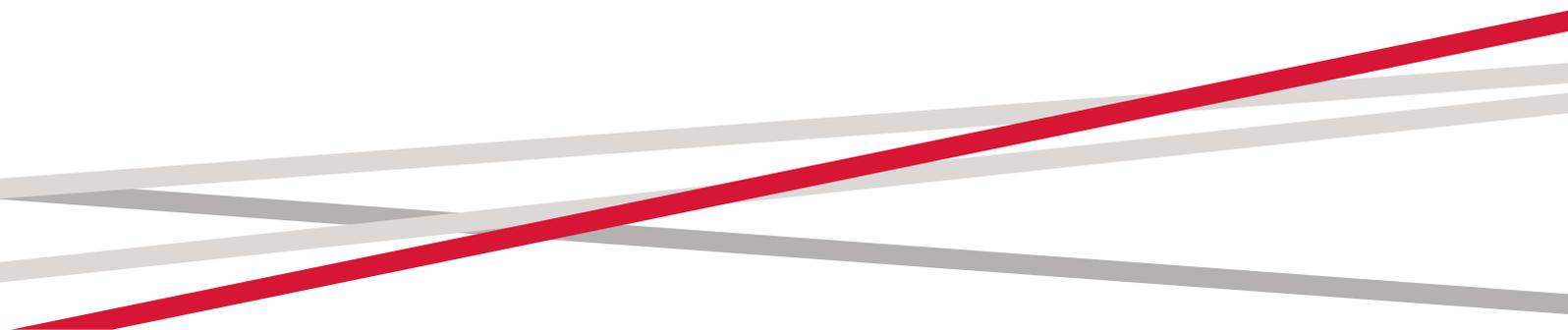


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Political Implications of the Rise of Mobile Broadband Internet

In the last ten years, the world has experienced the dramatic rise of mobile broadband internet brought by third-generation (3G) and fourth-generation (4G) mobile networks. This has resulted in major political changes – reduced confidence in governments around the world, lower voting shares of incumbent political parties, and the rise of populists. The empirical evidence is consistent with both the optimistic view of 3G internet (the “Liberation Technology”) and the pessimistic one (the “Disinformation Technology”). 3G internet helps to expose actual corruption; however, it also contributes to electoral successes of populist opposition.



The spectacular rise of 3G

Communication technologies have undergone a dramatic change in the last 10-15 years. According to the International Telecommunications Union (ITU), there were only 4 active mobile broadband subscriptions per hundred people in the world in 2007, while this number reached 75 per hundred in 2020. The growth of mobile broadband internet – provided by the third and fourth generation of mobile networks (3G and 4G, respectively) – was the main driver of growth in broadband access. The number of fixed broadband subscriptions per hundred people has only increased from 5 to 15 percent in the same period of time.

Relative to the previous generations of mobile technology, 3G provides a qualitatively different way of using the internet. First, it is broadband access on the go, available wherever the user is rather than at a fixed point at home or in the office. Second, it allows for downloading and uploading photos and videos. Before 3G, mobile technology only allowed exchanging text messages along with limited and slow access to the web. Third, it is the technology that is best suited for social media. While social networks started before 3G and were initially accessed on fixed broadband, today most Facebook, Twitter and YouTube users are mobile.

Liberation Technology or Disinformation Technology?

What are the political implications of the spread of this new technology around the world? Initially, political scientists were excited about the internet as a “Liberation Technology”, especially after it played an important role in the Arab Spring. Internet - and in particular mobile internet – helped pro-democracy activists in autocratic states to disseminate critical information about the government, expose corruption, and coordinate protests.

Later on, however, it became clear that social media also provided a platform for the

dissemination of false news and hate speech – thus supporting the rise of populists. This led to a rethinking of the role of mobile internet – and rechristening it into a “Disinformation Technology.”

