

In the echo chamber: Social media benefits from bringing like-minded people together at the expense of diversity of opinion.



IN THE ECHO CHAMBER

TEXT:
SABINE FISCHER

Studies show that the louder political minorities shout on social networks, the quieter the democratic majority becomes. Hate, hate speech, and propaganda thrive in echo chambers and distort perceptions in political discourse. Researchers investigate this phenomenon from the perspective of social science, law, and mathematics.

It's noisy up at the lectern of the German Bundestag. When Beatrix von Storch (Alternative for Germany, AfD) rails against the Green New Deal or her AfD colleague René Springer calls for "mass remigration," hardly a second passes without another shout of opposition echoing through the chamber. These include loud arguments from the ranks of the other parliamentary groups, indignant rebuttals, and requests to hurry up and get the speech over with. In contrast, there are hardly any objections in the comments section of the the AfD Bundestag parliamentary group's TikTok profile. There, where excerpts of these speeches are posted, the community often appears united in the sentiment: finally, someone has the nerve to come out and say it.

Emotional and provocative

These posts are dominated by shrill statements that the party's social media team display prominently in the middle of each video: "We need Fortress Europe!," "Citizens are being ripped off!," "How stupid can you be?!" These loud slogans in black lettering on a white background appear serious at first glance, which is what makes them all the more dangerous.

30 The statements that generate a lot of agreement in the AfD community are in fact extreme exaggerations devoid of context that cannot be verified – a form of propaganda that works particularly well on social media: "The posts by the AfD parliamentary group are a good example of how such content works on social platforms," says Philipp Lorenz-Spreen, who studies self-organized online discourse and its effects on democracy at the Max Planck Institute for Human Development. "TikTok is optimized for short, bombastic content that attracts people's attention in a matter of seconds. The algorithm rewards such provocative, emotional content and displays it frequently."

The AfD seems to have understood the formula: its posts regularly reach hundreds of thousands of people on TikTok – numbers that other parties represented there can only dream of. Many of them have long underestimated TikTok's potential and reach. Posts from the CDU and SPD parliamentary groups only average in the low five-digit range. The consequences are dire: hate speech, populism, and propaganda find their way onto countless users' feeds – and at first glance, they're often hard to see for what they truly are. How do algorithms influence the way we form opinions? Is it even possible to move and make decisions freely on social media? Lorenz-Spreen is very skeptical. He maintains that the idea people can move freely on social media platforms is an illusion: "Everything that you see on your feed or that is brought to your attention is predetermined and constructed by the platform. There is no such thing as a neutral space. The fact that users are

entering a space that limits their freedom of choice when they access their profile on Instagram, Facebook, or TikTok remains invisible to them at first. "There's a massive lack of transparency," Lorenz-Spreen explains. "As users, all we see is a nice, smooth interface. We have no information about how and where the content we see comes from, or why it's shown to us instead of other content. Information about why content is displayed on our feed and where it actually comes from is usually simply unavailable. This is a trap that even the most observant among us can't escape.

But it would be difficult for the platforms to create more transparency, says Lorenz-Spreen. "For example, if we as users were constantly shown how the algorithm

A researcher goes online:
Philipp Lorenz-Spreen explores the roots of
hate and disinformation on the internet.

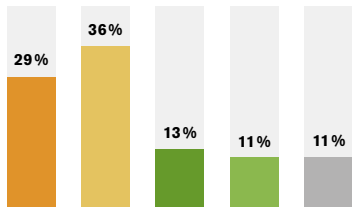


PHOTO: GESINE BORN FOR MPG

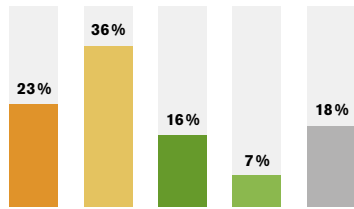
Hate and hate speech on social networks is on the rise and is silencing majorities. This is what the Jena Institute for Democracy and Civil Society found in an online survey of 7,349 people aged 18 and over in Germany.

WHAT DO YOU THINK ABOUT THE FOLLOWING STATEMENTS?

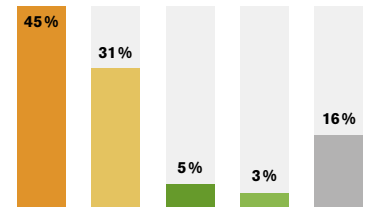
I'm surprised by how many people agree with hateful comments on some topics.



Public online hate has changed what you can and cannot say outside the internet.



Aggressive and derogatory comments have increased online in the last four years.



