



Policy Brief

# Information manipulation as a complex challenge

## An integrative model for dealing with disinformation

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## Central findings

**The phenomenon of disinformation requires an integrated approach, as the problem is multi-factorial and represents a complex challenge for all of society.** All factors must be considered in all their sub-aspects and entanglements if an efficient strategy is to be developed. The integrated model allows for more comprehensive insights from the different perspectives as well as combined protection and mitigation options that can more effectively counter disinformation narratives and campaigns.

**From the information perspective, disinformation is a literacy or knowledge problem on the part of media recipients or information consumers, which is typically countered by promoting media literacy or reactive fact checks.** This perspective contributes to the big picture by showing how misleading content can be recognized and resisted by its target audience. There is a need for more work related to target groups for promoting media literacy, the spaces considered to be affected by disinformation, and psychological prevention.

**The security perspective views disinformation as a threat to political, economic, and social instability.** This arises when disinformation influences social discourse in order to achieve the political goals of state and/or non-state actors. A typical context for the security consideration of disinformation is alongside acts of aggression. Addressing disinformation as a security problem requires a coordinated effort at the international level.

**The technological perspective sheds light on the influence of technology on the communication behavior of users and the spread of disinformation in the digital space.** Relevant issues include the recommendation algorithms of social media platforms or technological progress in the field of generative artificial intelligence. An important tool for action in the area of technology is platform regulation.

**The social science perspective provides fundamental insights** into the nature, spread and impact of disinformation, its originators and target groups, and potential countermeasures. Social scientists can, for example, propose policy measures and regulations to minimize the influence of disinformation on democracy or make recommendations for strengthening citizens' media literacy. Viewing disinformation from this perspective means better understanding it and being able to contain it more effectively.

**From a democracy perspective, disinformation undermines an important pillar of democracy by corroding the concept of truth.** It is an attack on the very essence of democracy. That's why it is of central importance to also view the containment of disinformation from a democracy-centered perspective. Specific issues in this area include elections, undermining trust in institutions like the press, and fueling aggression towards particular social groups. Interventions are set more over the long term and less well-suited for limiting the reach of individual campaigns. Nevertheless, a resilient society and a strong democracy is an important factor protecting against the success of disinformation.

**Disinformation must be taken seriously in terms of its potential harm.** There is a need to broaden the view of the aspects currently being investigated and to combine approaches from different perspectives: information, security, technology, democracy

and social science. At the level of actors, too, it is advisable to unite individual efforts in focused, coordinated activities. This implies the exchange of knowledge among affected countries on one side, and the cooperation of different actors in e.g. politics, civil society and academia within these countries on the other. The state alone cannot be the communicator on the subject of disinformation. Perspectives should also be broadened with respect to the affected areas of society. Wherever people communicate, there is disinformation. With respect to the time scale, disinformation should be viewed as a long-term challenge. This means that a sustained promotion of scientific, journalistic and civil society engagement with the topic is necessary. Strengthening democracy is a fundamental pillar of being able to sustainably address the harmful effects of disinformation.

# Introduction

In recent years, there have been increasing debates over the harm caused by information that is untrue. "Misinformation" refers to misleading or inaccurate information that is spread inadvertently. "Disinformation", on the other hand, describes intentionally-disseminated and manipulative false information which is aimed at influencing public opinion and achieving specific objectives.

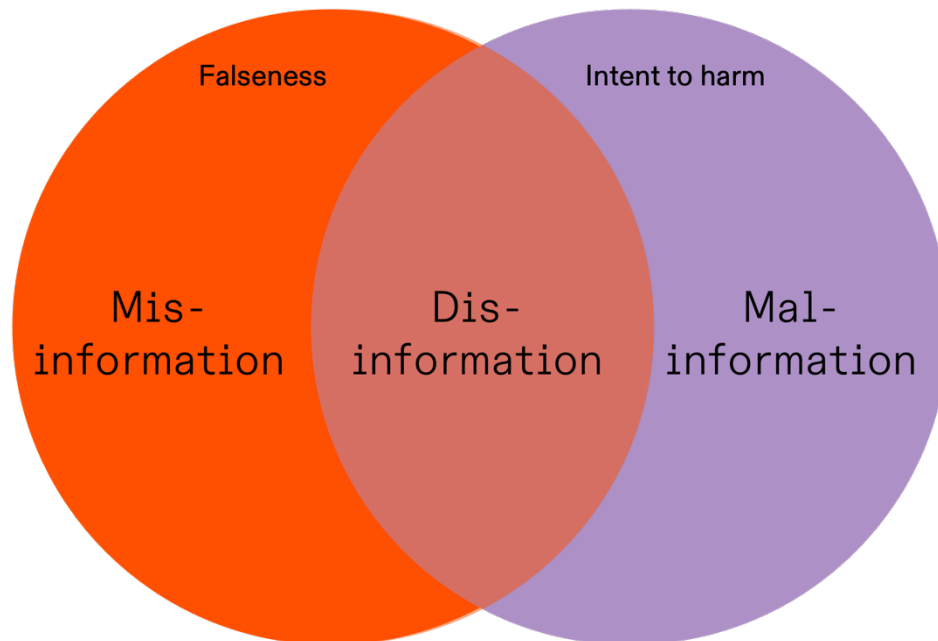


Figure 1: Classical definition of mis-, dis- and malinformation from Wardle<sup>1</sup>

In many cases, disinformation and misinformation are not discussed systematically in society, but rather on an ad hoc basis. While there were widespread debates about the dangers of "fake news" leading up to Donald Trump's 2016 presidential campaign, attention waned as years passed. Then, in the context of the COVID-19 pandemic, conspiracy-ideological narratives about government public health measures and vaccination were at the forefront of sociopolitical debate. With the start of the Russian war against Ukraine on February 24, 2022, social awareness of the dangers of disinformation and propaganda changed again. However, disinformation should not be seen as a problem limited to the context of individual events, but must be viewed as a constant stress factor for democracies.

