

Public Agenda Fragmentation Beyond Established Democracies: The Case of Russian Online Publics in 2017

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New media introduce mechanics in the news consumption and deliberation of public agenda capable of disrupting the democratic process's normative assumptions (echo chambers, filter bubbles). However, most research has been concerned with cases from Western Europe and the US. In this paper, we examine the fragmentation of the Russian public sphere online. We build on previous works with evidence on networked connections between segments of the online public sphere. We collected news items (N=210,197) and metadata of 12 news outlets with offline and online reach posted on the largest Russian-language platform during one year (2017). Following a computational approach based on topic modeling and qualitative reading, we match the network segments with their news agendas. Although we do not find evidence of fragmentation, we find divergencies in their agendas. We discuss these findings and their contribution to the discussion of fragmentation of publics and agendas in the digital environment.

Keywords: public sphere; social media; agendas; Russian media system; fragmentation

Introduction

Liberal models of the public sphere are based on the assumption that a 'healthy' public sphere has a common core of issues defining the most critical problems for the state's attention (Moeller et al., 2016). In the absence of the common core, when segments of the public sphere cannot agree on the significance of a problem, let alone its existence, the democratic character of the political process is undermined (Ferree et al., 2002; Marcinkowski, 2008).

Current peculiarities of news consumption are linked to the growing penetration of the Internet into daily life. The popularity of television, radio, and print media as primary news sources is beginning to yield to online social networks (OSNs) (Papathanassopoulos et al., 2013; Shearer, 2018). Simultaneously, groups of people

(often young) consume media content exclusively on the Internet (Boulianne, 2018, 2019). Studies of news consumption suggest the emergence of qualitatively new conditions that cast doubt on the validity of theories developed in the era before the Internet (Bennett & Iyengar, 2008, 2010). The new environment presents a high choice of news sources and content selection matching to personal preferences. Research also explicates mechanisms that can violate the prescriptions of the normative models and may impact the 'health' of a democracy (Adamic & Glance, 2005; Barberá et al., 2015; Pariser, 2014; Sunstein, 2009).

Such studies show that these mechanisms are rooted in two problems: the design or infrastructure of OSNs and the propensity of individuals to connect by the principle of homophily (Barberá et al., 2015; Colleoni et al., 2014). The former creates conditions for so-called 'filter bubbles.' The latter creates so-called 'echo chambers.' Echo chambers are such structures in social networks on OSNs when users have a small chance to be exposed to challenging their beliefs and knowledge information or opinions. Filter bubbles, unlike echo chambers, can occur due to peculiarities of filtering algorithms, which use data reflecting user preferences to suggest new content, users and pages for subscribing. The result of these mechanisms is fragmentation of audiences, agendas, and, consequently, the public sphere (Davis, 2005; Minh Pham et al., 2020; Sunstein, 2009).

The public sphere theory and studies of fragmentation processes are mainly based on Western European countries and the US. Simultaneously, most studies were conducted only on the two most popular platforms in these countries – Facebook and Twitter (Rains & Brunner, 2015; Stoycheff et al., 2017; van Osch & Coursaris, 2014). So far, fragmentation in countries with less democratic regimes and different – from

Western countries – media systems remains poorly understood (Stoycheff et al., 2017; van Osch & Coursaris, 2014).

In this paper, we investigate the nature of the existing fragmentation of the Russian public sphere. We rely on the results of the analysis of behavioral data on news preferences of users of the largest Russian-speaking OSN VKontakte (Dokuka et al., 2018). Following Dokuka and colleagues, we show the presence of sets of clusters among the leading news channels identified based on user activities shared by some of these channels. Then we match them with the content of news items published by channels comprising these clusters. We show that agenda fragmentation and fragmentation by the nature of the criticism addressed to the government or its actions are to some extent pronounced, but they are strongly linked through their audience.

The presented research contributes to the discussion of fragmentation of the public sphere in conditions of the increasing prevalence of digital media diets. In other words, we contribute to the discussion of the impact of OSNs on the fragmentation of the public sphere, demonstrating in the Russian case the aspects of associations between public sphere participants and news sources.

The Russian case is of interest for the research because of its atypical properties of the political regime and media system. Unlike most studies examining liberal-democratic regimes, the Russian regime is characterized not as democratic but rather as 'hybrid' or authoritarian (Freedom House, 2020; Gel'man, 2015; Hale, 2010; OpenNet Initiative, 2010; Reporters without borders, 2020). With this in mind, following the logic of the liberal conception of the public sphere as most studies on fragmentation, one would expect that the Russian online public sphere would also display undemocratic traits that may manifest in its fragmented nature. As a consensus on the degree of coherence of the public sphere necessary to consider it democratic is absent,

in this work, we provide an exploratory analysis of fragmentation and offer a qualitative interpretation of it in the context of competing models of the public sphere. We conclude that we cannot speak about strong fragmentation in the Russian case and support the liberal model of the public sphere. The study contributes to the understanding of the link between the fragmentation of the public sphere and its value as an indicator of the regime's democratic character.