Agree Somewhat agree Somewhat disagree Disagree No answer

Source: IDZ

GRAPHIC: GCO, ADAPTED FROM THE INSTITUTE FOR DEMOCRACY AND CIVIL SOCIETY (IDZ)

works in the background, it would overwhelm us and disrupt our user experience.” He sees a solution in gamified approaches: “Platforms could allow users to modify the algorithm themselves and experience the consequences. For example, if you could set your preference to show more political content, you would simultaneously develop an awareness of the fact that content is pre-selected.”

However, commercial platforms have their own agendas: to be commercially successful, they need to keep their users engaged for as long as possible. Attention becomes a currency. And to ensure that this currency is spent in the highest possible installments, social media exploits the human need for entertainment and validation. After all, who doesn't like to spend time in a place where they feel comfortable and entertained? Unfortunately, this leads to the creation of social echo chambers on these platforms. “People are social creatures and like to surround themselves with others who share similar views. We are homophilic and strive to maintain a coherent worldview. This is why groups of people with similar views often form around those views,” says Lorenz-Spreen. Social networks act as a catalyst, he continues. “In this way, platforms satisfy their commercial need to engage users for as long as possible, and at the same time promote the formation of social echo chambers.” However, people are more susceptible to phenomena such as propaganda, hate speech, and misinforma-

tion in spaces where their own worldview is confirmed from all sides: “One explanation for this is false consensus, which is the feeling that thousands of people agree with you and you believe yourself to be the majority,” says Lorenz-Spreen. This is also a problem for democracy: “Social echo chambers are not conducive to a culture of debate,” says Lorenz-Spreen.

Visualizing the public sphere online

This finding can even be measured: at the Max Planck Institute for Mathematics in the Sciences in Leipzig, Eckehard Olbrich is researching the influence of social media on democracy and the visualization of the digital public sphere. The Odyceus project, a HORIZON 2020 project coordinated by Olbrich, has developed tools to measure the prevalence of echo chambers on social networks. “One empirical finding was that echo chambers are not closed. There can be an exchange between the individual camps – though this exchange can be quite hostile,” he says. For example, Olbrich and his team used clusters to examine the interaction between left-wing and right-wing networks on X (formerly Twitter) in a case study in Saxony. “We found that right-wing accounts react more actively to left-wing content than vice versa.”



What are the consequences of echo chambers for individuals – and society? According to Germany's Federal Statistical Office, about a quarter of all internet users were exposed to hate speech last year. A study by the Institute for Democracy and Civil Society (IDZ) examined the effects of hate and hate speech on those affected and on public dialog. Their finding: approximately two-thirds of those who have experienced hate speech report negative effects such as emotional stress, fear, anxiety, and depression. People who come into contact with hate speech online are also intimidated and sometimes excluded from public dialog. In a study published in 2024 by the Kompetenzzentrum gegen Hass im Netz (Competence Center against Hate on the Internet), about half of those surveyed said they were less likely to participate in online discussions and more likely to hide their political opinions as a result of hate speech.

This has serious implications for society as a whole. Together with Lisa Oswald, Stephan Lewandowsky, and Ralph Hertwig, Philipp Lorenz-Spreen investigated how the use of social media affects democracy. The research team analyzed around 500 scientific articles that show correlative and causal relationships between social media use and political behavior. Their finding: social media has both positive and negative effects on democracy. It increases political participation, motivates more people to take part in protests and civic engagement, and makes it easier compared to other media for people to receive information on par with their level of education. But there are drawbacks as well. "We see a lot of negative correlations between trust in democratic institutions and the use of social media. The more people use social media, the less trust they have." The exact cause, they say, needs to be the subject of further research, but it is clear that trust in institutions is a cornerstone of a functioning democracy.

The study also shows that social media encourages propaganda and populism: "Populist parties are particularly successful on social media platforms, and this carries over into the offline world. This is linked to trust in state institutions themselves. The lower the level of trust, the easier it is for populism to create enemy stereotypes." On social media, this works particularly well through short-form content and the feeling of group cohesion in social echo chambers. All in all, Lorenz-Spreen sees cause for concern: "When we look at these results, especially knowing that democracies

around the world are in crisis right now, I see a big question: how do we deal with this?" How do we tame the beast that is commercial social media platforms? Can negative effects such as propaganda, misinformation and hate speech be contained?

