* outlets' posts were slightly more negative in their tone, with *Oko.Press, Wolne Media* or *Wieści24* having over 25 percent of posts assessed as negative [*Graph #19B*]. More significant differences could be observed in the number of positive posts. Some candidates even had over 50 percent posts assessed as positive, and the two main candidates, A. Duda and R. Trzaskowski, had 30 and 44 percent of such posts respectively. Among media outlets, the highest number of positive posts has been observed at the level of less than 15 percent – *Gazeta Polska Codzienna*. All other media had less than 10 percent posts positive.
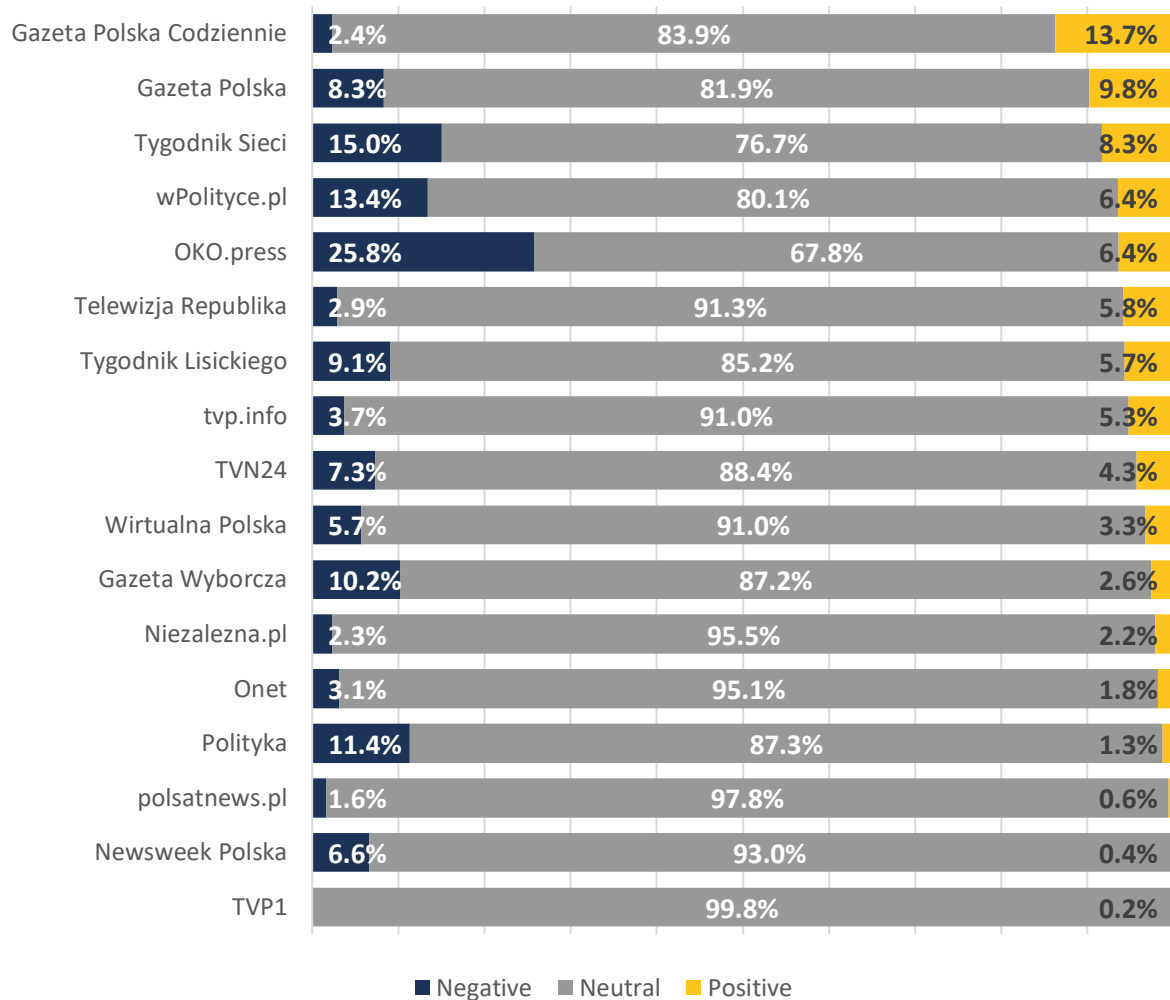
This distinction in tone between candidates and media outlets was even more polarised during the II round of the second election. Two candidates, A. Duda and R. Trzaskowski, presented positive

messages in 70 and 82 percent of posts, while among media outlets positive posts were observed in less than 10 percent, with one only exception of *Oko.Press*.