Theoretical framework

The public sphere is an essentially contested concept (Ferree et al., 2002; Rauchfleisch, 2017). We will focus only on two streams of theories and only on their most relevant aspects to our research question. The first strand ('liberal'), as the seminal work of Habermas (1991), pictures the public sphere as the realm between society and the state that holds democracy together. This realm, binding together media, citizens, and political actors into a discursive space, supports the process of deliberating issues of the common concern, forms the public agenda and the public opinion. Normatively speaking, it is the source of the democratic power that guides and constrains the state. In such an arrangement, the media's role is to supply this space with information about current affairs, government actions, and the spread of opinions. These authors assumed the public sphere as a wholesome, singular entity, an undivided space for all participants to deliberate over the public agenda. Such view explains why its fragmentation observed in the digital environment is being seen as problematic (Davis, 2005; Marcinkowski, 2008; Minh Pham et al., 2020; Sunstein, 2009). A major concern of normative theorists about this fragmentation is that a fractured or 'balkanized' public sphere cannot provide a broad public consensus on the set of the most important issues and cannot exert sufficient control over the state in addressing them. Most empirical evidence suggests that such concerns might be exaggerated and misleading (Bruns,

2019; Van Aelst et al., 2017). Findings from the US and the West-European societies show that the core audience still prefers to follow mainstream news sources and remain skeptical of news selection (Fletcher & Nielsen, 2019; Moeller et al., 2016). However, evidence from other socio-political environments is still needed (Luo et al., 2019; Weimann & Brosius, 2016).

The second strand transformed Habermasian original idea from the vision of the public sphere as a single communicative space shared by some majority to a more networked entity with greater range of voices and practices (Castells, 2008; Crossley & Roberts, 2004; Fraser, 1990; Hardt & Negri, 2005; Mouffe, 2013). For instance, Dahlgren (2005) defines the public sphere as a constellation of communicative spaces linking together media, audiences, and political actors. Moreover, such theories question consensus as the goal of deliberation and possibility of defining the common core of public agenda. These authors view the public sphere more like an arena rather than a public space for rational discussions restrained by hegemonic practices of privileged groups. At the same time, these conceptions do not assume that the public sphere is an exclusive feature of a democracy. Political regimes shape the public sphere's structure and its fragmentation can vary as regimes can. These theories and their critic of the liberal conceptions are mostly overlooked in the 'alarmist' fragmentation studies. Notable examples from this trend are the following works (Baysha, 2018, 2020; Bodrunova & Litvinenko, 2013; Smoliarova et al., 2020; Tong, 2015). However, the applicability of these theories to non-democratic regimes is still could be explored (Toepfl, 2020).

In studies of fragmentation, digital media ecology is considered fertile ground for political polarization manifested in echo chambers and filter bubbles (Flaxman et al., 2016; Sunstein, 2009), given the known tendency of individuals to select information

matching personal preferences and connecting with other people based on their closeness to oneself (Barberá et al., 2015; McPherson et al., 2001; Tucker et al., 2018). Specifically, scholars speculate about weakening of the media's power to shape the public agenda and question the core theories such as the agenda-setting (Bennett & Iyengar, 2008, 2010; Chaffee & Metzger, 2001). In what Bennet and Iyengar called 'a self-selected message world,' media effects are decreasing while people's ability to select media content for consumption is increasing. When the media environment is so personalized, self-selected, and diverse, is it possible to claim that media set the public agenda (McCombs, 2005, pp. 544–546, 2014)? So far, as Weimann and Brosius put it, the answer is 'confusing': despite this diversity and personalization, empirical studies show that agendas become more homogeneous and offline media remain influential (Weimann & Brosius, 2016, pp. 29–30). However, will this be true for the non-democratic public spheres where the state influences media to advance the agenda of the political leadership of the regime?

The most recent attempt to extend the public sphere theory to non-democratic regimes is the 'authoritarian publics' framework proposed by Toepfl (2020). This framework assumes a 'public-sphere-at-large' consisting of several 'partial publics.' Here, a 'public' is a convenient term for the same spatial metaphor underlying the public sphere theory; it is a subspace inside a larger space ('sphere'). Toepfl suggests viewing the public as a constellation of three elements: participants, communicative environment, and discursive practices. According to him, participants include speakers and audiences, such as media organizations, OSN users, journalists, etc. An environment surrounding participants' communications is to be specified depending on the research question. And discursive practices are 'patterned discursive activities that

can be observed by researchers and used as markers to delimit a public' (Toepfl, 2020, p. 110).