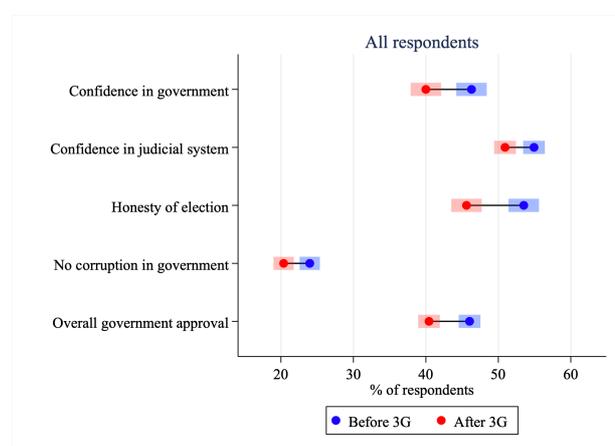
Which view, the optimistic or the pessimistic one, is correct? In Guriev et al. (2021), we study the impact of the expansion of 3G around the world on attitudes to government and electoral outcomes.

Exposing actual corruption

In order to explore the effects on confidence in government, we use data from Gallup World Poll surveys of 840,537 individuals from 2,232 subnational regions in 116 countries from 2008 to 2017. In each region and in each year we calculate the population-weighted average access to mobile broadband relying on the network coverage data from Collins Bartholomew’s Mobile Coverage Explorer.

First, we find that increased access to 3G internet causes lower confidence in government, judiciary, honesty of elections, and a lower belief that the government is not corrupt. As shown in Figure 1, the magnitudes are substantial. In our paper, we show that a decade-long 3G expansion has the same effect on government approval as a 2.2 percentage-point rise in the national unemployment rate.

Figure 1. Mobile Broadband Access and Government Approval.



Source: Guriev et al. (2021), Table 1, authors’ calculations.



This effect is only present when there is no online censorship and stronger when traditional media are not free. Furthermore, the spread of 3G makes people think that the government is corrupt when the actual corruption is high. In the cleanest countries of the world, the effect is actually positive – better access to information may help citizens to understand that other countries are much more corrupt relative to their own.

This positive impact is, however, limited to about 10% of the world’s countries. On average, the effect of 3G on the perception that government is clean is negative (see Figure 1). There are two potential explanations. First, as suggested by Gurriv (2018), before the arrival of the fast internet, the elites controlled the media and, as a result, the public was not fully aware of the elites’ corruption. 3G helped to expose this corruption and corrected the pre-3G positive bias. The second explanation is related to the negative bias of social media where critical messages spread faster and deeper (see the references in Guriev et al. 2021).

Another potential explanation is that social media promote overall negative and pessimistic attitudes. We show that this conjecture is not consistent with the evidence: the spread of 3G does not reduce life satisfaction or expected future life satisfaction.

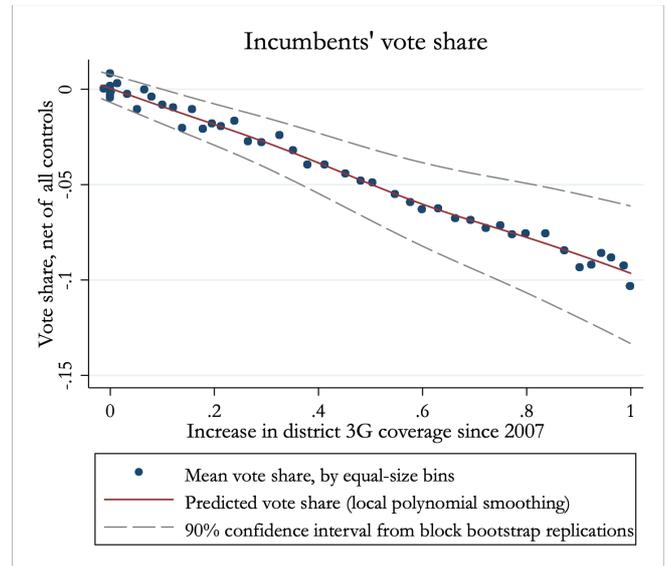
Helping European Populists

The evidence above is consistent with the view that mobile broadband internet and social media help to expose misgovernance and corruption. These findings are in line with the optimistic view of mobile broadband internet as a “Liberation Technology.” However, it turns out that the pessimistic view of “Disinformation Technology” may also be correct.