The first conclusion to be drawn from the above data would be that it was not the candidates who propagated negative messages but media themselves.

Graph #19B: Tone of campaign – Mainstream media– the whole period (March 26 – July 12)

	Negative	Neutral	Positive
Gazeta Polska Codziennie	2.4%	83.9%	13.7%
Gazeta Polska	8.3%	81.9%	9.8%
Tygodnik Sieci	15.0%	76.7%	8.3%
wPolityce.pl	13.4%	80.1%	6.4%
OKO.press	25.8%	67.8%	6.4%
Telewizja Republika	2.9%	91.3%	5.8%
Tygodnik Lisickiego	9.1%	85.2%	5.7%
tvp.info	3.7%	91.0%	5.3%
TVN24	7.3%	88.4%	4.3%
Wirtualna Polska	5.7%	91.0%	3.3%
Gazeta Wyborcza	10.2%	87.2%	2.6%
Niezalezna.pl	2.3%	95.5%	2.2%
Onet	3.1%	95.1%	1.8%
Polityka	11.4%	87.3%	1.3%
polsatnews.pl	1.6%	97.8%	0.6%
Newsweek Polska	6.6%	93.0%	0.4%
TVP1		99.8%	0.2%

■ Negative ■ Neutral ■ Positive

Graph #19C: *Tone of campaign – Fringe outlets – the whole period (March 26 – July 12)*

Outlet	Negative	Neutral	Positive
Polska Niepodległa	10.2%	82.3%	7.6%
Sputnik Polska	7.7%	85.9%	6.4%
Marsz Niepodległości	10.5%	85.3%	4.2%
Nie lubię PiS-u	11.4%	84.4%	4.1%
PCh24.pl	4.3%	92.0%	3.6%
wolne-media.pl	26.0%	70.5%	3.4%
SokzBuraka	6.5%	91.3%	2.2%
Niezależny Dziennik Polityczny	17.5%	80.5%	2.0%
Wolna Polska Wiadomości	4.2%	94.2%	1.7%
Polska Moja Ojczyzna	3.6%	94.9%	1.6%
zmianynaziemi.pl	2.3%	96.6%	1.1%
Wieści24.pl	26.5%	72.4%	1.1%
Racjonalna Polska	6.5%	92.5%	1.0%
KRESY.PL	3.9%	95.2%	0.8%
Neon24		100.0%	
Demagog		100.0%	
Konkret24		100.0%	
Ośrodek Monitorowania…		100.0%	

■ Negative   ■ Neutral   ■ Positive

11.   Samples of most 'Liked' posts

We selected five posts with the highest number of Likes in each group of actors (candidates, mainstream media and fringe outlets) from each of the three campaign periods - the first election, round I of the 2nd election and round II of the 2nd election. The analysis of these posts presents a few patterns:

- There's a significant difference in the number of likes received by candidates, fringe outlets and media – overall, the most 'liked' post was published by Sz. Hołownia, a candidate (80 666 likes), the most popular post by a fringe outlet was that by Sok z Buraka (47 363 likes), while the most popular post by media was published by TVN24 (commercial news TV) (20 377 likes).
- Szymon Hołownia's social media strategy resulted not only in a significant rise in the number of followers, but also in the popularity of his posts - during the first election five most liked candidates' posts were published by Sz. Hołownia.
- Popularity in social media reflects candidates' popularity in the polls - during the I and the II round of the second election posts of only three candidates were among the top 5 most liked posts: Sz. Hołownia, R. Trzaskowski i A. Duda (during the II round) - these three candidates were the biggest contenders and got the most votes in the election.[21]
- In general, the campaign was largely positive in sentiment and to the extent we could observe it, this rhetoric was also embraced by voters on social media – out of the top 5 posts the only post addressed against another candidate was published by the incumbent president, A. Duda, during the II round of the second election – the post did not exhibit hate speech, but the incumbent was clearly attacking his opponent in a direct and very critical way.
- Interestingly, and somewhat unusually for Polish politics, during the II round of the second election, three out of five most liked posts concerned speeches made and ideas voiced by the wives of both candidates and the incumbent's daughter.
- Fringe media outlets did not play a significant role in the election coverage - in all three campaign periods posts of only one *fringe* media outlet, *Sok z Buraka*, made it into the top 5 most liked posts *[Sok z Buraka was the most active actor among the whole group, with the highest number of posts and the highest total number of likes during the whole period]*.
- *Sok z Buraka* repeated the same post twice, during the I and II round of the second election; in both cases the post was among the top five most liked posts among *fringe* media outlets. In both cases the post was published on election day during voting.
- Most of the top-liked posts were videos which shows that social media audiences are increasingly likely to engage with audio-visual content, even if consuming such posts takes more time than the consumption of other types of posts.

