Discourse of Complaining on Social Networks in Russia: Cumulative Opinions vs. Decentering of Institutions

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Abstract. Social networks have become a platform for expressing dissatisfaction, support, and social tensions in general. During the pandemic of COVID-19, the audiences' need to find solutions and answers has put heavy burden on authorities and professional journalists. The study addresses the question of to what extent a social network can provide space for deliberation in tackling social issues that organizes the public dialogue for problem solving. Also, we ask whether traditional media and political actors preserve their important roles as major deliberative actors. For answering these questions, we have conducted three-step research. On the first stage, we qualitatively assessed the complaints and responses to them in media-like accounts on VK.com and Instagram, local media, and official portals, as well as conducted 21 structured interviews to contextualize the practice on online complaining in Russia. Then, we collected user comments to posts that contained complaints from 63 accounts on VK.com in 21 regions of November 2020 and February 2021. Via textual analysis, we defined the dominant topics of complaints and the dominant discourse around complaints, as well as the potential for growth of conflict or possible harmonization of discussions. By expert opinions, local media and authorities react differently to the increase in the intensity of complaints. They feel pressure from the platform audiences to increase their involvement. Despite this, neither the nature of the discussions nor the roles of media and authorities' accounts help turn the discussions into deliberative spaces. We have discovered an institutional vacuum in the VK.com discussions, as well as nearly complete absence of deliberative discussion patterns. More often, user comments produce cumulative opinion spaces within complaint-containing commenting, quite in opposition to the normative view of deliberation processes on social media. The result of smoothing out emotions is a fragmented, even if intense, discourse where solutions are not discussed.

Keywords: Social networks · Complaints · Deliberation · Cumulative deliberation · Decentering of journalism · Local journalism · VK.com · Social network analysis

1 Introduction

Social networks in Russia have become not only a source of hyperlocal news in Russian regions but also a space to share emotions and, in particular, complaints. Users utilize accounts of officials and politicians to express their discontent. This, allegedly, leads to changing the chain of aggregation and articulation of public claims [1] from 'people – media – government' to 'people – government – media', as local media, including pro-governmental ones, tend to use the officials' social media accounts as a source of human-interest stories based on complaints.

Today, hyperlocal media, including local newsgroups and similar accounts on social media, play a huge role in news flows [2], but there is no answer to what extent they invest in democratization in countries with no long democratic tradition. Speaking about Russian hyperlocal local newsgroups as 'the new entrants in the local media space of the Russian province that have recently become important actors of regional public communication' [3: 1] on social networks, we should underline that their potential for democratic discussions is challenged by local authorities' information policies and activities. That is, the platforms intended to be open for discussions, in fact, see their audiences to be limited in expression by many factors, from platforms' rules and affordances to legislation punishing the spread of fake news.

The purpose of this study is to explore the role of social networking platforms in the formation of engaged deliberative communities of local citizens, as well as the role of media and authorities' accounts in organizing substantial discussions around user complaints. To do this, we describe how journalists use social networks in the work of hyperlocal media, and what role criticism and complaints disseminated in social networks play in the local news discourses. Then, we formulate exploratory research questions on responses of authorities and media to user complaints, the topicality of complaints, and the perceived roles of media and authorities in dealing with the users' discontent.

To address them, we analyze 180 posts collected from 30 local newsgroups on VK.com (ex-VKontakte) and Instagram most popular in regions of Russia, as well as comments to them (15,299 altogether) and 21 structured interviews with regional experts and officials. The chosen accounts were especially popular in the selected regions. Of these, we selected posts that gathered the most massive user response. Descriptive statistics and interpretive reading techniques were used to receive the answers to the research questions. Network analysis was applied to show how discourses of complaints are being shaped.

The regions have been chosen according to Natalia Zubarevich's concept of 'four Russias' which represent different clusters of industrial and social development [4]. Selected regions reflect diversity of media markets and landscapes, as well as of audiences' demands of critical discussions in social networks. To finalize the list of regions, we have used rankings of social media accounts by Medialogiya and BrandAnalytics media analysis agencies: Arkhangelsk, Dagestan, Irkutsk, Kaliningrad, Karelia, Krasnodar, Krasnoyarsk, Kursk, Leningrad region, Moscow region, Murmansk, Nizhny Novgorod, Northern Ossetia, Novosibirsk, Rostov-on-Don, Ryazan, Samara, Surgut, Tyumen, Velikiy Novgorod, Yakutsk.

By the discourse of complaining, we mean a set of user comments published under news messages on public pages within social networks, aimed at drawing the attention of the audience, journalists, and local authorities to social problems in a particular region. The discourse of complaining is based on two key intentions: First, to share emotions and get support from the audience of the newsgroup, and second, to get the attention of significant communication actors, raise public awareness, and to achieve positive changes in real practice. However, according to the experts (including those from BrandAnalytics), a leader in social media analytics in Russia, only a very limited number of users return to their complaints on social networks, even if the latter receive a response from decision makers. Moreover, only few complaints have a potential to affect policymaking on higher levels, as mostly they remain unheard outside of social networks. This is why the factors that affect the efficiency of user complaints must be researched upon, and, among them, the activities of traditional deliberative actors within the new communicative realms are of special importance.