The 'authoritarian publics' framework also provides a tripartite typology of publics conceived from the studies of the Russian media. According to Toepfl, in such regimes, a crucial discriminative feature between different types of publics is their level of criticism of the political regime. Public of Type I is uncritical towards the policy and the country's political leadership. Type II is a policy-critical public that avoids criticizing the political leadership but criticizes some of its policies or lower-level officials. Type III is leadership-critical public that is involved in both policy and leadership criticism.

Although comprehensive and agile, this framework lacks elaboration of its 'authoritarian' component. In our view, the framework downplays the part media-systems play in authoritarian regimes. Since what is spoken about depends on who is speaking (Fraser, 1985), the power that authoritarian regimes have to influence media agendas must be accounted for (Bodrunova et al., 2020). Such influence is most visible in media agendas when some issues receive more salience at others' expense (Koltsova & Pashakhin, 2020). Issues are combined in an agenda set aiming to position the political leadership in a favorable light or exclude sensitive problems that can prompt criticism of the leadership or their policy. In this regard, the 'authoritarian publics' framework can benefit from incorporating the dimension of media and public agendas. Now let us consider the conceptualization of agendas and their links to fragmentation and democracy.

To investigate whether the non-democratic public sphere is fragmentizing in the digital environment, we propose the following framework. First, we assume that the 'public-sphere-at-large' is a constellation of communicative spaces; it is a network

observed in individual engagement with statements of participants of the public sphere. Clusters in such a network are the public spaces where participants with similar concerns gather to discuss the issues they find important for everyone. The defining distinctions of these clusters might be in both the discursive practices and their agendas. Moreover, we expect that they could differ in their practices surrounding the same agenda item. For example, in Toepfl's terms, policy-critical publics and leadership-critical publics could be indistinguishable in their practices while discussing a policy issue, but they could differ in the broader sense of where their attention is directed.

Further, building on Toepfl's (2020, p.110) work, we consider publics as consisting (but not limited to) of three elements: technical environment, communicative clusters (or spaces) in networks of participants, and their agenda sets. In our case, the environment is specified in terms of the technological platform (an online social network) and distribution channel (news media). The communicative clusters are estimated subspaces of the public sphere. Given the specified environment, we operationalize publics as the networks where the nodes are the news media, and the edges are the acts of an individual's engagement with the content if these acts are shared by the media under consideration. Engagement may involve commenting, liking, sharing, or other available activities. The weight of an edge between two media outlets as nodes is the number of shared acts of engagement from the same or different users. Communities detected within such networks are the aforementioned communicative clusters. Finally, agenda sets are sets of topics that tend to occur in the same texts. Thus, we can estimate the prevalence of agendas for each cluster aggregating news items published by a cluster's elements. Then, agenda sets could be examined in terms of their convenience for the regime's political leadership.

In our research, if we find distinctive clusters that clearly differ by their type of government criticism, this will suggest that authoritarianism may exert a fragmenting effect on the public sphere. If otherwise, the results will suggest that fragmentation could be an unreliable trait for differentiating democratic from non-democratic regimes.

The Russian Public Sphere

During the Soviet period, the control of public expression and ideological propaganda was thorough. Any dissent was punished, and critical discourses were pushed underground. The situation changed with enacting the glasnost' policy (Malinova, 2007; Yurchak, 2005). For a brief period, the Russian media system were thriving until the start of Vladimir Putin's tenure, marked by systematic efforts to consolidate informational channels around the political establishment and their agenda (Litvinenko & Toepfl, 2019).

Political scientists describe Russia's regime as electoral authoritarianism, which is trying to legitimize itself as a chosen by the public through the orchestration of an elaborate facade of democratic institutions (Gel'man, 2015; Hale, 2010). The exact hybrid nature of democratic covers over authoritarian contents is aptly captured by Gel'man's notion of 'half-freedom of speech' (Gel'man, 2010; Gel'man, 2014). Such logic favors controlling and omitting uneasy topics and personalities to their complete ban. For instance, although oppositional voices are absent on state-controlled national television, at least two private TV channels can broadcast critical perspectives (Oates, 2016). Control over independent news coverage and political expressions online had been relatively loose until the watershed 2011 protests (Gainous et al., 2018; Lonkila et al., 2019). Recognition of the Internet as a threat came quickly and brought about an ongoing sequence of policy interventions and selective punishments, increasing the costs of political expression on the Internet.