The most interesting popular posts, with short context explanation, are presented below.

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[21] In the first round A. Duda received 43,50% of the vote, R. Trzaskowski 30,46% and Sz. Hołownia 13,87%. In the second round A. Duda received 51,03% and R. Trzaskowski 48,97% of the vote. (source: https://prezydent20200628.pkw.gov.pl/prezydent20200628/)

Candidates

- **Szymon Hołownia**

Post from March 28, the most liked post overall (80 666 likes). A Facebook live video of Hołownia criticising the government's decision to proceed with organising the May 10 election despite the COVID-19 pandemic. During the entire campaign Hołownia has been posting daily lives where he commented on the news of the day and interacted with his followers. Szymon Hołownia - Poranny live Szymona 28.03.... (facebook.com)
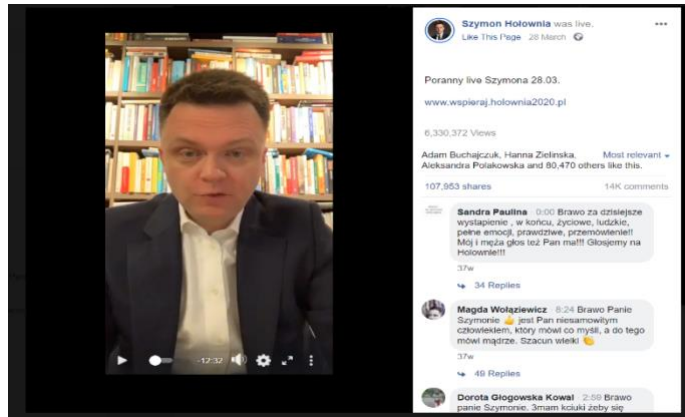
- **Szymon Hołownia**

Post from May 4, the second most liked post among candidates during the first election (30 650 likes). The post shows the results of a recent poll showing Hołownia's second result which would guarantee him a spot in the II round. This post was important for Hołownia's supporters since it showed that he could benefit from a real and just virtual support and was a real contender to fight against the incumbent A. Duda – an impressive result for a newcomer on the Polish political scene. Szymon Hołownia - To nie jest tylko wirtualne poparcie. To... | Facebook

- **Rafał Trzaskowski**

Post from July 10, the second most liked post overall (55 213 likes). R. Trzaskowski meets O. Tokarczuk the recipient of the Nobel prize for literature, a writer who is also perceived as an activist. To honor i przyjemność spotkać się z... - Rafał Trzaskowski | Facebook

- **Andrzej Duda**

Post from July 8, the incumbent's second most liked post during the II round of the second election (13 813 likes). A. Duda referred to the failure of the wastewater collector in Warsaw's sewage treatment plant in August 2019 and called R. Trzaskowski a "slayer of good ideas, gatherer of wrong solutions and candidate-failure". The main slogan used in the clip is: 'do you really want to vote for chaos and disorder?'. This was the only post among popular posts referring directly to another candidate and attacking him.

Andrzej Duda - Rafał Trzaskowski - pogromca dobrych... | Facebook

- **Rafał Trzaskowski**

Post from June 20, the third most liked post, published during the I round of the second election (47 660 likes). Trzaskowski's first campaign spot in which the candidate introduces himself, his background, family, general plans and ideas.

Dzieciństwo. Rodzice. Szkoła. Studia.... - Rafał Trzaskowski | Facebook

- **Andrzej Duda**

Post from July 12, the incumbent's most liked post during the II round of the second election (41 453 likes). A. Duda is thanking his supporters and celebrating his victory with his wife and daughter after the exit poll results were announced on election night.

