CHAPTER 10

Social media and protest participation: Evidence from Russia

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Social media is playing an increasingly important role in our lives. The political consequences of the advent of social media are now a hotly contested topic (Zhuravskaya et al. 2020). An optimistic view has been that social media would empower ordinary citizens and serve as a 'liberation technology' (Diamond and Plattner 2010) that would lead to faster democratisation in authoritarian countries (Shirky 2008) and make politicians more accountable (Besley and Prat 2006). Evidence of the effect of the spread of mobile phones in Africa seems to support the idea that new communication technologies can help mass political mobilisation (Manacorda and Tesei 2020). A more pessimistic view has been that autocratic governments would adjust and learn how to exploit social media to their own advantage, employing a combination of tools including online censorship, surveillance, and heavy use of online bots and trolls (Morozov 2011, Roberts 2018). In democracies, social media is now often blamed for the exacerbated political polarisation, the spread of xenophobic ideas, the proliferation of fake news and general negative effects on users' wellbeing (Tufekci 2018, Allcott et al. 2020, Braghieri et al. 2022).

There is plentiful evidence that traditional media (newspapers, radio, TV) have had an important impact on political outcomes by providing political news and entertainment (DellaVigna and La Ferrara 2015, Enikolopov and Petrova 2015). In many respects, online media resemble traditional media and one should expect their persuasion effects to mirror those of traditional media. However, certain features of new media – of social media, in particular – are distinct. The two most important distinguishing features of new social media are low barriers to entry and reliance on user-generated content. Low entry barriers make gatekeeping the spread of political information much less effective, allowing new entrants who were previously sidelined by the political establishment. By providing an outlet for the opposition and for whistleblowers, social media makes it harder for political and business actors to hide potentially harmful information, increasing their accountability (Besley and Prat 2006). Low entry barriers can also have social costs. For example, social media can be used to spread extremist ideas, increasing their reach and potentially their influence. Low barriers to entry could also undermine the reputation mechanisms that serve to guard the quality of information of traditional media outlets (Gentzkow and Shapiro 2006, Cagé 2020) and lead to the spread of misinformation and fake news. Low barriers to entry also vastly increase the choice of news sources and,

arguably, allow users to tailor their news sources to their pre-existing preferences more finely than traditional media allow; this potentially could give rise to 'echo chambers' and lead to increased political polarisation.

By allowing horizontal flows of information through two-way communication between users, social media facilitates coordination between people, thus potentially making it easier to organise collective actions such as street protests. At the same time, online protest activity in social media could crowd out offline actions necessary for real political change in autocracies (Gladwell 2010). User-generated content and two-way communication in social media could also change the way politicians and citizens interact (Bessone et al. 2022). Social media allows politicians to receive immediate feedback on policy actions, discuss policy proposals and measure political discontent. Such feedback could be used for policy improvements, but it could also be used for oppression and political surveillance. In addition, the low cost of creating automated accounts and the ability to post content using anonymous or impersonated accounts enable the manipulation of online content seen by real users, potentially leading to political persuasion. Also, the data that online platforms collect about their users could be (and have been) used to target specific groups of users to make such manipulations more effective.

The combination of low barriers to entry and horizontal flows of information could make social media especially important in facilitating street protests. Low barriers to entry in social media make it easier to spread information critical of the government, which is especially important in autocratic regimes where traditional media is under a tight control by the government. This increases the number of informed citizens who are unhappy with their government and thus potentially ready to take part in political protests. Furthermore, horizontal flows of information between users of social media allow them to exchange logistical information about the upcoming events and coordinate their tactics on the spot. This helps solve collective-action problems and increases the probability that protests actually take place by increasing the probability that people who are potentially ready to participate in political protests actually do participate.

In our paper (Enikolopov et al. 2020),[1] we provide causal estimates of the political effects of social media in a non-democratic environment, focusing on the effect on participation in political protests. Testing empirically the effect of social media on political protests is methodologically challenging because social media usage is endogenous to individual and community characteristics. In addition, protests are typically concentrated in one or a few primary locations, as was the case for Tahrir Square in Egypt or Maidan in Ukraine. Hence, geographic variation in protests is often very limited. Temporal variation in protest intensity can provide evidence on the association between the activity and the content on social media and subsequent protests (Acemoglu et al. 2017), but not on the causal impact of social media availability.

1 The results of which hold after correcting for the mistakes in two control variables (Enikolopov et al. 2023).

To understand whether social media can indeed promote protest participation, we study an unexpected wave of political protests in Russia in December 2011 triggered by electoral fraud in parliamentary elections, coupled with an analysis of the effect of social media on support for the government. Our empirical setting allows us to overcome the limitations of previous studies for two reasons. First, there was substantial geographic and temporal variation in both protest activities and the penetration of the major online social networks across Russian cities. For example, among the 625 cities in our sample, 133 witnessed at least one protest demonstration on 10–11 December 2011, the first weekend after the elections. Second, particularities of the development of VKontakte (VK), the most popular social network in Russia, allow us to exploit quasi-random variation in the penetration of this platform across cities and ultimately identify the causal effect of social media penetration on political protests.