The Russian Internet (Runet) had been under the regime's attention long before the 2011 protests yet enjoyed relative freedom before them (Sherstoboeva, 2020, p. 91). Runet developed dissenting communities on the early social platforms such as LiveJournal and VKontakte (VK), deemed at the time harmless by the regime, they birthed many independent news outlets publishing for online audiences (i.e., Gazeta.ru, Lenta.ru, Grani.ru) (Konradova, 2020; Oates & Lokot, 2013). In 2017, an orchestra of laws regulating political expression online provided means: to ban websites for the spread of vaguely defined extremist information, and for inciting unauthorized protests, to hold bloggers with more than 3,000 daily visitors legally constraint as mass media without the same privileges, and to treat libel as a criminal offense. Simultaneously, consistent with the Kremlin's framing of Runet as a 'besieged digital fortress,' the regime had the power to label any NGO or media organization as a 'foreign agent' if they received funding outside Russia (Lonkila et al., 2019, p. 9). This power is coupled with the regulation of news aggregators that treats them as responsible for news published by media without Russian registration. On another front, the establishment actively coopted critical Runet media into either government-controlled or friendly to the Kremlin business structures (Pallin, 2017). The most important for this study example is VK which acquisition by Mail.ru Group led its founder to flee the country. However, the hybrid logic of managing dissent with selective punishments still permitted Runet to have news outlets independent from the Kremlin's agenda and keep the critically oriented public informed albeit without unrestricted ways to express grievances (Lokot, 2018).

Data and Methods

Our research analyses the news feeds of the most popular Russian news media pages in VK OSN. News consumption in Russia follows worldwide trends of digital media's

growing popularity as news sources. With Internet penetration of 72—73% (FOM, 2018; GFK, 2019) in 2017, Russian audiences consider OSN second to TV in trust and popularity (Levada, 2020a, 2020b). We chose VK as it is the largest social network in Russia and the CIS region with a monthly active audience of 97 million users and similar to Facebook features (VK, n.d.). Given VK's popularity, every major Russian-language outlet has a public page hosted on the platform. Moreover, VK provides wide access to its data via API.

We selected news channels based on their popularity both on the OSN and their offline reach (table 1). The sample includes TV channels and a news agency *RIA Novosti* without an offline presence that serves as a source for other major news outlets. In addition to the most popular TV channels that are, as mentioned above, owned by the state, the sample is supplemented by two private channels not affiliated with the state – *TV Rain* and *RBC*, to contrast socio-political agendas projected by the state with, presumably, less biased or more critical to the state media. We aim to capture news agendas that the general population is likely to be exposed to during a year (2017). Along with posted messages (N = 210,197), we collected their metadata: date of publishing, numbers of comments, likes and shares, and lists of channel subscribers.

[Table 1 goes here]

In our search for online spaces of the public sphere, we build on the result of Dokuka et al. (2018) reporting four interconnected clusters of news channels' pages in VKontakte OSN identified through shared activities of their audiences members. The clustering procedure was performed on the dataset used in this paper in the previous stage of this research. It was based on the five two-mode networks of news channels interconnected by different user activities: subscriptions, comments, reposts, likes, and likes to comments. These networks were converted into weighted one-mode networks to

find links and distances between the channels where each link represented the number of users a pair of nodes share. Since it is possible for these dimensions of the public to differ, these networks were tested for correlation using the quadratic assignment procedure. All networks turned out to be correlated. Finally, the distance between nodes was estimated with the Jaccard index to find groups of similar nodes in each network. The similarity between the nodes was estimated along all five dimensions, and the condition for defining the cluster boundaries was that the nodes must be more similar to other nodes within the cluster than with those outside it.

The composition of clusters is presented in Table 2. In 2017, private news outlets clustered into one group (cluster 1), while major state-affiliated TV channels clustered into another group (cluster 3). Channels without offline presence represent a separate cluster (2). Relatively minor TV channels are grouped into another (4). While it is possible to distinguish clusters in these networks, the degree of their overlap is huge (modularity = [0.08, 0.14]); thus, no signs of echo chambers are observed (Dokuka et al., 2018, p. 18).

[Table 2 goes here]

To estimate agendas and their relations with a given public, we follow a computational approach based on topic modeling. Topic modeling is a family of machine learning algorithms designed to estimate the number of latent variables (topics) given a document collection with associated word distributions (Wesslen, 2018). Topic modeling allows an empirical analysis with minimal expectations constraining data and manual labor (DiMaggio et al., 2013). Additionally, topic modeling can work with large document collections.

Several topic modeling-based pipelines for the task of agenda extraction have been proposed (Kim et al., 2014; Koltsov et al., 2018; Korenčić et al., 2015). All of

them agree that a topic estimated with an algorithm could be interpreted as an agenda item. Most approaches agree on the pre-processing procedures and start to diverge on the step of choosing an algorithm and its parameters. For a social scientist, this choice lies between basic topic modeling, such as Variational Latent Dirichlet Allocation (VLDA, Hoffman et al., 2010) and the Structural topic model (STM, Roberts et al., 2016), an extension of VLDA designed for social scientists (Roberts et al., 2013). The 'structural' in STM refers to the use of document-level information in building a model. This allows making inferences about the relationship between metadata and topic prevalence with GLM-like models. Moreover, it allows measuring correlations between topics and grouping related topics into clusters. STM requires a researcher to specify how many topics an algorithm must find. We choose to follow the STM library's approach. To ensure reproducibility of topics, we choose the following strategy: we fit five models, estimate topic similarity across all solutions and choose topics that reproduce at least three times with a similarity threshold $\geq 90\%$ for further analysis (Koltcov et al., 2014).