Andrzej Duda - Dziękujemy! ✌️PL | Facebook

Mainstream media

- **TVN24, commercial news TV**

Post from April 17, second most liked media post during the first election (20 537 likes). The video shows TVN24's official statement in reaction to public TV and media attacks on its journalists, and especially on J. Pochanke who critically reported on J. Kaczyński visit to the cemetery during the lockdown (when no one else was allowed to enter and people were banned from participating in their loved ones' funerals). Public media attacked her mother with made up accusations. In this statement TVN24 stands firmly behind its journalists and their standards.
TVN24 - Oświadczenie redakcji Fakty TVN▼▼ | Facebook

TVN24
17 April ·
Oświadczenie redakcji Fakty TVN▼▼

- **Gazeta Wyborcza, commercial daily**

Post from May 7, third most liked media post during the first election (15 773 likes). The video documents the protest of micro-entrepreneurs against the government's covid-related economic policies. The protest was organised by one of the presidential candidates – P. Tanajno.
Gazeta Wyborcza - Protestujący przedsiębiorcy idą w stronę... | Facebook

Gazeta Wyborcza was live.
7 May ·
Protestujący przedsiębiorcy idą w stronę Sejmu. Oglądajcie z nami na żywo! - Jedziemy na Warszawę - zakomunikował w mediach społecznościowych Paweł Tanajno, lider Strajku Przedsiębiorców i kandydat w wyborach prezydenckich 2020. Komunikat umieścił w mediach społecznościowych, gdzie uczestnicy planowanego na dziś protestu wymieniają się informacjami organizacyjnymi.

- **Gazeta Wyborcza, commercial daily**

Post from June 16, the most liked media post during the I round of the second election (7 658 likes). The post concerns the decision of a widow of the most famous Polish rock musicians who refused to take part in a show on public TV due to the fact that the station 'spreads hate and intolerance'.
Gazeta Wyborcza - Bo TVP "szerzy nienawiść i nietolerancję". | Facebook

Gazeta Wyborcza
16 June ·
Bo TVP "szerzy nienawiść i nietolerancję".

WYBORCZA.PL
Wdowa po Grzegorzu Ciechowskim odmówiła udziału w programie TVP

- **Wirtualna Polska, commercial Internet portal**

Post from June 11, the second most liked media post during the I round of the second election (7 031 likes). It is about the lowest number of active Catholics in the last two decades and portrays the story of a girl who lost faith in the institutional Church.

Odsetek praktykujących w Polsce jest... - Wirtualna Polska | Facebook

- **Gazeta Wyborcza, commercial daily**

Post from July 4, the second most liked media post during the II round of the second election (8 029 likes). The post links to an interview with M. Trzaskowska, wife of R. Trzaskowski. In the interview Ms Trzaskowska talks about her upbringing, the values she shares and her ideas on the role played by a First Lady.

Gazeta Wyborcza - Moja mama nauczyła nas, że bez względu... | Facebook

- **TVP Info, public TV news channel**

Post from July 12, the fourth most liked media post during the II round of the second election (6 167 likes). This is a video of the first speech K. Duda, daughter of A. Duda, delivered during the campaign, on election night. In her speech she says that no one should be afraid to walk out in Poland and that everyone should be treated equally and with respect despite colour of the skin, religion or different ideas and that no one should be a target for hate.

tvp.info - Kinga Duda: Niezależnie od tego w co wierzymy,... | Facebook

Fringe Outlets

- **Sok z Buraka, informal media outlet/page sharing political memes and other politically engaging content**

Post from April 17, the second most liked fringe outlet post during the first election (47 363 likes). The authors of the post show their support for TVN (the biggest private tv station) after the station published a statement against public TV's targeting of independent journalists.
SokzBuraka - Brawo Fakty TVN!! 👏👏👏 Warto być przyzwoitym! 👍 | Facebook

- **Sok z Buraka, informal media outlet/page sharing political memes and other politically engaging content**

Post from June 28, repeated on July 12, during the I and the II round of the second election (21 904 and 17 877 likes respectively). The post relates an interview given by J. Stuhr, a popular Polish actor, in which he stated that the essence of the last four years in Poland was hypocrisy and demoralisation of the society.
SokzBuraka - KLIKNIJ, JEŚLI MA RACJĘ. | Facebook
SokzBuraka - Ma rację? | Facebook

12.   Methodology

The monitoring has been conducted between March 26, the candidate registration deadline for the first election, and July 12, the election day of the II round of the second presidential election. Statistical/quantitative data has been analysed across the whole period under observation, however, narratives have NOT been allocated and analysed for the period between May 10, voting day of the first election, and June 10, the final day of candidate registration for the second election. The reason for this 'break' in narratives monitoring was our decision to focus on official election campaign periods instead of the period in-between the two elections.