According to Johanna Rinceanu, Senior Researcher at the Max Planck Institute for the Study of Crime, Security and Law, these efforts have not been all that successful so far: "An aggressive tone often characterizes the new debate culture taking place online (Verrohung der Debattenkultur) that has yet to be contained," says Rinceanu. There are problems in many areas. For example, the speed of technological development makes legal regulation difficult. "The internet develops at the speed of light, while legislation moves at a snail's pace and can't keep up," explains Rinceanu. Moreover, attempts at regulation are always caught up in the conflict between freedom of expression and protection against hate speech and incitement to hatred. Legal interpretation is difficult. Since hate speech, for example, has no legal definition, it has to be decided on a case-by-case basis whether statements constitute incitement to hatred (Volksverhetzung) and are therefore subject to criminal law, or whether they fall under free speech.

It is hard to find a legal framework for this dilemma. The latest attempt is the Digital Services Act (DSA), which since February has regulated how online platforms within the European Union are required to handle hate speech, fake news and the like. The "notice and action" model is used to determine which posts might actually be punishable: users can report potentially criminal content to platforms, who are then obliged to review it and remove it if necessary. The

SUMMARY

Freedom on social media is an illusion: the algorithms used by commercial platforms create an artificial space. This space dictates what content appears on users' feeds – in a way that usually goes unnoticed.

The creation of social echo chambers and the reward system of algorithms make social media users particularly vulnerable to propaganda, hate speech, and misinformation.

Using social media has been shown to have a negative impact on trust in democratic institutions and to promote propaganda.

“Hate and hate speech on the internet are symptoms of a societal disease.”

JOHANNA RINCEANU

platforms are also required to report certain criminally relevant content to the authorities.

Until the Digital Services Act came into force, this was done in Germany on the basis of the Network Enforcement Act (NetzDG). This legislation was seen throughout Europe as a blueprint and served as the basis for the new EU standard. For Rinceanu, however, this initiative was a failed attempt to combat hate speech and incitement to hatred online. She maintains that the desire to send a political signal in opposition to online propaganda and hate was well-founded. However, the law was passed too quickly and was not well thought out. For instance, it obliges private companies such as social media platforms to decide within a short period of time (between 24 hours and seven days) whether content is criminally relevant or not. “This is not the job of private individuals; rather, it is the job of the judiciary,” criticizes Rinceanu. Due to the short deadline for removing illegal

posts and the large amount of content, platforms have little time to adequately review it. “Although artificial intelligence and algorithms can help with this task, these systems are not yet able to detect many nuances. For example, am I posting an article in order to criticize it, or because I agree with the content and want to share it? Ultimately, these things always have to be evaluated by a human being.” But employees of private companies are not up to the task. Rinceanu summarizes the result: “The concern that the NetzDG would lead to an excessive amount of content being deleted and reported was absolutely justified, given the developments during the last five years.” She refers to other countries that have adopted the regulation. “Among them were many so-called ‘defective democracies’ and autocratic systems, such as Kenya and Belarus. In order to manipulate elections, the regulations were then used to ensure that content, for example, had to be taken down.”

The Digital Services Act, which holds both large and small online providers accountable, gives Rinceanu hope. She welcomes the fact that the regulation no longer imposes a specific time limit for removing posts. This gives platforms more time to properly review content. In addition, only content that poses a threat to people’s lives or personal safety, such as death threats, needs to be reported to the authorities. “We now need to see whether the Digital Services Act is merely a beautification or whether it will actually help to ensure that social media platforms are effectively regulated,” she says.

A lawyer goes online: Johanna Rinceanu examines which regulations can curb hate on the internet.



PHOTO: JESSICA ALICE HATH

A prominent application is the European Commission’s case against TikTok for shortcomings in protecting minors, lack of transparency in advertising, and lack of access to data for researchers. TikTok’s risk management regarding addictive design and harmful content is also under scrutiny. “Protecting children and young people is a top priority when regulating social media platforms. It is not surprising that the EU is now investigating what risk assessments and measures TikTok, as a very large online platform with over 135 million monthly users in the EU, is taking to prevent the risk of behavioral addiction and radicalization,” says Rinceanu. Violating the DSA can be expensive: TikTok could be fined up to six percent of its previous year’s global revenue if the European Commission finds it at fault. As yet, it’s unclear when the case will be concluded.

It remains to be seen whether an EU regulation will be enough to bring hate speech and incitement to hatred under control. In order to make a long-term difference, Rinceanu believes that regulatory efforts need to start much earlier: “Hate speech and the like are symptoms of a societal disease, and we must first unveil the underlying structures and dynamics in order to better distinguish between symptoms and causes. That is the only way to make a meaningful diagnosis and find the best form of therapy.”

www.mpg.de/podcasts/unfreiheit (in German)