Following the described procedure, we identified 46 topics, two of which turned out to be uninterpretable during the markup procedure done by three independent coders (Krippendorff's $\alpha = 0.8$). The following analysis will focus on the 42 interpretable topics. Then, we used STM functionality to explore correlations among extracted topics and the fast-greedy algorithm to find groups of associated topics or agenda sets (AS). We used close reading of 100 texts from each topic of each AS to identify whether they support favorable positioning of the political leadership and its policy. Finally, we used STM build-in functionality to estimate relationships of four communicative clusters of news channels identified in the earlier paper (Dokuka et al., 2018) with the five agenda sets identified in this research by STM.

Results

Figure 1 shows a network of correlation between the five agenda sets identified by the fast-greedy algorithm. Each node on the graph is an agenda item, and each link is a significant positive correlation between the two topics. The observed groups of related agenda items indicate that they are likely to co-occur together in the same texts. A close reading of most typical texts in each topic allows us to label each AS according to its stance on the political issues, the establishment, and its policy: establishment-critical, establishment-favorable, foreign issues, 'non-political,' 'politically irrelevant.' The 'establishment-critical' set (AS1) is labeled so because it contains agenda items potentially inconvenient for the current political leadership (such as domestic economic problems and protests). The establishment-favorable set (AS2) pays no attention to domestic problems and avoids covering events and personas linked to the Russian opposition. Foreign issues (AS3) co-occur together so often that the algorithm grouped these items. AS4 and AS5 focus on agenda items without current political relevance. However, AS5 has political content that is not relevant to our research question: sports (including some coverage of the doping scandal) and coverage of WW2 commemorations and related content such as Soviet movies about the war.

[figure 1 goes here]

Thus, AS1 is the set of the issues least favorable for the political leadership in our dataset. It includes news coverage of the Russian opposition and 2017 anti-corruption protests connected to Alexei Navalny, the domestic economy's coverage, and surveys on social and economic problems. It also includes TV Rain items with excerpts from its infotainment programs on Russian politics known to be critically oriented toward the political establishment.

We find AS2 to be the most favorable towards the political establishment in our dataset as its issues are covered uncritically. Its core includes coverage of the ongoing 'war on corruption,' the construction of the Crimean bridge; it also avoids domestic problems such as protests and the domestic economy. The avoidance of problematic issues is compensated by focusing on foreign and international affairs, including hard news on terrorist attacks and plane accidents. This compensation for lack of coverage of domestic issues is even more evident considering the composition of AS1. The latter is devoted to international and foreign affairs. Its core is constituted by the coverage of the Ukrainian crisis, the US-Russia relations, and the Russia-related doping scandal, which resulted in Russia's exclusion from major international sports events. Moreover, AS3 includes a separate topic on Russian foreign politics and its struggle with the international sanctions. Foreign issues are hard to classify in terms of their role in the image formation of the political establishment. These are polarizing matters that the opposition and the political leadership can use each to their advantage.

Finally, as mentioned above, neither AS4 nor AS5 are unrelated to politics. AS4 consists of three topics: stories on animals and pets, celebrities and gossips, as well as fundraising campaigns for the treatment of children with medical emergencies. AS5 includes weather forecasts, coverage of WWII commemoration events, sports, international movies, music awards, and various announcements, ads, and promotions.

It should be noted that the identified clusters are not, so to speak, 'pure' in their composition to uphold the chosen labels. Thus, the 'establishment-critical' cluster includes coverage of presidential elections in France, coverage of Donald Trump and Vladimir Putin, while the 'establishment-favorable' set includes reporting on prosecution of state officials charged with corruption. The latter is one of the main issues of the Russian opposition and protests present in the respective topic.

Figure 2 presents estimated by STM mean topic proportions in public clusters as covariates grouped by agenda sets. Here, the higher the box's position visualizing an agenda set, the more it is associated with the respective cluster of news channels. First, we can observe a clear distinction between clusters 1 and 2. Cluster 1 is predominantly composed of establishment-critical agenda items and provides coverage of the Russian opposition. Cluster 2, on the other hand, is focused on serving as much content on foreign and international affairs as cluster 1 serves critical content. However, cluster 2 does not entirely avoid topics inconvenient for the establishment; they are as much salient as the favorable content on domestic matters but still form a strikingly smaller proportion than international issues. Clusters 3 and 4 have little content on politics or domestic issues but are the primary entertainment and other neutral content providers.