Our identification is based on the information about the early stages of VK's development. VK was created in 2006 by Pavel Durov, a student at Saint Petersburg State University (SPbSU). This online social network, analogous to Facebook in functionality and design, was the first mover in the Russian market and secured its dominant position with a user share of over 90% by 2011. Initially, users could only join the platform by invitation through a student forum of the university, which was also created by Durov. As a result, the vast majority of early users of VK were Durov's fellow students at SPbSU. This, in turn, made friends and relatives of these students more likely to open an account early on. Since SPbSU attracted students from across the country, this sped up the propagation of VK in the cities these students had come from. Network externalities magnified these effects and, as a result, the distribution of the home cities of Durov's classmates had a long-lasting effect on VK penetration.

We exploit this feature of VK development in our empirical analysis by using the origin of students who studied at SPbSU in the same five-year cohort as the VK founder as an instrument for VK penetration in the summer of 2011, controlling for the origin of the students who studied at SPbSU several years earlier and later. Thus, our identification is based on the assumption that temporal fluctuations in the number of students coming to SPbSU from different Russian cities were not related to unobserved city characteristics correlated with political outcomes. In the first-stage regression, we find that the distribution of the home cities of the students who studied at SPbSU at the same time as Durov predicts the penetration of VK across cities in 2011, whereas the distribution of the home cities of the students who studied at SPbSU several years earlier or later does not (see Figure 1).

Using this instrument, we estimate the causal impact of VK penetration on the incidence of protests and protest participation. In the reduced-form analysis, we show that fluctuations in the student flow from Russian cities to SPbSU over time predict the incidence of protests in December 2011 (Figure 2) and the number of protest participants. The corresponding IV estimates indicate that the magnitude of the effect is sizable: a 10% increase in the number of VK users in a city led to both a 4.6 percentage point increase

in the probability of there being a protest and a 19% increase in the number of protest participants the first weekend after the elections. Non-parametrically, we document that there exists a threshold of VK penetration below which there is no relation between VK penetration and protests (see Figure 3).