2 Complaining as a Media Practice

2.1 Deliberation or Opinion Accumulation? The Community-Building Capacity of Social Networks

In Russia, the audiences of hyperlocal social media, as a rule, do not form clearly shaped communities. These are scattered individuals who use local platforms to take out discontent and criticism, more often for the purpose of emotional relaxation than for real problem-solving. High numbers of commenting on social media groups may be mistaken for user engagement; however, despite the popularity and virality of some single posts, we need to ask whether there is true engagement of local audiences in discussing the issues relevant to them on hyperlocal news sources (both the hyperlocal media of traditional provenance and the newsgroups on social media), which would form (hyper)local deliberative communities. As the concept of cumulative deliberation suggests, opinions online form mostly via gradual accumulation and aggregation of homophilic views (if at all detected within white noise), rather than via substance-oriented, rational, and consensus-aiming round-robin deliberation [5]. Thus, exploring the nature of discussions around complaints which represent the public sore points may cast light on how deliberation works on the micro-level; in particular, whether the discussion patterns are traditionally deliberative or cumulative.

As earlier theory suggests, the community-bound relations between (hyper)local media of various nature, their audiences, and the local decision-makers reshape the agenda-setting process in local communities, making this process a participatory one where 'members of the general public can… act as advocates within their respective direct environments, by advancing the agenda in question and playing an active part in the relevant transformation processes' [6]. In the online realm, citizens can do it via more sophisticated forms like e-petitioning [7] or socially mediated protest actions with policy demands [8], or via simpler individual contributions like posing questions and complaints directly to authorities, thus bypassing media as traditional aggregators and articulators of dissent (see below) [1]. At the same time, user complaints may provide input for media agendas which, in their turn, influence decision-making.

Social media have also altered the classic agenda-setting by opening the gate for all possible motives and messages, including both verified and fictional. Unlike before, news streams are filtered not by professional communicators but by secondary and tertiary gatekeeping actors [9] including collective intelligence and algorithms based on user preferences. As a result, local news media find themselves on the periphery of viral content, consumed by rare enough people interested in having a professional filter and classic news selection compared to algorithmic feeds. Such people subscribe to groups and public pages directly to receive updates (as the newsfeed is no longer the most popular way to interact with news-like content). The role of local media, therefore, is not about giving voices to the voiceless but about providing updates on issues of current public concern. As a result, the media space of small towns is an inextricable combination of professional and amateur media, where a media that reacts more actively to the audience feedback becomes influential.

2.2   Decentering of Traditional Deliberative Actors on Social Media

Socially mediated complaints are also a peculiar object of study today. They are often analysed in the context of service science, management, and engineering to help companies receive customer feedback faster, respond to it, and improve the quality of their products and services. Researchers have suggested that 'social media teams should be given continuous and mandatory opportunities to learn to provide high-quality complaint resolutions faster' [10: 337]. Also, scholars have stated that social media is a 'relevant complaint channel', pointing out that 'more than half of the complainants chose to voice their dissatisfaction first via social networks' [11: 534].

At the same time, other scholars have pointed out to an objective process of 'decentering of journalism' in the public sphere and its substitution by audience-led public deliberation [12, 13]. Being an objective trend, decentering of journalism may still have, to their viewpoint, its substantial hazards and shortcomings, as actors legitimized by centuries of professional development (including media with their professional ethics) are moved to discursive and gatekeeping peripheries by collectives with doubtful legitimacy and no shared rules of the game, open to radicalism and irresponsibility. This clearly poses two questions which we focus upon also (but not exclusively) in this paper. First, it is the question of audiences' deliberative quality; second, it is that of the role of traditional deliberative actors, mostly media and authorities, within the new audience-centered deliberative milieus.

Among other papers (see our review in [14]), our earlier research on Twitter shows that media accounts on social networks play important roles in the discussion structure. We have identified two main roles of media and journalists' accounts, namely informing and opinion conveying. Another structural role of media accounts was linking the centers of the assessed discussions to their respective peripheries. We have shown that these functions showed up independent of national context, in all the ad-hoc discussions on conflictual events.

Unlike media accounts, political actors' online presence and their functions within discussions vary significantly in different socio-political contexts. Thus, we showed that, in Russia of the 2010s, there was an institutional vacuum on Twitter, and it differed from other contexts like Germany [15]. The patterns of public blaming and assignment of

responsibility for ethnic tensions also differed: Blame was put to the national political actors, but responsibility was expected from regional authorities, while in Germany it was vice versa [16]. All this research has been done for Twitter, and it is important to know whether media preserve their crucial roles also on other platforms like VK.com, and whether political actors are equally absent from online discussions on this social network.

2.3 Complaining in (Semi-)authoritarian States: Transgression of Dissent and Co-optative 'Gardening' of Active Audiences

Some (semi-)authoritarian regimes, the researchers have written, are quite sensitive to the complaints of their residents. For example, it is known that the Chinese state attempts to listen to the complaints of residents against representatives of local authorities, while not giving residents too much power over officials. China sees this as a guarantee of the stability of the regime [17]. The national authorities successfully utilize the co-optation strategy by executing power over local ones based on local communities' complaints, including those online [18], thus making dissent in local communities transgress to the national level but serve for regime consolidation and building trust to it. It has also been shown that, in the states with autocratic trends, comment sections 'may serve political elites for the purposes of gathering information about society, credibly increasing the transparency of government, monitoring lower-level officials or showcasing widespread regime support' [19: 15]. In several countries of the post-Soviet space, the state may easily close one or another media resource on which many critical comments are posted, but practice shows that the authorities rarely resort to this.