[figure 2 goes here]

A more nuanced picture can be drawn by a topic-level analysis of agendas prevailing in the four clusters of news channels (see appendices). Cluster 1 consists of two private outlets: RBC and TV Rain, which serve their audience online while having a limited offline presence. The core of cluster 1 is the domestic economy's coverage, Russian politics, and the opposition. However, it also features neutral and non-political content. The fifth most served topic covers Vladimir Putin, a topic dominated by state-affiliated outlets. The non-political repertoire of cluster 1 includes coverage of the Russian orthodox church, science, literature, and arts – the so-called 'high-browed' content. Being domestically oriented, cluster 1 still serves news on terrorist attacks worldwide.

Cluster 2 is represented by two state-affiliated outlets: RIA Novosti and Russia Today. They do not have offline broadcasting on Russian television, yet they are highly popular on social media. Additionally, RIA Novosti is an old and large news agency

with a lasting reputation as a politically neutral body. The core of their agenda is the coverage of the Ukrainian crisis, the Syrian war, the US-Russia relations, and the Russian foreign policy with its struggles during international sanctions. They also serve news on soccer games, Vladimir Putin, terrorist attacks worldwide, and some on the domestic economy. Finally, they cover the Russian opposition, but its presence in the agenda is so modest that it does not make the top ten issues.

Cluster 3 is the largest of the four clusters composed of state-affiliated or controlled outlets: Channel 5, NTV, Vesti, Russia 1, Channel One, and Kultura. We observe non-political content on fundraising campaigns, various promotions and ads, plane accidents, and terrorist attacks at the top of their agenda. These channels also focus on sports and coverage of the WW2 commemoration (a yearly national event and a holiday) with traditional broadcastings of military parades, the main of which takes place in Moscow and features Vladimir Putin. In the entertainment segment, they focus on Soviet cinema (often broadcasted during the WW2 commemoration holidays) and popular actors of the Soviet epoch.

Being smaller and containing two state-affiliated TV channels: TVC and MIR, cluster 4, in its content, is almost indistinguishable from cluster 3. It also serves content on Soviet movies and celebrities, covers WW2 commemoration and sports. Nevertheless, its content is even farther from political realities (apart from the coverage of Vladimir Putin), which is substituted with the content on science, celebrities, and gossips. These channels are also active in promoting fundraising campaigns for children with medical conditions requiring expensive treatment.

Conclusions and Discussion

In this work, we explore the Russian online public sphere to investigate the extent of its fragmentation in terms of audience's inclination to cluster around specific groups of

news channels and in terms of certain agenda sets' tendency to prevail in these groups of channels. We used a sample of twelve most popular news outlets with online and offline reach and two influential news agencies. We matched the four clusters of news channels that had been identified based on the shared activities of their audiences (Dokuka et al. 2018) with the content of these clusters. These clusters' activity-based nature has allowed us to regard them as subspaces of the public sphere or as communicative clusters of this sphere. To identify the agendas prevailing in each cluster's news channels, we collected news items posted by these channels during the entire 2017 year, fitted a set of topic models, and retrieved clusters of agendas that commonly co-occurred in the same texts (agenda sets). Finally, we mapped these agenda sets to communicative clusters to explore fragmentation in the public sphere.

This fragmentation would be fully present if the boundaries of communicative clusters of news channels coincided with agenda sets' boundaries and would be supported by high modularity in the network of news channels connected by user activity. There are no commonly agreed-upon measures of determining how disconnected a public sphere should be to be considered fragmented; the best example may be the case of political polarization in the US (Tucker et al., 2018). Therefore, we relied on qualitative interpretation of the obtained results.

First, we see that the engagement data is clustered only very modestly (Dokuka et al. 2018, p.18). Our sample of the public sphere online could be grouped into four components gathered around two or more news channels with similar content. These groupings reflect differentiation in news preferences on social and political issues starting from a zero interest to a high interest.

Politically engaged components are differentiated by preferences in news quality and channel affiliation with the state. Thus, we find two groups seeking high-quality

content either from state-affiliated or private media. However, despite such division, we do not find enough evidence to state that we observe fragmentation, as all components are connected without any signs of exclusion from the communicative network.

Second, we find five agenda sets. Inside the socio-political domain, agendas group into three sets: a set of topics critically oriented towards the political leadership of the country; a set of topics supporting the political leadership but permeating critical coverage of some policy issues; and a distinct set of international issues involving the political leadership. Here the differentiating principle is the degree of support for the political establishment and connected policy. Overall, this spectrum matches the observed private/state-affiliated division with underlying gradation in news quality.

Thus, private channels represent the public paying attention to domestic issues from a critical perspective. These participants prefer 'hard news' and relatively 'highbrow' content, and they are open to engaging in exchanges on topics undermining the authority of the political leadership and their policy. The second segment similarly follows 'hard' content but avoids open criticism of the political leadership. However, some selected issues open a way for criticism of the policy, such as corruption among state officials. Nevertheless, beyond corruption, the domestic problems are overshadowed by the media attention towards international issues. This news stream highlights political leadership struggles with international sanctions and success with the military campaign in Syria. Finally, the 'lower-quality' segment balances entertaining topics and agenda items supporting the political leadership.