Various surveys show that there is now a broader awareness of misinformation in society. A total of 64 percent of respondents said they were very or extremely afraid of misinformation and its effects on society, according to a study published in 2023 by the CDU-affiliated Konrad Adenauer Foundation.<sup>2</sup> The new developments surrounding the capabilities of artificial intelligence probably fuel these uncertainties further. An April 2023 survey by pollster Civey showed that 40 percent of Germans

<sup>1</sup> Wardle, C. (2020, Sept. 22). Understanding Information disorder. <https://firstdraftnews.org/long-form-article/understanding-information-disorder/>

<sup>2</sup> Deutschlandfunk.de (2023, Mar. 18). 64 Prozent haben große Angst vor Falschinformationen. Deutschlandfunk.de. <https://www.deutschlandfunk.de/64-prozent-haben-grosse-angst-vor-falschinformationen-102.html>

believe artificial intelligence will have more negative than positive consequences on average over the next decade.<sup>3</sup>

Germany still has room for improvement in terms of cybersecurity and digital resilience against disinformation. Looking at the results of the *FM Global Resilience Index*, for example, Germany was in fourth place overall in 2023, but only in 20th place for cybersecurity.<sup>4</sup> The *Global Cybersecurity Index 2022* ranked Germany 13th.<sup>5</sup> In its "Report on the State of IT Security in Germany 2022", the German Federal Office for Information Security (BSI) wrote that the threat in cyberspace - exacerbated by the Russian war of aggression in Ukraine - was higher than ever. Various agencies believe that Germany is among the countries most influenced by disinformation campaigns.<sup>6</sup> It is therefore urgent to implement systematic strategies and to consistently ensure the effectiveness of these measures.

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<sup>3</sup> Von Lindern, Jakob. (2023, Apr. 14). Mehr als die Hälfte der Deutschen hat Angst vor KI. Zeit.de. <https://www.zeit.de/digital/2023-04/ki-risiken-angst-umfrage-forschung-kira>

<sup>4</sup> FM Global (2023). FM Global Resilience Index: Germany. <https://www.fmglobal.com/research-and-resources/tools-and-resources/resilienceindex/explore-the-data/?&cr=DEU&sn=ex&cd=DEU>

<sup>5</sup> European Commission. <https://composite-indicators.jrc.ec.europa.eu/explorer/explorer/indices/GCI/global-cyber-security-index>

<sup>6</sup> Süddeutsche Zeitung, p. (2021, Mar. 9). EU-Bericht: Deutschland besonders im Fokus russischer Desinformation. Süddeutsche.de. <https://www.sueddeutsche.de/politik/deutschland-russland-desinformation-kampagnen-medien-1.5229205>

# Integrative model for dealing with disinformation

Despite greater societal concern with the various forms of information manipulation, it is also apparent that certain facets are often viewed in isolation from one another and are rarely systematically integrated.<sup>7</sup> Some aspects are also highlighted more frequently and intensively than others. However, because the problem is multi-factorial and a challenge for all of society, there is no avoiding the need to take a closer look at all the relevant factors and their interrelations if an effective strategy is to be developed.

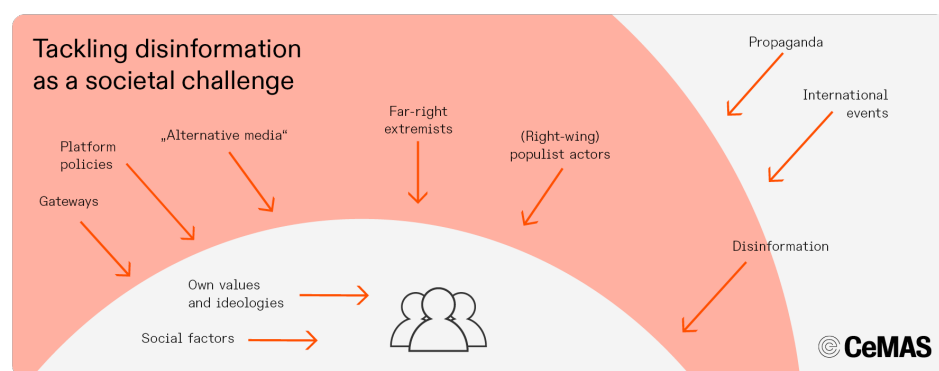


Figure 2: Multi-factorial influences of disinformation

Disinformation is spread by foreign actors and even by states, but domestic individuals and groups also play a role in spreading and normalizing propaganda content. The EU Commissioner for Values and Transparency, Věra Jourová, warned in May 2023 that Germany would be particularly targeted by Russian disinformation campaigns and that this mechanism would be reinforced by pro-Russian actors within Germany.<sup>8</sup>

Personalized social media optimized for attention and interaction can amplify the problem - the often-unknown algorithms used for this optimization by platform operators influence how certain content can spread, but are too often narrowly conceived as the singular reason for the success of information manipulation. Disinformation spreads in the analog world as well, and even in the digital space, algorithms are not the only relevant factor. The timelines for Telegram channels, for example, are not sorted algorithmically, but chronologically. Yet Telegram plays an important role as a platform for radicalization in Germany.<sup>9</sup>

People believe propaganda not just out of ignorance or technological manipulation, but also because it aligns with their own values and ideologies.<sup>10</sup> Studies show that

<sup>7</sup> Wardle, C. (2023, June 5). I Helped Lead the Movement Against "Fake News." I Have a Big Regret. Slate Magazine. <https://slate.com/technology/2023/06/the-problem-with-misinformation.html>