However, the quality of criticism in the post-Soviet countries also needs to be questioned. Thus, in the example of Belarus, Bodrunova and colleagues [20, 21] have shown that criticism towards leadership rarely implies substantial, rational, and constructive policy criticism. Complaints about particular problems and issues, thus, may fill in the gap in feedback created by absence of constructive policy-critical publics combined with excessively emotional and insubstantial criticism towards leadership in leadership-critical publics [22].

Counter-intuitively, from an elite's perspective, the benefits of critical comments outweigh the risks. How can critical comments be useful to the authorities? First, on aggregate, they represent not only the opinion of the opposition but also the voice of the entire society. Second, changes in online opinions can be tracked in real time. Third, comments are saved, so changes can always be tracked backward over time. Fourth, voicing criticism in comments may work for 'letting the steam off the system' as an alternative to street protests. In general, 'critically commenting publics can thus be assumed to be associated not only with risks but also with benefits for authoritarian leaders' [23: 489–491].

Nevertheless, much depends on the specific national context. Litvinenko and Toepfl [24] have identified two main strategies for the behavior of a (semi-)autocratic regime in relation to critical user commenting on news media websites, which are repression and integration. Empirical studies have shown that, for example, Azerbaijan has for long been fully focused on the first strategy, trying to minimize audience participation in commenting on news. In turn, Belarus, before 2020, demonstrated adherence to the

integration strategy. In Belarus, 'comment sections on some leading news websites, such as, for instance, tut.by, developed into a vibrant space for citizen participation, where users could criticize – within certain boundaries – specific policies, lower-level officials, and even the authoritarian leadership as such' [24: 17–18]. This situation changed after the summer of 2020; in 2021, major news portals around the country were forced to close.

In Russia, Runet is still perceived as a space freer than traditional media in terms of expression of opinions. Until the early 2010s, it enjoyed scant regulation [25] and was an arena where alternative-agenda media and political blogging flourished [26]. Since 2014, a range of restrictive laws have been introduced that have reshaped the communicative climate of Runet [27]. Nonetheless, due to a high share of the state in both federal and regional media markets, professional news media are often perceived as state-affiliated (and thus subjected to the authorities), which prevents them from being seen as platforms suitable for complaints and criticism. In their turn, non-state-affiliated local newsgroups attract active audiences who come to them not in search of information but in search of involved counterparts for discussion.

The political system in Russia has not yet elaborated a unified strategy for public reaction to complaints, especially in risky cases of negative reactions to comments by members of local authorities. Thus, in Krasnoyarsk (Siberia), after an advisor to city government posted on Facebook his highly negative reaction to users' complaints to the wildfires of summer 2021, the local administration denounced the post as his personal, not administrative, position. Such two-faced behavior of both co-opting comfortable enough criticism and denouncing strong reactions from members of government corresponds to the 'gardening' nature of the Russian (semi-)authoritarianism [28]. This is why exploring the roles of local authorities in the discussions around user complaints may help shed light on how such strategies are used and whether they have any impact online.

Media, in their turn, also tend to respond to user complaints – either by creating publications directly based on user-generated content or by taking users as sources. In our research, we also examine media responses to user complaints and see whether media play important roles in the discussions enacted by complaints.

2.4   Previous Studies by the Authors on Social Networks in Russia

Previous research by the authors [29] shows that public communication on local politics is moving into social networks and is constantly monitored by local authorities. We have stated the controversial nature of social networking sites in deliberative terms. On one hand, before 2022, social networks were a place for relatively free expression of critical views and represented some critical publics. On the other, on social media, the emotional degree of criticism was reduced and did not spill over offline, making social networks a tool for venting dissent.

However, the degree of criticism varied throughout the country. Thus, we have detected 'three critical Russias': namely, the regions that freely criticized political decisions ('policy-critical'), regions that freely criticized political leaders ('leadership-critical'), and regions without a request for criticism ('uncritical'), which clearly corresponds to Toepfl's theory of three types of authoritarian publics [22]. Our work contributes to his theory of publics, as we have discovered the spatial (regional) dimension

in formation of critical publics. Moreover, this was true not only for the 'native Russian' social network VK.com; by 2021, Instagram had also become a source of official information for both citizens and journalists in many regions.

Another important conclusion was that Russia was extremely heterogeneous in its citizens' demand for complaint and criticism opportunities. Complaints as content are typical for large and economically active regions where there is a clash of political and economic interests, while neutrality and a demand for non-confrontational dialogue prevail in the rest of the territories.

The next stage of our study [30] has demonstrated that social media content is highly flexible in terms of combining emotions and elements of rational argumentation. When it comes to scenarios of the future, rather than to criticizing the present, social media users find themselves more involved in commenting on content, especially if it relates to their fears or false hopes.

Local news media on digital platforms are focused on the main requests of the mass audience for operational information, social navigation and orientation, mobilization, and integration, facilitating communication between the authorities and society, in-forming about the latest events and the situation with COVID-19. The COVID-related scenarios of the future clearly demonstrated the audience's orientation towards emotional rather than rational argumentation of their positions.

Investigating how Russian citizens in the regions expressed their imagined scenarios for the possible future development of the pandemic on social networks, we came to several important conclusions. In particular, we have seen that social media were primarily used for sharing emotions but not information on current events. The key emotions were fear and hope. Complaints formed the basis of many scenarios of future that came into our field of vision. We have come to the conclusion that the complaints expressed on social networks have high potential for provoking and whipping up the corresponding emotions. These emotions, in turn, engage the audience in the discussion.