We examine the impact of 3G expansion on the outcomes of 102 parliamentary elections in 33 European democracies between 2007 and 2018. Using subnational data, we show that the spread

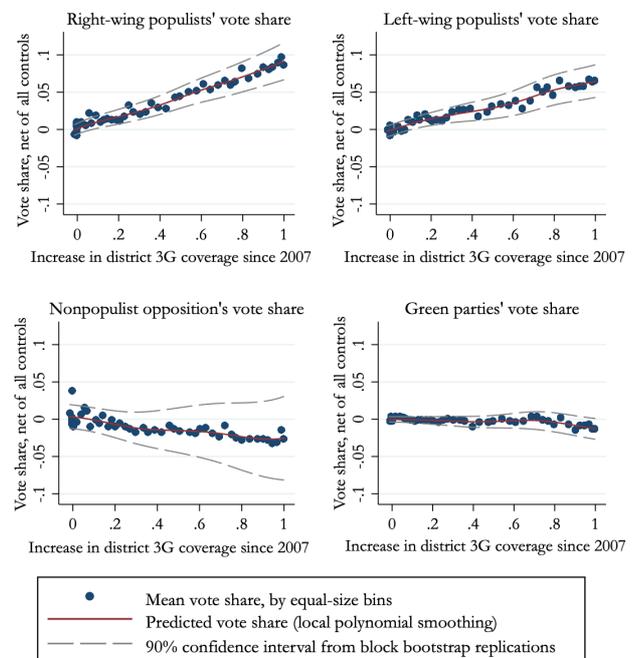
of 3G, not surprisingly, decreases the vote share of incumbents substantially (see Figure 2).

Figure 2. The impact of 3G expansion on incumbent vote share in Europe.



Source: Guriev et al. (2021), Figure VIII.

Figure 3. The impact of 3G expansion on opposition vote share in Europe.



Source: Guriev et al. (2021), Figure IX.



If incumbents lose votes, who picks them up? We show that the main beneficiaries of 3G expansion are the populist opposition parties, both on the left and right (Figure 3). The non-populist opposition does not gain.

Why do populists benefit from the spread of mobile broadband and social media? One explanation is that social media is decentralized and has no entry barriers. It is not the first time in history that populist politicians have relied on new communication technology to circumvent mainstream media controlled by the elites (e.g. the US late 19th century populists used telegraph and railroads, the Nazis in Germany used radio). It may also be the case that populist messages may be simpler, and thus, better suited for a short and catchy communication on social media. For example, another pan-European family of anti-system parties, the Greens, do not benefit from the spread of the 3G internet at all (see Figure 3): their narrative is more complex, asking voters to take responsibility for the planet.

Fact-Checking Alternative Facts

Many populist politicians point to actual corruption of the incumbent elites, but some also spread false narratives or “alternative facts.” (It was Donald Trump’s Counselor Kellyanne who, in January 2017, when asked to comment on false statements by Trump’s Press-Secretary about his inauguration, famously said that these were not falsehoods but “alternative facts.”) What can be done to stop the dissemination of these falsehoods on social media? Can fact-checking by mainstream media and independent organizations help?

In two studies, Barrera et al. (2020) and Henry et al. (2021), we carry out two randomized online experiments to identify the causal effects of alternative facts spread by populist politicians and their fact-checking. The findings are as follows: (i) alternative facts are highly persuasive; (ii) fact-checking helps to correct factual beliefs – but do not change voting intentions; even though the voters understand that the populists misrepresent the facts, they still support their agenda; (iii) fact-

checking, however, substantially reduces sharing of alternative facts on social media; (iv) the impact of fact-checking on sharing is equally strong regardless of whether the users are forced to view the fact-checking information or are simply given an option to click on a fact-checking link; (v) asking users to re-confirm their intention to share alternative facts with an additional click greatly reduces sharing.

Our results suggest that fact-checking may not be as effective as fact-checkers themselves hope, but can help slow down the dissemination of falsehoods on social media. Furthermore, our analysis delivers clear policy implications – both providing fact-checking (even in the form of accompanying alternative facts with fact-checking links) and requiring additional clicks before sharing can be very effective.

Conclusion

The findings from our analysis of the worldwide spread of mobile broadband internet in the last decade are consistent with both optimistic and pessimistic views. On the one hand, 3G internet does help expose actual corruption. On the other hand, it helps populist opposition to gain votes. Likely, the latter result is eventually due to the populists’ abuse of online platforms for spreading disinformation. We show that the propagation of falsehoods on social media can be at least partially slowed down by fact-checking.

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