<sup>8</sup> Schrader, Hannes. (2023, May 14). EU-Kommissarin warnt vor Einfluss Moskaus auf deutsche Politik. Spiegel.de <https://www.spiegel.de/politik/deutschland/desinformation-eu-kommissarin-warnt-vor-einfluss-moskaus-auf-deutsche-politik-a-f8cb150a-96ba-4a65-9ba3-be38022809fd>

<sup>9</sup> Holnburger, J. (2023). Chronology of a radicalization: How Telegram became the most important platform for conspiracy ideologies and right-wing extremism. <https://cemas.io/en/publications/chronology-of-a-radicalization/>

<sup>10</sup> Lamberty, P., Heuer, C. & Holnburger, J. (2022). Belastungsprobe für die Demokratie: Pro-russische Verschwörungserzählungen und Glaube an Desinformation in der Gesellschaft. <https://cemas.io/publikationen/belastungsprobe-fuer-die-demokratie/>

fundamental political attitudes play a major role in vulnerability to misinformation.<sup>11</sup> In many cases, there is an evident dynamic in which misinformation initially often spreads within more radicalized groups whose members often believe other misinformation as well. From these rather small groups, misinformation then increasingly spreads throughout society as a whole - both through public or media figures and via social media platforms.<sup>12</sup>

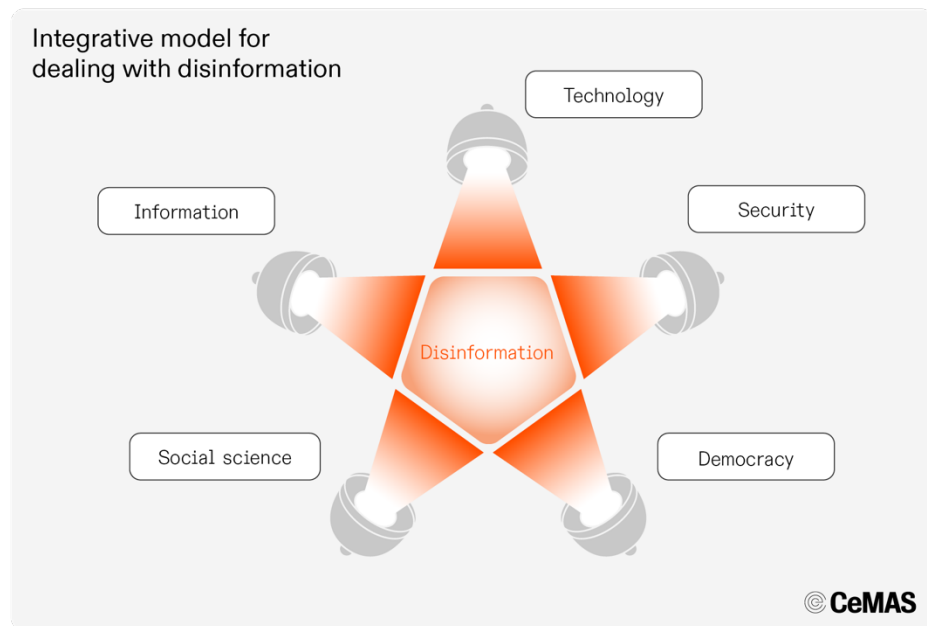


Figure 3: Integrative model for containing disinformation

In order to deal effectively with this complexity, it is necessary to adopt a systemic perspective. We therefore present an integrative approach to dealing with disinformation. It aims to capture the phenomenon in its complexity and to integrate the different perspectives. In this model, the various perspectives relevant to disinformation are systematically considered and placed in relation to one another:

<sup>11</sup> Gawronski, B., Ng, N. L., & Luke, D. M. (2023). Truth sensitivity and partisan bias in responses to misinformation. *Journal of Experimental Psychology: General*.

<sup>12</sup> Bruns, H., Dessart, F.J. and Pantazi, M. (2022). COVID-19 misinformation: Preparing for future crises (p. 21ff). EUR 31139 EN, Publications Office of the European Union.

## Disinformation as an information problem

The phenomenon of disinformation is often seen in wider societal debates to be predominantly an information problem.<sup>13,14</sup> From this perspective, disinformation is a literacy or knowledge problem among media recipients or information consumers. Therefore, it focuses primarily on the recipients of disinformation, on how to recognize misleading or false content, and how to improve critical media skills.<sup>15</sup>

**The problem goes beyond the falseness of the information.** The focus on falsehood or information manipulation also has to do with the definition of disinformation: The term refers to misinformation which is intentionally spread. Often, however, this reduction to its truthfulness results in a narrow focus that overlooks other harmful forms of communication. Propaganda attempts to influence opinions and uses a wide repertoire of methods to do so. Moreover, studies show that it is precisely those people whose worldview is confirmed by misinformation who are more likely to believe it.<sup>16</sup> Likewise, the misleading character of a message can lie not only in its content but also in its originator, as when information is conveyed under a false identity. The essential point that should be problematized from the information perspective is therefore not just the falseness of a statement, but rather its misleading effect.