2.5   Research Questions and Hypotheses

As our study is exploratory, we have posed research questions and hypotheses that can be answered in a mixed-method way. They include the following:

RQ1. How is the discourse of complaints shaped on social networks?
H1.1. Comment conglomerates do not form deliberative communities in most cases. The dominant pattern of commenting is cumulative (represented by conglomerates of non-interlinked comments), not deliberative.
H1.2. The deliberative pattern of discussing is lost with the growth of the number of commenters and comments in the discussions.
H1.3. The type of media (legacy media vs. newsgroups) affects the discussion structure; media accounts differ from newsgroups in how the discussion is shaped.
RQ2. What is the role of media and political accounts in the discussions around complaints?
H2.1. Presence of media and political accounts in the accounts with cumulative commenting differs from that in the accounts with deliberative commenting. It also differs depending on the media type (legacy media vs. newsgroups).

H2.2. In the accounts with deliberative commenting, the role of media and political accounts as commenters is the key one, while, in the cumulative ones, it does not shape the dialogue.

H2.3. The experts' views and the results of social network analysis do not correspond to each other in assessment of the roles which professional media play in the discourse of complaining.

RQ3. How is the institutional response to complaints organized? In case if the media and authorities do not participate much in online discussions, do they respond to user complaints in other ways?

3   Methods and Sampling

3.1   Sample: Selection of Accounts

VKontakte (nowadays shortened to VK.com) is the most popular social network in Russia, whose multi-channel monthly audience fluctuated around 40 mln in 2022–2021 [31]. VK.com is widely used in Russia, with its' role after February 2022 increasing rapidly and significantly. Moreover, it is VK.com that has been the digital home for many hybrid local media [29], as well as for local discussion groups and newsgroups [3]. That is why this social network is the primary one for discussing the role of local news media and social networks in how the culture of complaining becomes a part of the deliberative culture in Russia.

Instagram 'has significantly transformed over the past few years and begun to play a noticeably larger role in the formation of online publics', including in Russia [32: 2]. In the recent years, local Russian authorities have become interested in the use of this social network, so Instagram, for some time before 2022, became a source of official information for both citizens and journalists in many regions. This conclusion was valid until March 2022 when the social network was officially banned in Russia.

To assess the discourse of complaining, we have used the following sampling strategy. There were two datasets of comments from selected accounts, the preliminary one and the main one. First, we have monitored both social networks to define which platform – VK.com or Instagram – hosted the most popular local newsgroups in each region, as platform preference has formed non-systemically region by region. Second, we have chosen 30 most user-engaging media-like accounts, either on VK or on Instagram, in 10 Russian regions (that is, three accounts per region). In each region, with the help of an analytical instrument called Popsters, we have randomly selected and downloaded 90 user posts with complaints (30 posts per account), as of November 2020 and February 2021. We have chosen these months to avoid data distortion caused by public holidays. We have collected the comments for qualitative assessment, which included monitoring the responses to complaints in the comments to them, and also the institutional response to complaints by media and authorities beyond the social networking platforms.

Third, we also conducted in-depth interviews with three experts per region (30 experts altogether). For the interviews, the response rate was unexpectedly low (~20%). The questions posed discussed the types of accounts people prefer for lodging complaints, topicality of complaints, efficiency of government response, and roles of media in public

response to citizens' complaints. The interviews, i.a., served for our decision to widen the list of regions and accounts for the main part of our study; as a result, we have enlarged the dataset more than two-fold. The interviews have also provided reasons to exclude Instagram from our final dataset for social network analysis of the discussions on complaints, as VK.com has shown to be significantly more salient contextually.

Fourth, at the final stage, when the main sample was formed, we have picked 63 accounts of media-like pages (accounts of traditional media and VK-based newsgroups) in 21 regions within the same periods. We have applied web crawling for gathering comments and metadata; the crawler had been previously developed by our working group [14, 33].

However, after the crawling stage less than 63 datasets were created. This was due to two factors: First, the crawler failed at several accounts; and second, some accounts returned a very small number of comments. We have additionally filtered out the accounts with the number of comments smaller than 25; this has left us with 42 accounts where the number of comments ranged from 40 to 1,726. For these accounts, we have reconstructed the web graphs with the algorithms of the Gephi library and assessed the graph centralities.

The accounts that were selected for the final dataset were of two types. The first group consisted of accounts of media of more traditional stance, like local newspapers, and the second type comprised newsgroups or accounts similar to 'overheard_[city]' (that grew out of humorous communities on what was overheard on public transport or local restaurants) and 'typical [city]' which described local events and small anecdotes.

3.2 Data Analysis

At the first stage of our research, we have qualitatively assessed the presence of complaints in posts and comments, monitored official reactions, and juxtaposed the experts' evaluations with the results of the analysis of complaints' content.

At the main stage, we have reconstructed the web graphs for each account and assessed the graph centralities, in particular the betweenness centrality and the PageRank centrality. Then, we have tried to find the media and political accounts among the commenting users and assess whether they played any important role within discussions. Then, we have applied correlational analysis, to see whether the discussion structure depends upon the number of users in it and the type of media (conventional/newsgroups). We see the discussion structure as either deliberative (a highly connected graph of an intense enough discussion) or cumulative, where the comments are individual and addressed to authors of the posts, not to fellow commenters; they accumulate in time but do not form a deliberative pattern of discussing.

To find connections between the type of media accounts (media/non-media), the structure of the graphs (deliberative/cumulative), the number of users and comments as potential third factors that shape the discussion structure, and the role of media and political accounts in the discussions, Spearman's rho correlations and the Mann-Whitney U tests were applied.