The monitoring has covered Facebook activity on profiles of all 12 presidential candidates[22], 17 mainstream media outlets during the first election (14 during the second election), and 15 *fringe outlets* during the first election (13 during the second election), identified as potentially disseminating disinformation and/or *fake news*. The latter *fringe outlets* have been identified basing on the knowledge of local experts and data from publicly available sources. The decision to decrease the number of mainstream and *fringe* media outlets observed during the second election was based on our experience and the results of the monitoring performed during the first election. We assessed that some media outlets did not play any significant role during presidential campaign.

All posts have been analysed according to:
(i)   quantitative factors – the time of posting, interactions, likes, shares, comments, reactions and other forms of engagement, in order to create a general data about each profile showing its activity and its potential impact on social media users, and
(ii)   qualitative assessment – analysing the actual content of each post and coding it according to a list of most significant and most important narratives and topics present in the public discourse in Poland during the campaign period and allocating a tone (positive, neutral, negative) to each post.

We predefined 15 narratives and 73 topics based on our general observation of main issues important for politicians and voters. Five (5) topics were added in the course of the monitoring as a response to the changing events and narratives used during the campaign period.

Both quantitative and qualitative aspects have been analysed as the election campaign progressed, giving us an opportunity to monitor fluctuations in the presence and importance of different narratives and topics across the time of campaign and for different profiles.

Given the high volume of posts – 104 097 in total, we have applied a statistical sampling of posts of a given account for qualitative analysis and have included 30 909 posts in total in our qualitative monitoring.

- **Database**

In order to monitor and analyse social media on Facebook during two presidential elections, a separate data database was prepared. We have monitored totally over 50 channels/accounts, divided into three groups of actors:
(i)   presidential candidates (14 channels),
(ii)   mainstream media (20 channels), and
(iii)   *fringe outlets* (20 channels).

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[22] There were 10 candidates during the first election and 11 candidates during the second election, including two new ones (one candidate withdrawn).

The fringe outlets category includes 3 channels which have been picked not because they are potential disinformation sources themselves, but because they present different disinformation narratives and debunk them. These channels are: Konkret 24, Demagog and Ośrodek Monitorowania Zachowań Rasistowskich I Ksenofobicznych.

Our database consisted of 104 097 posts in total, collected across the entire monitoring period, from 26 March till 12 July. Chart 1 shows the division of all posts into three groups:

Chart 1: Number of posts

Media, 61544

Fringe outlets, 36898

Candidates, 5655
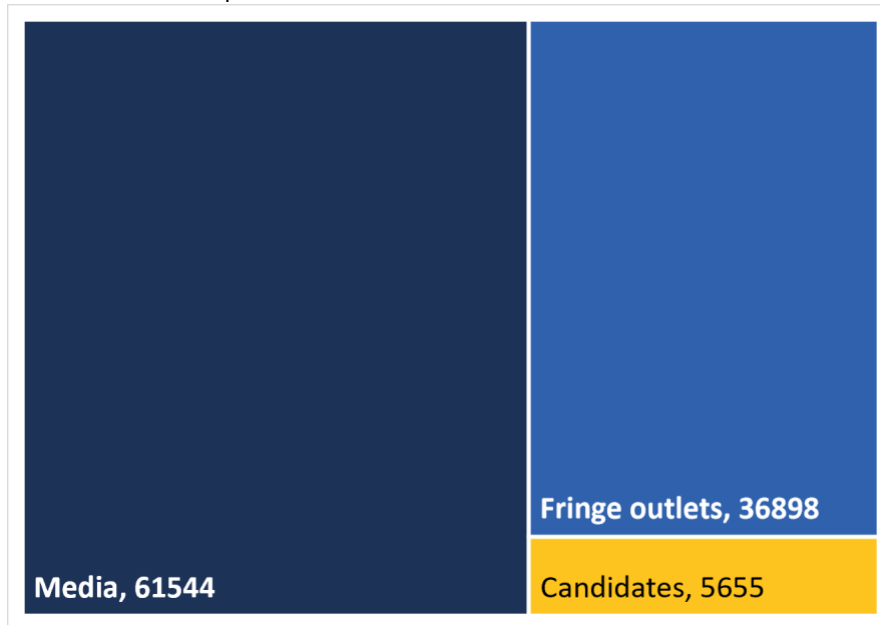
- **Sampling scheme**

Due to the high number of posts in total, 104 097, and limited human resources capacity, we had to limit number of posts for qualitative analysis. Thus, only 30 percent (30 909) of all posts were coded in order to get information about the main meta-narrative, topic and the tone of the post. Moreover, only posts from the selected periods were coded: from 26 March – 11 May and from 10 June – 12 July. These periods cover the official election campaign periods and exclude the period in-between the two elections.

We decided to code all posts from all presidential candidates, however, we had to sample posts from one candidate. Accounts from the two remaining categories (media and *fringe* outlets) were divided into three groups: (i) fully coded (13 channels), (ii) proportionally sampled (12 channels) and (iii) over-proportionally sampled (five channels).[23] We also removed five accounts entirely for the second phase of coding. Detailed division is presented in Chart 2.

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[23] Over-proportional sampling means a subjective and individual reduction of number of posts for analysis. Proportional sampling is made when using the same rate of reduction for more than one account

Chart 2: Sampling scheme

Legend:
- No. of non-sampled channels
- No. of oversampled channels
- No. of sampled channels
- No. of channels not coded in the 2nd phase

Data values:
- Candidates: 14 (non-sampled), 1 (not coded)
- Fringe outlets: 10 (non-sampled), 4 (oversampled), 2 (sampled), 2 (not coded)
- Media: 3 (non-sampled), 1 (oversampled), 10 (sampled), 3 (not coded)
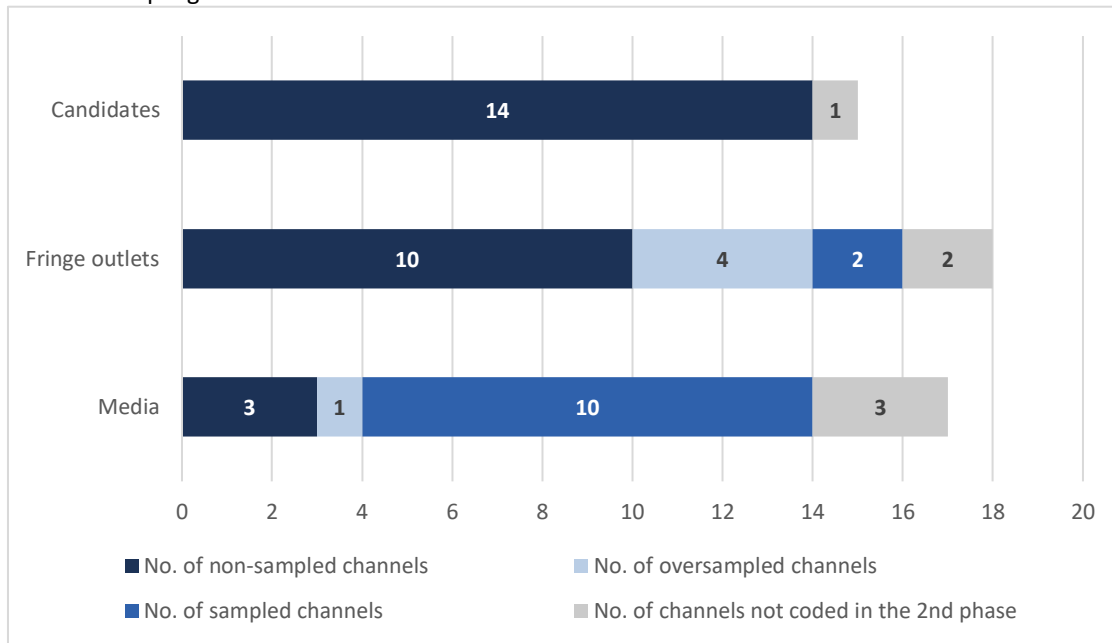
- **Compound indicators**