**Disinformation is not just a social media problem.** In societal debates, the focus in the context of disinformation is typically on large platforms such as Facebook or Twitter, although the problem also manifests in other digital<sup>17</sup> and analog spaces that are easily overlooked. One example of this is the spread of dis- and misinformation via messenger services such as WhatsApp.<sup>18</sup> In an *infratest dimap* survey for the *vodafone* Foundation on the use of messenger services among 14- to 24-year-olds, 61 percent



Figure 4: Exemplary headlines on disinformation from an information perspective. Translation:

Background: Year in Review 2022: The most persistent fake news and most-read fact checks

Digital Disinformation: Critical media literacy as a pillar of democratic resilience in times of "fake news" and online disinformation

Fact check on Ukraine: These are the biggest fake news stories on the war in Ukraine

<sup>13</sup> The Federal Government of Germany (2023, Feb. 22). Dangerous fake news: What the Federal Government is doing and what you can do too <https://www.bundesregierung.de/breg-de/service/datenschutzhinweis/dangerous-fake-news-1911034>

<sup>14</sup> Hate Aid (2021, Jan. 6). „Fake News“: Was hilft gegen aktuelle Desinformation? <https://hateaid.org/fake-news/>

<sup>15</sup> Agence Erasmus + France Education Formation (2021, July 19). Media literacy: The cure for online disinformation! <https://epale.ec.europa.eu/en/content/media-literacy-cure-online-disinformation>

<sup>16</sup> Gawronski, B., Ng, N. L., & Luke, D. M. (2023). Truth sensitivity and partisan bias in responses to misinformation. *Journal of experimental psychology. General*, 10.1037/xge0001381. Advance online publication. <https://doi.org/10.1037/xge0001381>

<sup>17</sup> NDR.de. (2022, Sept. 2). Gefälschte Nachrichtenseiten: So erkennt man sie. NDR.de. <https://www.ndr.de/ratgeber/Gefaelschte-Nachrichtenseiten-So-kann-man-sie-erkennen,fakenews280.html>

<sup>18</sup> Gensing, P. (2020, March 16). Coronavirus: Falschmeldungen bei Whatsapp. Deutschlandfunk.de. <https://www.deutschlandfunk.de/coronavirus-falschmeldungen-bei-whatsapp-100.html>



reported they had received false information via messenger services. A total of 55 percent of respondents fully or somewhat agreed with the statement that they trust information from chats more than information from social media.<sup>19</sup> A meta-analysis of misinformation during the pandemic found that WhatsApp, Facebook, Twitter, Instagram, and YouTube were the most common social media platforms used to spread misinformation about COVID-19. WhatsApp was cited as a conduit in 80 percent of the selected studies, followed by Facebook (66 percent).<sup>20</sup>

**Subsequent correction is important, but is only part of the solution.** When media literacy is discussed, it is usually viewed from a journalistic perspective, teaching the use of tools to verify the authenticity of claims.<sup>21,22</sup> A widespread measure against disinformation in the area of information perspective is debunking, i.e. the soundly-researched exposing of disinformation after it has been published, often referred to as fact-checking.<sup>23</sup> However, the reactive nature of this intervention leaves open a period of time in which the false information can already spread and have an effect.<sup>24</sup> In contrast, media literacy training in various forms aims to produce a preventative effect within the framework of the information perspective. Users are taught, for example, how to recognize fake images or how to check the reliability of a source. Parents also receive advice on how to approach the issue with their children. Such measures are carried out by schools and other educational institutions as well as by projects, initiatives and associations working specifically in this field.<sup>25, 26</sup>

The advantage of these measures is that they are both well-researched<sup>27</sup> and well-known due to their widespread use. In the future, however, the previously less-emphasized aspects of the information perspective should also be fleshed out. From a prevention perspective, there is a relevant psychological question as to why disinformation appeals to people in the first place. The aim should be not only to refute disinformation that has already been perceived, but to activate a pattern of thinking to defend against misleading or false information immediately upon being confronted with it. Those who are familiar with typical narratives and the manipulative tricks of disinformation should become suspicious more quickly when exposed to such content, examine it more closely, and be more likely to screen out the false message such that its impact is limited. Research findings on such interventions are promising

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<sup>19</sup> Vodafone Foundation (2021, March). Generation Messenger: Eine repräsentative Befragung junger Menschen zur Nutzung von Messengerdiensten. <https://www.vodafone-stiftung.de/expertenbefragung-desinformation-wahl-gesellschaft/>

<sup>20</sup> Malik, A., Bashir, F., & Mahmood, K. (2023). Antecedents and Consequences of Misinformation Sharing Behavior among Adults on Social Media during COVID-19. *SAGE Open*, 13(1). <https://doi.org/10.1177/21582440221147022>

<sup>21</sup> European Union. Spot and fight disinformation. [https://learning-corner.learning.europa.eu/learning-materials/spot-and-fight-disinformation\\_en](https://learning-corner.learning.europa.eu/learning-materials/spot-and-fight-disinformation_en)

<sup>22</sup> Erb, S. (2020, July 17). Fünf Tipps, um Fakenews zu entlarven. *Fluter.de*. <https://www.fluter.de/fakenews-erkennen-tipps>

<sup>23</sup> CORRECTIV.Fact Check. FAQ: Häufig gestellte Fragen an CORRECTIV.Faktencheck. <https://correctiv.org/faktencheck/faq-haeufig-gestellte-fragen-an-das-faktencheck-team/>

<sup>24</sup> Pörksen, B. (2022, July 27). „Impfung“ gegen Desinformation: Wie man Fake News vorbeugen kann. *Deutschlandfunkkultur.de*. <https://www.deutschlandfunkkultur.de/fake-news-vorbeugen-impfung-gegen-desinformation-100.html>

<sup>25</sup> German Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (2021, June 23). Medienkompetenz stärken. <https://www.bmfsfj.de/bmfsfj/themen/kinder-und-jugend/medienkompetenz/medienkompetenz-staerken-75350>

<sup>26</sup> Jugendschutz.net. Zentrale Initiativen und Portale. <https://www.jugendschutz.net/service/zentrale-initiativen-und-portale>

<sup>27</sup> Ziemer, C. (2023). Psychologische Interventionen gegen Desinformation. <https://cemas.io/blog/psychologische-intervention/>

and should form the impetus for increased interventions of a psychological nature that can complement journalism-based interventions.<sup>28</sup>