Due to the structure of data and the fact that access to Instagram was blocked in Russia in February 2022, our analysis was partly reshaped. This is why the stages of research do not always correspond to the logic of RQs and hypotheses. In the Results section, we will describe the outcomes of our analysis by hypotheses, not by the steps

we have taken, first using the main dataset and then the preliminary dataset and expert interviews.

4   Results

RQ1. How Is the Discourse of Complaints Shaped on Social Networks?

H1.1. *Comment conglomerates do not form deliberative communities in most cases. The dominant pattern of commenting is cumulative (represented by conglomerates of non-interlinked comments), not deliberative.*
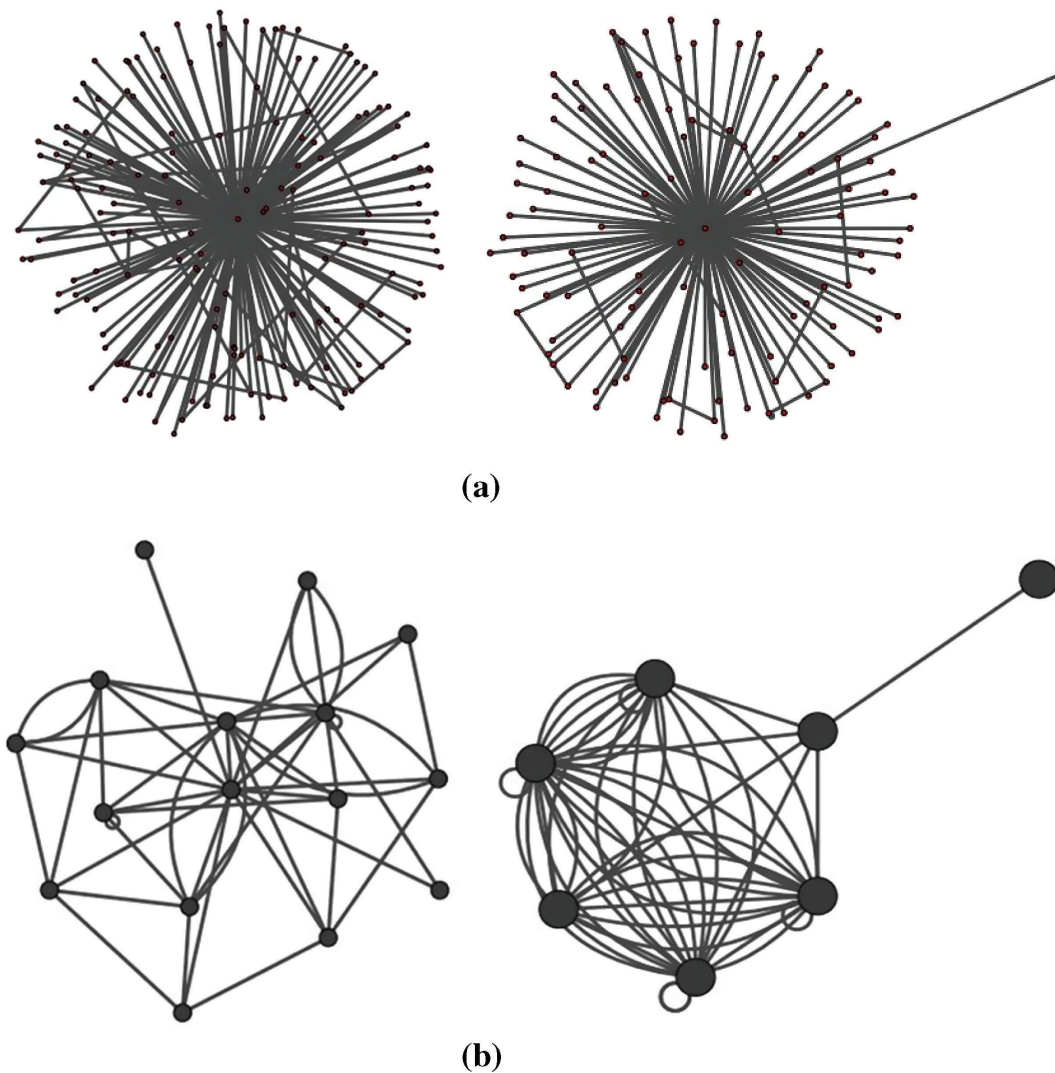

(a)

(b)

Fig. 1. (a) The discussion structure of cumulative (ego-network) type: Examples of web graphs for public pages 'ACT-54', Novosibirsk (vk.com/act54), and 'Yantarny DLB. Kaliningrad' (vk.com/amberbolt), left to right. (b) The discussion structure of deliberative type: Examples of web graphs for the public page 'Tupodar', Krasnodar (vk.com/typodar) and the media 'Belomorkanal', Arkhangelsk/Severodvinsk (vk.com/belomorchannel_tv29), left to right

This hypothesis was tested on the main dataset. We have, indeed, discovered two clearly different patterns of the discussion around complaints, which are represented via the web graph reconstruction in Fig. 1 (a, b).

As clearly seen from Fig. 1 (a, b), the first type of discourse is cumulative. The graph represents a final picture for each discussion where the users (nodes) comment on another account that has published the complaint. If stretched in time, the discourse looks like individual non-linked comments left by users and not discussed by other users. The resulting opinion is formed by accumulation of similar responses. The second type of discourse, on the contrary, is created by smaller numbers of users but is highly interconnected by reciprocal commenting. We observed 29 cumulative discussions and 14 deliberative.