We have created four (4) compound indicators to be able to describe differences between posts and actors with greater precision. Each Facebook post may get likes or other reactions (named: love, support, angry, etc.). These types of reactions collectively created the **Click Index (CI)** which is just a sum of "clicks"/reactions under the posts of a given channel/account. Any user has also the possibility to (i) leave a comment under a post or (ii) share the post. While leaving a "click" is relatively easy for each user, leaving a comment or sharing the post requires more efforts and time and thus comments and shares are less common. For each type of channel/account (candidates, media and *fringe* outlets) there is a different ratio of number of comments and shares in comparison with clicks. For example, for the candidates channels, users were 5.5 less likely to leave a comment than to leave a "click" reaction. For media channels this factor is 2.9 only. This means, in brief, that readers of posts published by media outlets were more active in their responses to posts than readers of candidates' posts. Therefore, we decided to weight comments (**Engagement Index – EI**) and shares (**Range Index – RI**) accordingly to aforementioned ratio. Table 4 contains information about these multipliers.

Table 4: Multipliers for the Engagement and Range Indexes

Type of channel	Engagement Index	Range Index
Total	4.8	4.6
Candidates	5.5	8.8
Media	2.9	4.7
Fringe outlets	7.4	2.9

Total Index (TI) is just the sum of three compound indexes described above: CI + EI + RI.

- **Bubbles/Spreading factor**

Each Facebook account (channel) is characterised by the number of followers. Those are the people who decided to click "follow the page" in order to receiving updates about this account. This number of followers creates a "bubble" describing the 'size' of a given account or its 'popularity 'and importance for readers/social media users. We could also monitor changes in the number of followers across the time of observation, which allowed us to assess if the activity of a particular actor and materials posted on his/her/its account, resulted in a growing 'bubble' – increasing number of followers.

Technically speaking, the number of followers may increase or decrease during a given time, however, in order to leave a group of followers, any user has to specifically go to the followed website and click "unsubscribe", which does not happen very often. Therefore, it is practically impossible to observe a shrinking bubble.

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13. Annex I: List of narratives and topics

MetaNarratives	Topics
Technical Announcements	
COVID19	
	Gov information official
	Approach to measures undertaken by the Gov
	Health care system activity
	General information on COVID19/other sources
	Gov activity
	Supply of protection tools - doctors and nurses
	Movement restrictions
	Changes in education system
	Pro-health campaign (Zostań w domu)
	Conspiracy theories/fake
Elections	
	COVID19
	Boycot
	Rescheduling of election
	On schedule
	Postal voting
	Changes in Constitution
	Changes of the Electoral Code
	President Duda
	Mobilisation of voters
	Election campaign
	Local gov in election
	Opposition
	Candidates
	Legality of election
	Role of High Court
	Election opinion polls/surveys
	Karta Rodziny
Economy	
	COVID19
	Anti-crisis shield (Poland)
	Banks
	Gov activity - economy
	Employees rights/protection
	Unemployment
	Taxes/new taxes
	Pension system
	Support for companies
	Budget
	Social security measures
	500+/other
Government	
	COVID19
	Anti-crisis activity
	Elections
	Legal changes

Support for Polish companies
Managing the crisis
Privatisation
National security

International relations

EU
Non-EU relations

Church

COVID19
Help for COVID-infected/health care system
Masses - particicpants
Asking for donations
Role in politics

Public media

COVID19
Gov financing
Objectivity
Role in election campaign

Social issues

LGBT/Gender equality
Minority rights
Sexual education of children
Civil rights
Anti-abortion
Stygmatisation due to COVID

Rule of Law

COVID19
Movement restrictions
Bending of legal rules

Environment protection

Smoleńsk

10th anniversary in Warsaw
Visit to Smoleńsk

Fake news/Conspiracy

COVID19 - 5G
False health solutions for COVID
COVID exaggeration
COVID as human invention