**Disinformation is a problem for all age groups.** The issue of targeting demographics for outreach is one slice of the overall phenomenon. It includes several age groups as sub-aspects, but these are not given the same level of attention. While the question of greater media literacy affects all demographic groups, the social debate and the allocation of funding mostly focus on measures for children and youth.<sup>29</sup> The target group of adults is less frequently included in the debate, although it is just as affected.<sup>30</sup> Experts see older target groups in particular as being at risk as less awareness-raising and education is offered to these groups.<sup>31</sup> According to self-reported data in a 2019 pwc survey, older respondents feel that they are less savvy than younger people when it comes to dealing with disinformation. In the 18-29 age group, for example, 68 percent rated their level of awareness as very good or rather good. This figure declined with advancing age, with only 49 percent of the over-60 age group reporting a very or rather good level of awareness. In this survey, too, participants of different age groups reported differing encounters with awareness measures. While in the younger target group of 18-29 year-olds, 19 percent stated that they had "not yet received any" education on disinformation, the figure rose with each age group and was 37 percent among the over-60s.<sup>32</sup> Compared to the younger target group, there is a lack of systematic institutions, such as schools, through which this population can be reached. Few measures are dedicated to this target group in the context of disinformation.<sup>33</sup> In times of rapid technological change with societal implications, however, adults also need support in terms of constantly strengthening their media skills.

**Disinformation takes place wherever people communicate.** Accordingly, society's understanding of the space in which disinformation can occur should expand to include the internet beyond social media as well as analog spaces. The challenge in analog spaces is that influence is less visible and therefore fewer or delayed countermeasures can be expected.

One example of such a campaign was the so-called *Freedom Messengers* ("Freiheitsboten") in which brochures were used to spread disinformation about the

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<sup>28</sup> Gilbert, E. (2022, Nov. 8). A "psychological vaccine": Why prebunking is the best way to fight misinformation. <https://bigthink.com/thinking/psychological-vaccine-prebunking-misinformation/>

<sup>29</sup> Schwarz, K. (2022, March). Auch Erwachsene brauchen Medienkompetenz. <https://www.goethe.de/ins/se/de/kul/ges/mdn/22837609.html>

<sup>30</sup> Sangerlaub, A. (2022, Jan. 5). Medienkompetenz der 50-Generationen: Eine Frage des Alters?. Deutschlandfunk.de. <https://www.deutschlandfunk.de/fehlt-den-ue50-generationen-medienkompetenz-100.html>

<sup>31</sup> Vodafone Foundation (2021, March). Generation Messenger: Eine reprasentative Befragung junger Menschen zur Nutzung von Messengerdiensten. <https://www.vodafone-stiftung.de/expertenbefragung-desinformation-wahl-gesellschaft/>

<sup>32</sup> PwC (2019, Apr.). "Fake News": Ergebnisse einer Bevolkerungsbefragung. <https://www.pwc.de/de/technologie-medien-und-telekommunikation/pwc-bevoelkerungsbefragung-fake-news.pdf>

<sup>33</sup> Business Council for Democracy. Neue Allianzen fur das digitale Zeitalter. <https://www.bc4d.org/>

COVID-19 pandemic.<sup>34</sup> Various flyers were printed and distributed with a self-claimed distribution of several million copies. This was able to occur without any awareness countermeasures. In Sweden, on the other hand, a brochure on how best to behave in an emergency was sent to all households in 2018 as part of an awareness campaign on crises and war situations. This included awareness-raising on how to deal with disinformation.<sup>35</sup>

From the information perspective on disinformation, the teaching of media literacy must be expanded: It must not be limited to children and young people, but lifelong learning should instead be broadened in the context of media literacy. The information perspective offers several well-researched approaches to building societal resilience, but taken alone it is often too narrow when it comes to gaining a systematic understanding of disinformation.



Figure 5: Brochure from the Swedish Civil Defense and Preparedness Agency on how to deal with crises and wars, distributed to all households in 2018.

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<sup>34</sup> Rohwedder, W. (2021, Feb. 10). Flugblatt zu Corona: Desinformation in Millionenaufgabe. Tagesschau.de. <https://www.tagesschau.de/faktenfinder/freiheitsboten-flyer-101.html>

<sup>35</sup> Abbott, A. (2018, May 22). Schweden bereitet seine Bürger auf den Ernstfall vor. Spiegel.de. <https://www.spiegel.de/politik/ausland/schweden-broschuere-gibt-anleitungen-fuer-den-fall-von-krieg-und-krise-a-1208838.html>

## Disinformation as a security problem

Disinformation is not just an information problem, but can also pose a serious security problem. Disinformation can cause political, economic, and social instability by spreading misinformation, propaganda, and conspiracy narratives. Coordinated disinformation activities are planned, published, and disseminated by states, radical domestic groups, or financially-interested actors in order to achieve political goals by influencing social discourse, which in turn poses security risks for the society targeted.<sup>36</sup>

**Disinformation can directly threaten the security and stability of states.** When disinformation campaigns are specifically aimed at swaying public opinion in a certain direction, they can influence political decision-making processes and undermine democratic principles. This can lead to a weakening of institutions, the rise of authoritarian regimes and a loss of individual freedoms. Examples are constantly emerging of how democratic elections can be influenced.<sup>37</sup> An entire industry has now developed that at least claims to be able to exert substantial influence over election results, as various investigations have revealed.<sup>38</sup> New developments in artificial intelligence may exacerbate these developments.<sup>39</sup>

**Particularly in the context of armed conflicts and violent clashes, disinformation campaigns play a security-relevant role.** Disinformation campaigns from Russia in the context of the invasion of Ukraine are currently a well-discussed example. But other countries also regularly experience such campaigns in the run-up to, or during, armed conflicts. Taiwan, which sits under threat by China, is exposed to more disinformation spread by foreign governments than any other country, according to the Swedish research institute V-Dem.<sup>40</sup> There were also reports from Sudan of disinformation



Figure 6: Exemplary headlines on disinformation from a security perspective. Translation:

“Challenge for our security forces”. The Office for the Protection of the Constitution warns of disinformation bei “Querdenkers” and far-right extremists

Targeted fake news: EU Commissioner Jourová wants to punish disinformation

Social Networks: Pressure from the EU: Facebook and YouTube block Russian state media in Europe

<sup>36</sup> The Federal Government of Germany (2022, June 2). Definition: What is disinformation?