To support our visual assessment of graphs with quantitative assessment, we have introduced two simple metrics for graph assessment:

- *Betweenness centrality ratio.* Betweenness centrality tells whether a particular node links other nodes in the graph. We have calculated mean betweenness centralities for the graphs, the main node excluded (the media that posted the complaint), thus assessing only the commenter nodes. Then, we have divided it by the number of users, to calculate the average betweenness centrality per node for each graph. The higher the ratio, the closer the pattern of a given graph is to the deliberative one.
- *PageRank centrality ratio.* PageRank centrality tells whether a given node is commented by other authoritative nodes in a discussion. We have calculated mean PageRank centrality for the graphs. Then, we divided the mean commenters' centrality by the main node's centrality, to see how big the difference is between the main node and the rest of users in the discussion. The lower the ratio, the closer the pattern of a given graph is to the deliberative one.

These mean centralities describe the graph in terms of deliberative/cumulative patterns. On Fig. 2 (a, b) we show that visual assessment of the graphs corresponds with the ratios, with only one exception in each case.

The Spearman correlations between visual assessment (coded as 1/2 as 'deliberative'/'cumulative') and the ratios were also strong (0.774** and 0.778** for the betweenness and PageRank centralities, respectively). This is why we see these ratio metrics as well-describing the deliberative vs. cumulative graph structure.

According to both the visual assessment and the combination of ratios, in our data, only 12 discussions of 42 demonstrated the deliberative pattern of discussing. This confirms H1.1 but not completely, as circa 28.5% of discussions still were of the deliberative type. This shows that VK.com as a platform can be a place for involving discussions around complaints, but not yet is for the majority of local media/newsgroups.

H1.2. *The deliberative pattern of discussing is lost with the growth of the number of commenters and comments in the discussions.*

To test H1.2, we have used the ratios calculated for H1.1. Then we have calculated Spearman correlations between the visual assessment ('type of graph') variable and the number of users, as well as Pearson correlations between the two ratio metrics, on one hand, and the number of users, on the other.
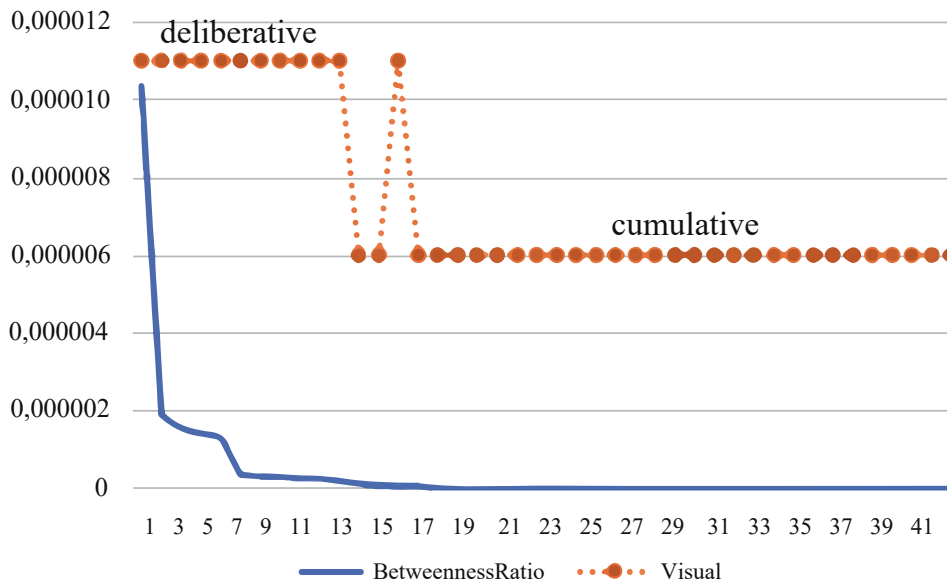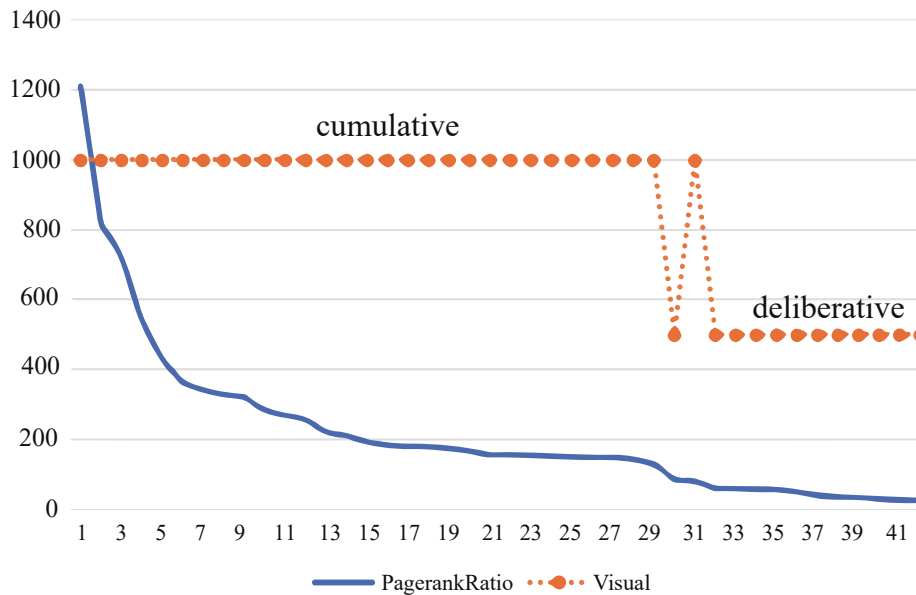
Fig. 2. (a) Betweenness centrality ratio vs. visual assessment of the accounts' web graphs. (b) PageRank centrality ratio vs. visual assessment of the accounts' web graphs