Non of the above category

Discreditation of political opponents

14. Annex II: List of accounts

#	Name	FB Address	When observed
	__Candidates__		
1	Andrzej Duda	https://pl-pl.facebook.com/andrzejduda	
2	Małgorzata Kidawa – Błońska	https://www.facebook.com/MKidawaBlonska	Resigned ahead of the 2nd election
3	Szymon Hołownia	https://www.facebook.com/szymonholowniaoficjalny	
4	Robert Biedroń	https://www.facebook.com/RobertBiedron	
5	Władysław Kosiniak-Kamysz	https://www.facebook.com/kosiniakkamysz	
6	Krzysztof Bosak	https://pl-pl.facebook.com/krzysztofbosak.mikroblog https://www.facebook.com/SztabBosak2020/	
7	Stanisław Żółtek	https://www.facebook.com/Zoltek.Stanislaw	
8	Marek Jakubiak	https://pl-pl.facebook.com/marekjakubiak2/	
9	Mirosław Piotrowski	https://pl-pl.facebook.com/pg/MPiotrowski/posts/	
10	Paweł Tanajno	https://www.facebook.com/Pawel.Tanajno.publicznie	
11	Rafał Trzaskowski	https://www.facebook.com/RafalTrzaskowski2020/ https://www.facebook.com/rafal.trzaskowski	New candidate
12	Waldemar Witkowski	https://www.facebook.com/Wald.Witkowski/	New candidate
	__Media__		
1	TVP-Info	https://www.facebook.com/tvp.info	Not observed during the II election
2	TVN Fakty	https://www.facebook.com/Fakty.TVN/	
3	TVN 24	https://www.facebook.com/pg/tvn24pl/	
4	Polsat News	https://www.facebook.com/polsatnewspl	
5	TVP 1	https://www.facebook.com/TVP1pl/	Not observed during the II election
6	TV Republika	https://www.facebook.com/RepublikaTV/	
7	Gazeta Wyborcza	https://www.facebook.com/wyborcza	
8	Oko.Press	https://www.facebook.com/oko.press/	
9	Polityka	https://www.facebook.com/TygodnikPolityka	
10	Newsweek	https://www.facebook.com/NewsweekPolska	
11	DoRzeczy	https://www.facebook.com/TygodnikDoRzeczy	
12	wPolityce	https://www.facebook.com/wPolityce	
13	Nasz Dziennik	https://www.facebook.com/naszdziennik	Not observed during the II election
14	Niezależna.pl	https://www.facebook.com/NiezaleznaPL/	
15	Gazeta Polska Codziennie	https://www.facebook.com/GPCodziennie/	Not observed during the II election
16	Gazeta Polska	https://www.facebook.com/GazetaPolskaPL/	
17	Tygodnik Sieci	https://www.facebook.com/wsieciprawdy/	Not observed during the II election
18	Polska Prawa i Sprawiedliwa	https://www.facebook.com/groups/557598201008875/	Not observed during the II election
19	Onet	https://www.facebook.com/Onet/	
20	Wirtualna Polska	https://pl-pl.facebook.com/WirtualnaPolska	

Fringe putlets

1	Nie Lubię PiS'u	https://www.facebook.com/nie.lubie.PiSu/	
2	Sok z Buraka	https://www.facebook.com/sokzburaka/	
3	Marsz Niepodległości	https://www.facebook.com/MarszNiepodleglosci/	
4	Polska Moja Ojczyzna	https://www.facebook.com/OjczyznaMojaPolska/	
5	Polska Narodowa Rewolucja	https://www.facebook.com/NarodowaRewolucjaPolski/	Not observed during the II election
6	Szacunek dla licealistki …	https://www.facebook.com/szacundlalicealistki/	Not observed during the II election
7	Racjonalna Polska	https://pl-pl.facebook.com/RacjonalnaPL/	
8	Niezależny Dziennik Polityczny	https://www.facebook.com/NiezaleznyDziennikPolityczny	
9	Wolna Polska	https://www.facebook.com/WolnaPolskaInfo/	
10	Kresy PL	https://www.facebook.com/KresyPL	
11	Sputnik Polska	https://www.facebook.com/SputnikPolskaOfficial/	
12	Polska Niepodległa	https://www.facebook.com/PolskaNiepodlegla	
13	ZmianyNaZiemi.pl	https://www.facebook.com/portalZnZ/	Not observed during the II election
14	Neon24/Sendecki	https://www.facebook.com/TVneon24/	Not observed during the II election
15	Wolne Media	https://www.facebook.com/wolnemediapl/	
16	PCH.pl	https://www.facebook.com/pch24	
17	Wieści24.pl	https://www.facebook.com/wiesci24pl/	
18	Ośrodek Monitorowania Zachowań Rasistowskich I Ksenofobicznych	https://www.facebook.com/osrodek.monitorowania/	
19	Konkret24	https://www.facebook.com/konkret24.tvn24/	
20	Demagog	https://www.facebook.com/Demagog/	