<https://www.bundesregierung.de/breg-de/themen/umgang-mit-desinformation/was-ist-desinformation-1875148>

<sup>37</sup> Institute of Strategic Dialogue. (2022, Nov. 4). Electoral Disinformation.

<https://www.isdglobal.org/disinformation/electoral-disinformation/>

<sup>38</sup> Buschek, C., Höfner, R., Hoppenstedt, M., Lehberger, R., Obermaier, F. & Rosenbach, M. (2023, February 15). Geheime Digitalsoeldner-Truppe: Wer sich hinter Team Jorge verbirgt. Spiegel.de. <https://www.spiegel.de/netz-welt/web/storykillers-wer-sich-hinter-digitalsoeldner-truppe-team-jorge-verbirgt-a-9c952390-e4ab-4761-9f99-c15e5b902f43>

<sup>39</sup> Milmo, D. & Hern, A. (2023, May 20). Elections in UK and US at risk from AI-driven disinformation, say experts.

TheGuardian.com. <https://www.theguardian.com/technology/2023/may/20/elections-in-uk-and-us-at-risk-from-ai-driven-disinformation-say-experts>

<sup>40</sup> Puttfarcken, L. & Tai, Katharin. (2022, Feb. 11). Netz aus Lügen - Der Ausweg. <https://www.bpb.de/mediathek/audio/505063/netz-aus-luegen-der-ausweg-7-8/>

campaigns that allegedly preceded the recent violent escalation.<sup>41</sup> The NATO exercise *Air Defender 23* therefore also includes hybrid warfare and the influencing of public opinion by the aggressor states in its exercise scenario.<sup>42</sup>

**Critical infrastructure can also be the subject of disinformation campaigns.** For example, uncertainty about the stability of supply chains can be exacerbated, as happened in Germany in the fall and winter of 2022.<sup>43</sup> Simulation studies also show that, at least theoretically, such disinformation can also lead to uninformed consumers synchronizing their energy consumption behavior, which can lead to blackouts in cities when the grid is under heavy load.<sup>44</sup> Additionally, according to the German Federal Office for Information Security (BSI), the likelihood of cyberattacks by Kremlin-associated networks on critical infrastructure has also increased in Germany since the Russian war of aggression began.<sup>45</sup>



Figure 7: Telegram post about alleged blackout in Germany. Translation: "One of my most important videos so far. Blackout in the fall: Schwab is planning a cyberattack."

**Disinformation and misinformation can also pose additional challenges for crisis management in the context of natural disasters.** Incorrect information in the context of a disaster can impede rescue operations<sup>46</sup> or fuel panic.<sup>47</sup> Furthermore, in the aftermath of disasters, targeted disinformation can be spread to undermine democratic processes.

**Addressing disinformation as a security problem requires a coordinated effort at the international level.** This includes measures such as promoting digital resilience; strengthening cybersecurity; collaboration between governments, academia, technology companies, and civil society; and developing effective mechanisms to monitor and combat disinformation. Only through a comprehensive approach can we contain the effects of disinformation and ensure the security of our societies.

Nevertheless, one should not make the mistake of narrowing disinformation to the issue of security alone: The mere application of the criminal code does not solve the

<sup>41</sup> Beam Reports. (2022, Nov.). Share Mania: Mapping Misinformation and Disinformation in Sudan. <https://www.beamreports.com/2023/01/15/share-mania-mapping-misinformation-and-disinformation-in-sudan/>

<sup>42</sup> Franz, R. (2023, Jan. 6). The Western Alliance in the Fight Against the Occasus Alliance. <https://www.bundeswehr.de/en/western-alliance-in-the-fight-against-the-occasus-alliance-5632346>

<sup>43</sup> Serrano, R. M. (2023, Apr. 11). Blackout Disinformation: An attempt to leave the energy transition on the dark. <https://www.disinfo.eu/publications/blackout-disinformation-an-attempt-to-leave-the-energy-transition-in-the-dark/>

<sup>44</sup> Raman, G., AlShebli, B., Waniek, M., Rahwan, T., & Peng, J. C. (2020). How weaponizing disinformation can bring down a city's power grid. *PloS one*, 15(8), e0236517. <https://doi.org/10.1371/journal.pone.0236517>

<sup>45</sup> RND. (2023, Feb. 23). Desinformation im Netz durch kremlnahe Netzwerke: IT-Forscher für Regulierung sozialer Medien. RND.de. <https://www.rnd.de/politik/desinformation-ukraine-krieg-verschaerft-sicherheitslage-im-internet-FVIHZMSTKT3T2XQBOBTSIBNRY.html>

<sup>46</sup> Dallo, I., Fallou, L., Corradini, M. & Marti, M. How can we fight earthquake misinformation? <http://www.rise-eu.org/dissemination/good-practices/How-can-we-fight-earthquake-misinformation/>

<sup>47</sup> Johansmeyer, T. (2023, Feb. 20). Is disinformation during natural disasters an emerging vulnerability? <https://www.soas.ac.uk/study/blog/disinformation-during-natural-disasters-emerging-vulnerability>

disinformation problem, since in many cases disinformation is not a criminal offense. Nor would it be the state's job to define truth. In any case, when dealing with disinformation, tact is needed in order not to overlook the thin line between legitimate expression of opinion, which must be protected, and harmful disinformation. With increasing regulation, there is also a risk that a signal effect of German or European legislation will be perceived in other countries that view the regulation of discourse spaces with less liberal interests. Time and again, for example, so-called "fake news laws" are passed in countries such as Russia<sup>48</sup> or Turkey<sup>49</sup> in order to restrict freedom of expression.