All the three variables have shown strong interdependence between the number of users in a discussion and the graph structure. The PageRank ratio has understandably shown higher correlation with the number of users than the visual assessment and betweenness ones (0.977^{**} vs. 0.774^{**} and 0.795^{**}, respectively). However, as all the metrics have shown strong correlations, we can conclude that the number of users casts an impact upon the discussion pattern, and, with the growth of the number of participants, the deliberative pattern is lost. In our sample, the number of users in the deliberative discussions ranged from 40 to 125, and that in the cumulative discussions, from 173 to 1726, with just one exception of 115 users.

The same goes for the number of comments. The visually assigned type of graph and the two ratios show strong correlations with the number of comments (0.778**, 0.795**, and 0.977**, respectively). However, as the number of users strongly correlates with the number of comments (0.965**), assessing the number of comments does not add a lot to what we already know and does not allow for separate assessment of the role of comments with regard to the graph type. Thus, we have calculated the comment-per-user ratio for each graph. Here, correlations are much weaker: The visual graph type has no correlation to the comments-per-user ratio, while the two graph-based ratios weakly correlate with the latter (0.314** and 0.452**, respectively). This means that, even if users get engaged in commenting and leave multiple comments, they do not do it to the extent that it may influence the nature of discussions to make them more deliberative and interconnected.

This may be true for VK.com due to the fact that, in our sample, the number of comments per user is, in general, very low, which clearly tells of the cumulative character of commenting when users just 'drop' a comment or two and leave. As comment ratio does not correlate with the graph type, it means that this pattern is true for both 'deliberative' and 'cumulative' discussions. The average number of comments per user varies from 1.006 to 1.417, with just one exception of 2.137.

Thus, H1.2 is confirmed for the number of commenters and their respective comments, in case when the number of comments per user is low. When cumulative patterns of discussing are predominant, they get worse with the growth of the number of commenters and comments. On one hand, this goes against the pluralist view on the necessity of involvement of more people into discussing social issues and poses a range of questions on whether we as society need the discussions to be large, rather than small and focused. On the other hand, we clearly see that, even when the graphs demonstrate the deliberative character of the discussion, it must mostly depend on a small number of users, while the majority would only leave sporadic single comments.

H1.3. *The type of media affects the discussion structure; media accounts differ from newsgroups in how the discussion is shaped.*

We have divided the newsgroups where the complaints were posted into two groups: 1) the accounts of more traditional (often registered) media, like local newspapers, radio and TV channels, or web 1.0 news portals, and 2) the VK.com-based newsgroups, often of humorous stance.

Unlike the number of participants, the type of media in our data does not affect the graph type. The Spearman correlations between the 'type of media' variable and the variables that describe the graph structure (the 'visual assessment' one and the two ratios developed in H1.1) are all insignificant. We have also tested the potential difference between media and non-media accounts via Matt-Whitney U test, and it did not return any confirmed differences that would depend on media type – neither in the number of users nor any component of graph structure, including general betweenness and PageRank centralities, the centralities with the main node excluded, the centralities of main nodes, nor the two ratios suggested above.

This rejects H1.3, which, in its turn, supports the 'media decentering' thesis, as, in deliberative terms, conventional media do not produce or organize discussions of more

deliberative nature than the web 2.0 newsgroups which are often far from any proper understanding of news production.

RQ2. What Is the Role of Media and Political Accounts in the Discussions around Complaints?

To address this research question with its three hypotheses, we have manually assessed the usernames within the collected data in each graph. First, we paid attention to the 10% of users with the highest PageRank and betweenness positions. Second, we had to assess the user lists on the whole, randomly checking manually the accounts which, as we would suspect, could belong to media, individual journalists, authorities, or their representatives. Thus, all the accounts were checked for usernames, and no less than 20% of them were also cross-checked on VK.com.

However, we have not found any single account that would recognizably belong to media, journalists, authorities as institutions, or civil servants. What we have discovered was a complete institutional and representative vacuum, even bigger than we had discovered for Twitter in 2017 [15].

Thus, we H2.1 and H2.2 cannot be answered directly. The answer for these hypotheses on dependence of media and authorities' roles on the deliberative/cumulative commenting or media type is that, for any type of discussion, institutions do not shape them to any extent, as they are absent from the discussions, and even the media accounts that post complaints do not participate in discussing them in their own accounts.

For H2.3, we have asked the experts on the roles of media in organizing the complaint – response mechanism. The experts have partly confirmed that media are decentered and are more and more excluded from the complaint resolution mechanism. Instead, the experts underlined the growing role of systematic complaint management activities recently established within the Regional Management Centers (TSURs) of regional governments. These activities have been automatized via a system of automated complaint collection from social networks and web 1.0 portals; this system is called 'Incident Management' and is seen as key to resolving complaints. However, 50% percent of the experts stated that independent, socially-mediated news accounts were the main space where users complained, while authorities' accounts were named by 28.9%, and conventional media by only 15.7%.