Third, what emerges from these results is not a picture of a fragmented public but a network of several publics engaging with one another. Despite the described differences, communicative networks bind together these partial publics into a space that could be described as 'opinion crossroads' rather than 'political polarization'

(Bodrunova & Litvinenko, 2013; Dokuka et al., 2018). As Toepfl (2020) argues, the complete exclusion of critical publics can be harmful to the political leadership, and some inclusion – with careful control – can be beneficial. We find evidence of such control in the overshadowing of domestic problems by stories on international matters and careful attention to a selected range of policy issues safe for criticism. These control efforts combined can manage public attention, awareness about the strength of the critical sentiment among participants, and the salience of selected public concerns such as corruption.

These findings support the argument that the fragmentation concerns are overstated (Bruns, 2019; Dubois & Blank, 2018) not only in the democratic context, but even outside it. The fragmentation statement assumes a liberal public sphere model that pictures it as something unified. As critical reflections on liberal models argue, it is rarely the case (Castells, 2008; Fraser, 1990; Mouffe, 2013). Our findings suggest that the public sphere is a complex system of networking entities where some entities can dominate by pulling attention and structuring the mainstream discourses, and no entities are entirely separated from the mainstream. Thus, these findings suggest that the degree of fragmentation of the public sphere may not serve as a reliable criterion for distinguishing democratic regimes from non-democratic ones.