## Disinformation as a technology problem

The societal debate about disinformation sometimes focuses on technological factors. Frequently, however, the entire digital space is not considered; instead, there is often only discussion concerning the major social media platforms, whose structure and dynamics exacerbate the problem of disinformation.

Platforms such as Facebook or Twitter are an important technological plane on which the digital dissemination of disinformation takes place. Nevertheless, the view should also be extended to other digital places of exchange, such as messenger services like WhatsApp, especially when they introduce new features - as WhatsApp did with channels - that are already known to be problem amplifiers on other platforms.<sup>50</sup> But question-and-answer portals or review sites should not be overlooked either. Disinformation takes place wherever people communicate.

**Algorithms promote the spread of disinformation. But they are only one factor among many.** So far, the public and researchers lack insight into the nature of algorithms that determine which content is displayed to users.<sup>51</sup> Independent research has



Figure 8: Exemplary headlines on disinformation from a technology perspective. Translation:

Experts warn of increased disinformation through AI

Digital Services Act - How the EU will regulate Facebook & co. in the future

Disinformation: Users should be able to adapt algorithms from Facebook & co

<sup>48</sup> Gebert, S. (2020, Apr. 7). Russische Medien und Corona - Umstrittenes „Fake News“-Gesetz verschärft. Deutschlandfunk.de. <https://www.deutschlandfunk.de/russische-medien-und-corona-umstrittenes-fake-news-gesetz-100.html>

<sup>49</sup> ZDFheute (2022, Oct. 14). Türkei: Bei „Falschnachrichten“ droht Haft. Haft für Verbreitung von Falschnachrichten in der Türkei - ZDFheute. <https://www.zdf.de/nachrichten/politik/tuerkei-gesetz-haftstrafen-falschnachrichten-100.html>

<sup>50</sup> RND (2023, June 8). WhatsApp kündigt Kanäle an: Messenger kopiert Telegram-Feature. RND.de. <https://www.rnd.de/digital/whatsapp-kuendigt-kanale-an-messenger-kopiert-telegram-feature-G45V53IE6BEK-BAVV3RIUMDCCMI.html>

<sup>51</sup> Hurtz, S. (2022, Apr. 3). Kein Algorithmus ist auch keine Lösung. Sueddeutsche.de. <https://www.sueddeutsche.de/wirtschaft/social-media-algorithmus-facebook-instagram-1.5559071>

only been possible to a limited extent, hence the reliance on leaks from whistleblowers in many cases. In 2021, some light was shed when former Facebook employee Frances Haugen shared her impressions of Facebook's algorithm.<sup>52</sup> She had previously worked in the department that dealt with disinformation in the U.S. election campaign. Haugen accused Facebook of gearing its algorithm toward triggering anger in 2018. Since the business models of large social media companies such as Facebook or Twitter are based on advertising, the platforms are designed to keep users online for as long as possible. Negative content is conducive to this.<sup>53,54</sup> According to Haugen, this dynamic causes systemic problems for society, but is in the economic interest of the platforms, putting them in a conflict of interest. Accordingly, regulation is needed to ensure that these systemic risks are contained. The fast business of attention in social media is countered by the slow legislative process. However, the first priority should be transparency, so that the actual nature and impact of algorithms can be investigated independently.<sup>55</sup>

### **Platform regulation as a solution approach of the technological perspective.**

Socially, there is much debate about what role social media, and thus platform operators, should play in society. Deplatforming, i.e. deleting accounts or content that violates the company's guidelines, is often a controversial topic. However, research paints a clear picture: Deplatforming is effective because it means that far-right or conspiracy-ideological accounts in particular have less reach to spread their content.<sup>56</sup> The same applies to the spreaders of disinformation. Deplatforming does not solve the underlying problem of spreading hateful content and disinformation, but it is a way to limit its reach.

However, the issue of deplatforming is not just a technical problem, but a social one. That is why it is important that policies used as a basis for decision-making are not only further developed, but also made transparent. As a society, we need to better understand the role that social media plays in radicalization and the spread of disinformation. This requires in-depth and long-term research. Currently, however, access to data from the platforms is limited. Criticism is repeatedly voiced that the platforms make independent research more difficult. This is set to change in the long term as a result of the Digital Services Act (DSA), which is intended to regulate digital services in the EU in the future. For particularly large platforms (over 45 million users EU-wide), data access for researchers is to be made easier<sup>57</sup> - this includes Facebook, Twitter and YouTube, for example.<sup>58</sup>

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<sup>52</sup> Wilhelm, K. & Oswald, B. (2021, Oct. 4). Facebook-Whistleblowerin outet sich - und erhebt neue Vorwürfe. Br.de. <https://www.br.de/nachrichten/netzwelt/facebook-whistleblowerin-outet-sich-und-erhebt-neue-vorwuerfe,Skrk974>

<sup>53</sup> Antypas, D., Preece, A. & Camacho-Collados, J.I (2023, Jan.). Negativity spreads faster: A large-scale multilingual twitter analysis on the role of sentiment in political communication. *Online Social Networks and Media*, 33. <https://www.sciencedirect.com/science/article/pii/S2468696423000010>

<sup>54</sup> Tsugawa, S. & Ohsaki, H. (2015, Nov.). Negative Messages Spread Rapidly and Widely on Social Media. *COSN '15: Proceedings of the 2015 ACM on Conference on Online Social Networks*, 1, 151-160. <https://dl.acm.org/doi/abs/10.1145/2817946.2817962>

<sup>55</sup> Albert, J. (2023, March 15). Risky business: How do we get a grip on social media algorithms? <https://algorithmwatch.org/en/risky-business-social-media-algorithms/>

<sup>56</sup> Fielitz, Maik, Karolin Schwarz (2020). Hate not Found. Das Deplatforming der extremen Rechten. Forschungsbericht. Jena: IDZ, Institute for Democracy and Civil Society.