Thus, the role of media as organizers of discussions around complaints is limited to their 'spatial' dimension, to their role of a forum for complaints. H2.3 is confirmed for newsgroups in terms of their role as spaces for venting users' emotions via complaining, but not for media or media-like accounts as actors that help shape meaningful discussion upon these complaints. Our conclusion may contribute to the concept of journalism decentering in terms of media roles on social networks: One of the media functions, namely the 'spatial' one, still works, but other ones, including organization of public discussion, are not performed within the networked discussions.

RQ3. How is the Institutional Response to Complaints Organized Instead?

To answer this question, we have used the data from the first stage of our research, where we employed a smaller number of accounts but also looked at Instagram, as well as asked experts on the complaint – response chains.

What we monitored on this stage was not only the institutional response on social media but also their external response. By the latter, we mean publication of responses to complaints on governmental websites and media publications (mostly news).

We have discovered that the complaints *are* responded to in the public sphere beyond networked discussions (see Fig. 3). The discovered percentage of complaints addressed varies highly by region, and there are no macro-regional patterns for how intensely the public sphere actors respond. Thus, regional variances demand further research on factors of (non-)answering.
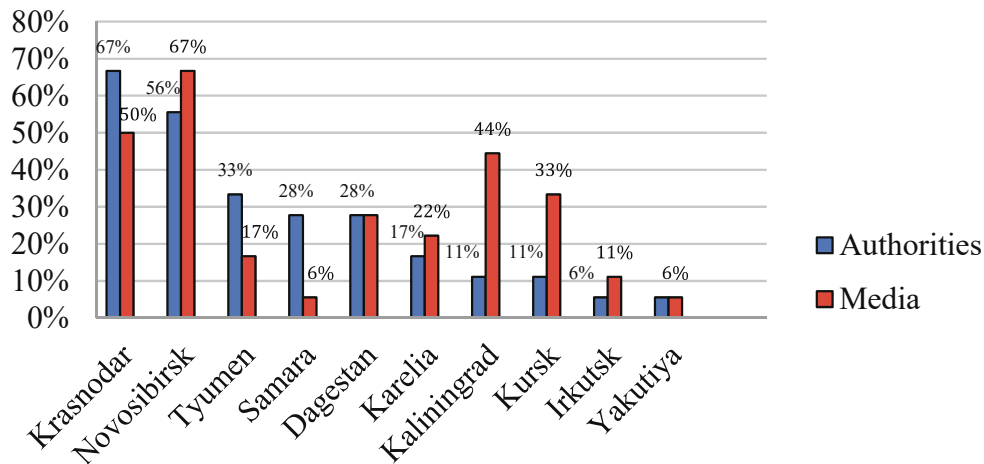

Fig. 3. The percentage of responses by the authorities and media, by region

Our main conclusion for RQ3 is that the institutional actors of the regional public spheres use their conventional instruments of response to complaints. Instead of engaging into open discussions on social networks, the authorities report on the resolved complaints on their websites, while media pick up complaints as a source for their agendas and respond via publishing news, thus returning to the practice of collecting public problems via social media. However, in the socially-mediated public spheres, it turns the chain of 'public dissent – media alert – governmental response' into a fork-like scheme where media and authorities pick up the complaints simultaneously (or, in some cases, authorities may even outperform media in terms of speed and completeness of response). This, again, adds much to decentering media in the public space, while also diminishing the opportunities for local communities to participate in substantial discussions on the issues raised. The complaints communication appears to be one-way again, even if this way is not 'authorities to people' but 'people to authorities.' The feedback loop from the public sphere in response to complaints is there, but is not involving.

5   Discussion and Conclusion

In Russia, as in the rest of the world, the role and tasks of traditional media are changing. Not only they are increasingly fading into the background and pushed aside by new media platforms such as social networks, but they are also being transformed by the influence of social networks. Local news accounts cease to be information suppliers only; given

the peculiarities of the Russian political and information environment, nor can they become a representation of the political will of the regional community. Ac-quiring the technical qualities of new media, they instead become a place of concentration of the negative emotions of citizens, of their complaints and discontent. In some sense, city news accounts on social media have become a 'place' where residents of small towns feel 'at home' sharing their emotions and cheering each other up – that is, a 'domesticated' part of the public sphere. On one hand, however seemingly small, this function of hyperlocal news accounts cannot be overestimated, as they have created an arena for bottom-up policy criticism that is truly rarely found in post-Soviet regimes.

We have discovered that the practice of user complaints via local news accounts on social networks has become widespread in Russia, and the local authorities and media do pay attention to relatively small-size complaints by individual Internet users. This practice is still new, and the reaction by neither media nor civil servants shows stable patterns in terms of volume of attention and efficiency of complaints. In any case, for Russia, we see how Internet platforms have become home to an emergent practice of direct, de-mediatized, and network-facilitated public accountability.

On the other hand, local authorities, more than professional journalists, help ensure that discontent begins and ends in the space of social networks, without going beyond it. A response to a complaint beyond the socially-networked discussion itself may become a substitute for solving the problem in reality, or at least serves as a way to end the discussion on a given complaint by answering outside its place of initial appearance.

We have shown how the practices of institutional reaction to complaints decenter local media, putting them into competition for decision-making agendas with the authorities who use the 'Incident Management' monitoring system and are sometimes quicker to respond. The absence of media in the VK.com discussions on complaints leaves them with the only function of space provision for venting discontent and dissent, but prevents media from performing the functions of discussion organizers and watchdogs. New types of media-like accounts successfully compete with traditional editorial offices in popularity as complaint spaces, but neither they help involve institutional actors into two-way discussions on local problems.

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