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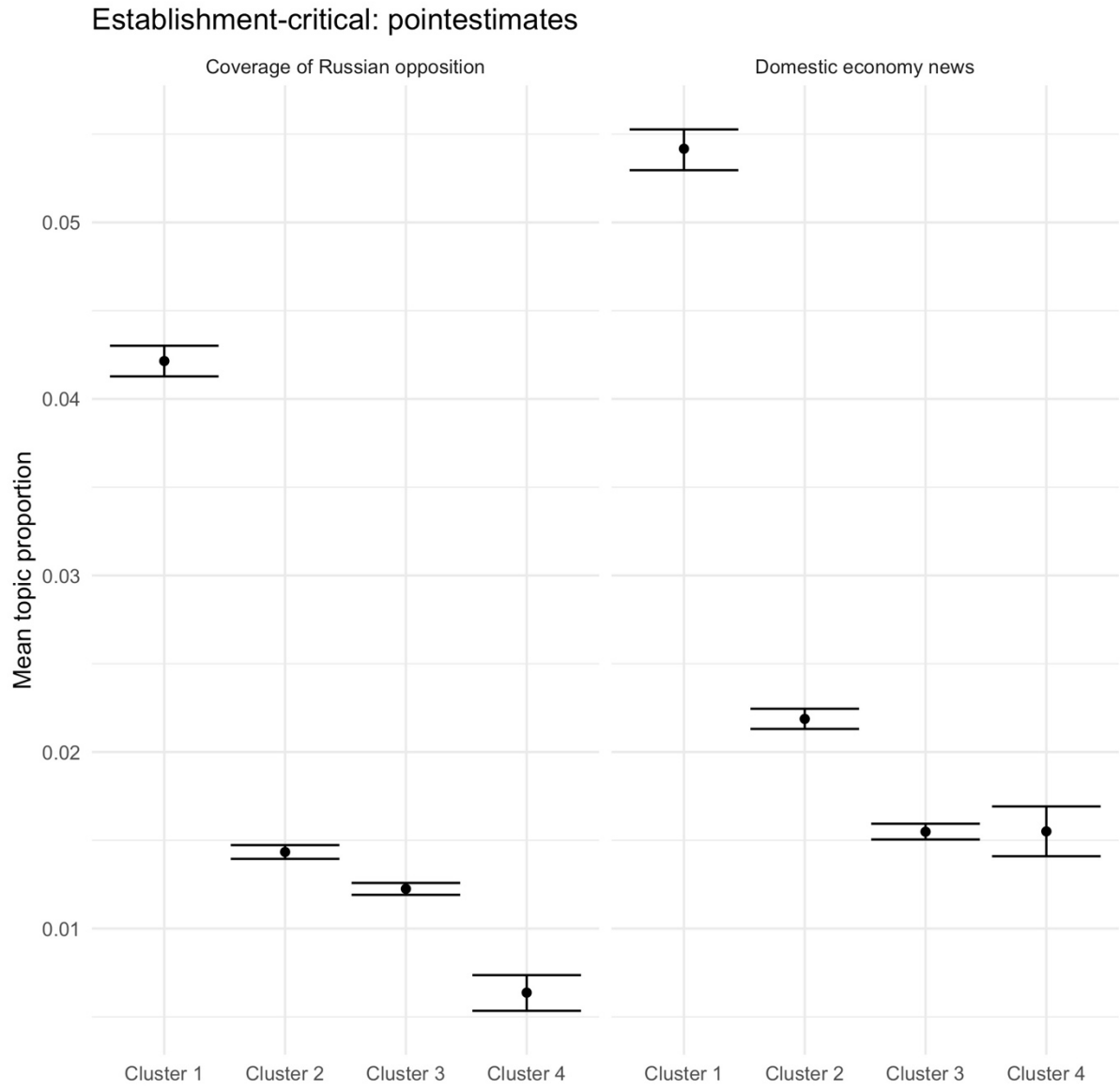
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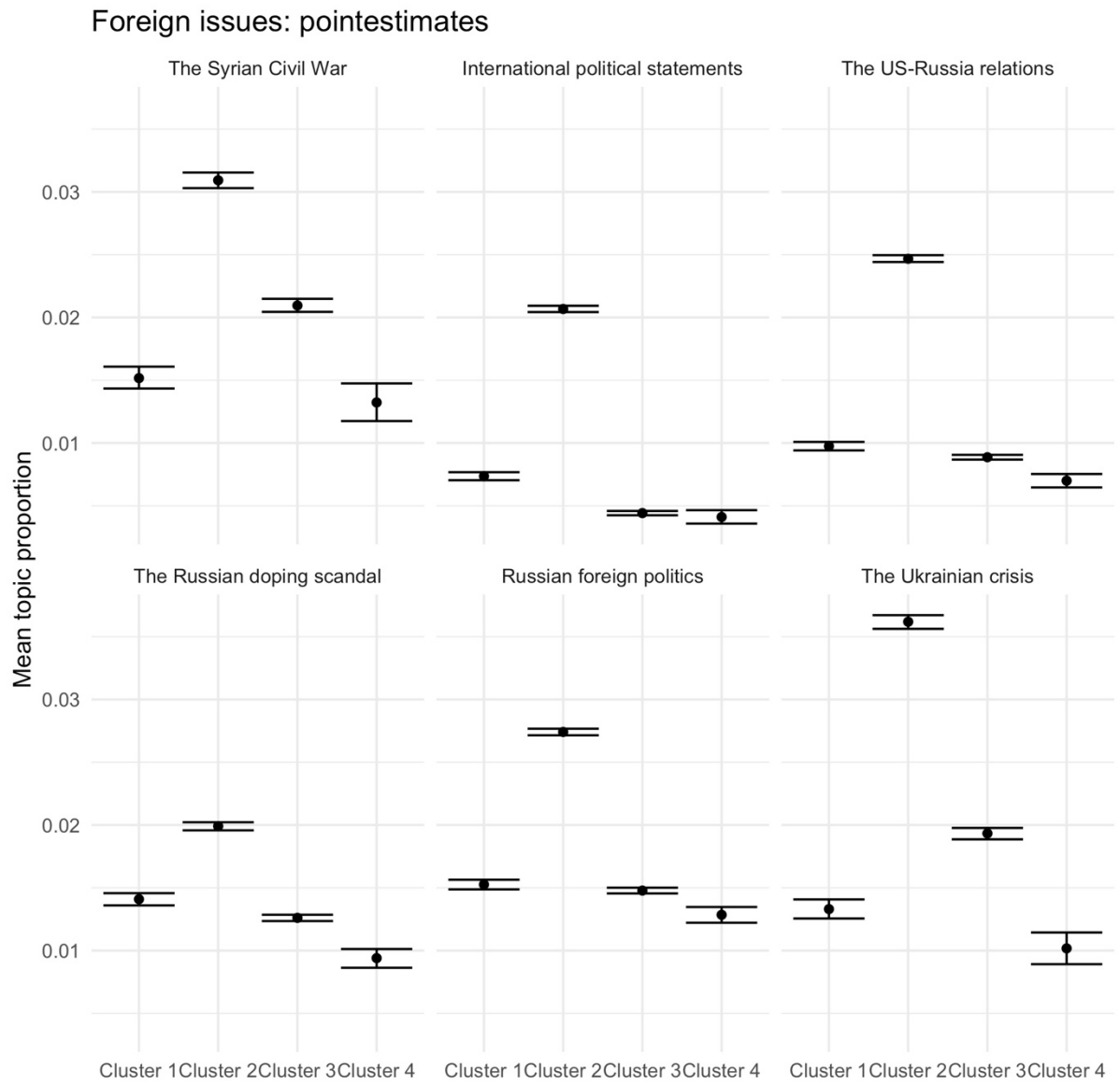
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Appendices

A. Selected topics the agenda set 1



B. Selected topics of the agenda set 2



C. Selected topics of the agenda set 3