FIGURE 1 VK PENETRATION IN 2011 AND SPBSU STUDENT COHORTS

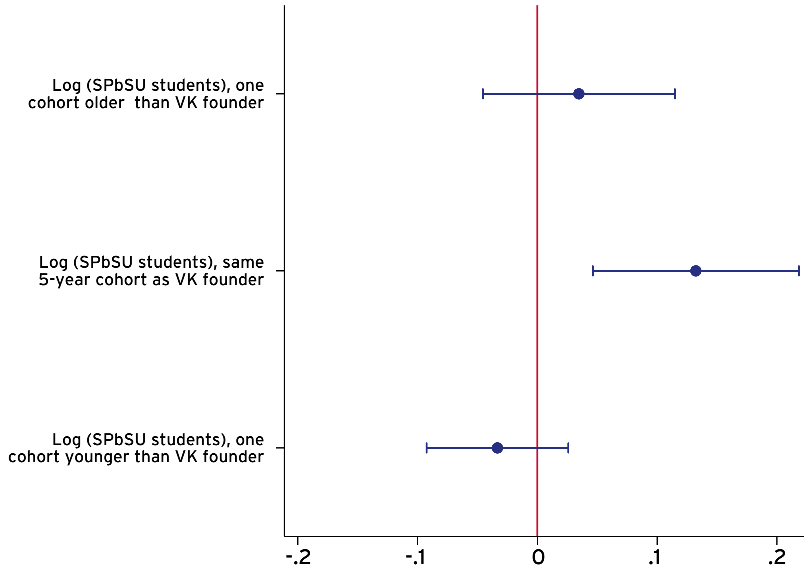


FIGURE 2 INCIDENCE OF PROTESTS IN 2011 AND SPBSU STUDENT COHORTS

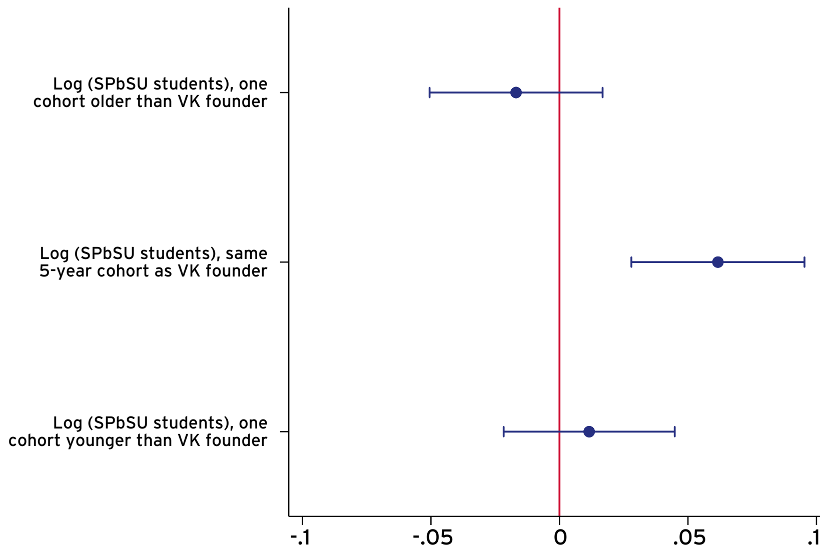
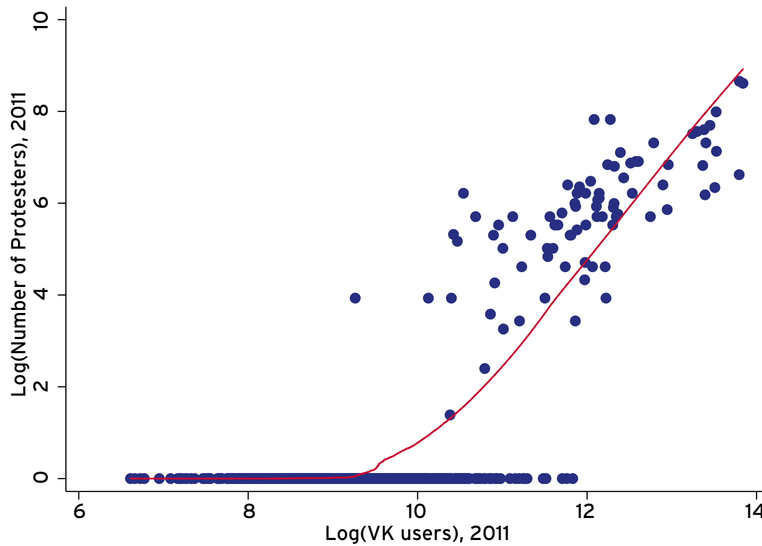


FIGURE 3 NONPARAMETRIC RELATIONSHIP BETWEEN VK PENETRATION AND NUMBER OF PROTESTERS



As a falsification test, we show that VK penetration in 2011 does not predict protest participation in the same cities before the creation of VK using three different protest instances: anti-government protests at the end of the Soviet Union (1987–1992), labour protests in 1997–2002, and social protests in 2005. We also show that VK penetration in 2011 was not related to voting outcomes before the creation of VK. We also replicate our first-stage regressions using the information on the cities of origin of the students who studied in more than 60 other major Russian universities. We find that the coefficient for our instrument – VK founder's cohort at SPbSU – lies at the top end of the distribution of the corresponding coefficients in other universities, while the coefficients for younger and older cohorts lie close to the medians of the corresponding distributions, consistent with our identifying assumptions.

We highlight two channels through which social media could lead to protest participation in a non-democracy. On the one hand, low barriers to entry make it much more difficult for the regime to limit the spread of potentially harmful information that would lead to more anti-government sentiments in the population. We call this the *information channel*. On the other hand, the fact that social media relies on user-generated content facilitates horizontal information flows, which could lower the costs of coordination and thus alleviate the collective action problem (Ostrom 1990). We call this the *coordination channel*. If this channel is at work, the chances that people take out to the streets could go up even if the number of individuals in opposition does not increase. In our context, VK was used heavily for tactical coordination of protests in Russia in 2011-2012. For instance, for almost every city with a protest, activists created VK protest communities, where people could exchange the logistical details.

We find no evidence that supports the information channel being at work in our context. In particular, we study VK's impact on the pro-government vote and attitudes toward the regime. We show that, consistently across all elections after the creation of the social network, VK led, if anything, to a higher, not lower, pro-government vote. We also do not find any evidence for increased political polarisation since there was no jump in negative attitudes toward the regime or in the opposition vote. Finally, we analyse the political content on VK and find that, on average, it was neutral or positive towards the government.

However, we do find evidence in favour of coordination. We find that the number of VK users in online protest communities was positively associated with the incidence and the size of the protests. We also find that the impact of social media on protests was stronger in larger cities, where logistical coordination tends to be more critical. Finally, we show that protests tend to be smaller in cities where, conditional on the total number of social media users, the user base was more fractionalized between Facebook and VK. A more divided user base matters because it may lead to less horizontal information flows between users of different social networks and, as a result, more difficult logistical coordination. These findings may also be consistent with the importance of peer pressure and social image, and we explore this hypothesis further in a companion project (Enikolopov et al. 2022).

Overall, our paper provides evidence that social media penetration had a causal effect on both the incidence and the size of the protest demonstrations in Russia in December 2011. Additional evidence suggests that social media affects protest activity by reducing the costs of collective action, rather than by spreading information critical of the government or by increasing political polarisation. Thus, our results imply that social media induces coordination and alleviates the collective action problem.

While our results confirm the earlier claims of the digital optimists, we note that these results may not generalise to other settings. The Russian protests of 2011 were unexpected, and the government did not have time to prepare for them. If a government is aware of this effect of social media on political protests, it may counteract it by censoring online content related to collective action (King et al. 2014, Ananyev et al. 2019) or manipulating the information in social media (King et al. 2017). Furthermore, the reduction in coordination costs can also have its dark sides, for example by possibly leading to more extremism and hate crimes (Bursztyn et al. 2019). More research is needed to understand whether similar results hold for other outcomes and in different contexts.

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