<sup>57</sup> European Commission (2023). Europe fit for the Digital Age: New online rules for platforms.

[https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/digital-services-act-ensuring-safe-and-accountable-online-environment/europe-fit-digital-age-new-online-rules-platforms\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/digital-services-act-ensuring-safe-and-accountable-online-environment/europe-fit-digital-age-new-online-rules-platforms_en)

<sup>58</sup> European Commission. (2023, Apr. 25). Digital Services Act: Commission designates first set of Very Large Online Platforms and Search Engines. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_2413](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_2413)

Upcoming legislative changes or declarations of intent such as the Digital Services Act (DSA), the Strengthened Code of Practice on Disinformation, and the EU AI Act address these and other issues and chart the path towards stronger platform regulation in Europe. Both the design of their content, which must be close to the actual conditions in the digital discourse, and their efficient and sufficiently-resourced implementation in practice, are important. Likewise, citizens must be informed and empowered to know and apply the implications of these documents.<sup>59</sup>

**Generative AI as a growing challenge.** In addition to the familiar problems with social media platforms, another potential danger for the widespread dissemination of credible-seeming disinformation is emerging in the area of the technological perspective with the increase in the capabilities and general availability of generative artificial intelligence.<sup>60</sup> Tools like ChatGPT or MidJourney are able to create machine-generated but believable and genuine-looking text, images, and videos with minimal effort. According to a May 2023 YouGov survey, 29 percent of respondents said they were concerned about threats to democracy from fake or distorted content in the face of artificial intelligence.<sup>61</sup> It is to be expected that knowledge of the existence and dissemination of such tools will give rise to doubts even in the case of authentic content, which may ultimately also play into the narrative of being unable to ascertain any objective truth. Thus, disinformation can create the impression among media recipients that truth cannot be objectively known, which deprives fact-based debates of their foundation.<sup>62</sup>

**The beacon amidst the noise: dealing with generative AI.** As far as the influence of generative AI on social discourse is concerned, a change of perspective is recommended, moving away from the detection of inauthentic content and more towards the detection of trustworthy content. In particular, representatives of reputable sources have the task of being the beacon amidst presumably increasing background noise of misleading contributions. On the user side, that would suggest that some sources carry an identifying mark of trustworthiness, whose statements are more likely to be relied upon. Examples of such tools are *NewsGuard* and the *Content Authenticity Initiative*. NewsGuard evaluates media based on compliance with journalistic standards and assigns a rating.<sup>63</sup> The Content Authenticity Initiative makes the origin and editing history of photos traceable, so that users can see whether the original shot has been altered.<sup>64</sup>

**Digital culture also plays a role in combating disinformation.** People use the digital space differently. While nearly 490 million people in India use WhatsApp,<sup>65</sup> China makes heavy use of the app WeChat.<sup>66</sup> The digital spaces that people use can therefore differ from country to country. When it comes to developing meaningful

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<sup>59</sup> Blumenthaler, L. (2023, Feb. 28). Starke Plattformaufsicht für eine starke Demokratie – Forderungen zur Umsetzung des Digital Services Coordinators. <https://www.amadeu-antonio-stiftung.de/europa-data-96477/>

<sup>60</sup> Reveland, C. & Siggelkow, P. (2023, March 31). KI-generierte Desinformation auf dem Vormarsch. Tagesschau.de. <https://www.tagesschau.de/faktenfinder/ki-desinformation-fakes-101.html>

<sup>61</sup> Sonnenberg, A. (2023, May 17). KI – Chance oder Bedrohung? <https://yougov.de/topics/technology/articles-reports/2023/05/17/ki-chance-oder-bedrohung>

<sup>62</sup> Pomerantsev, P. (2020). This is not propaganda (p. 156ff). Faber & Faber.

<sup>63</sup> NewsGuard. NewsGuard Ratings. <https://www.newsguardtech.com/solutions/newsguard/>

<sup>64</sup> Content Authenticity Initiative. How it Works. <https://contentauthenticity.org/how-it-works>

<sup>65</sup> Potor, M. (2023, Feb. 7). Messaging apps in India: overview, usage, and current statistics.

<https://engage.sinch.com/blog/messaging-apps-in-india/>

<sup>66</sup> Statista (2023). Share of internet users of the leading social media in China as of 3rd quarter 2022.

<https://www.statista.com/statistics/250546/leading-social-network-sites-in-china/>



strategies against disinformation, it is important to gain an understanding of the fact that there are cultural differences in terms of who spends time where and how platform-specific communication takes place.

Particularly with the technological perspective, narrowing the disinformation problem to the one perspective is tempting. However, it must be recalled that algorithmically-sorted content alone is not responsible for disinformation, and artificial intelligence in the field of disinformation is not just a source of problems. For example, the Telegram platform, which is considered a central hub for radicalized thought in German-speaking countries, sorts the content of subscribed channels chronologically.<sup>67</sup> As far as artificial intelligence is concerned, it could also help in the future to recognize generated content<sup>68</sup> or to refute disinformation more quickly than was previously possible - and thus significantly reduce the lead time of a false report before it is refuted. So far, this has not worked, but technical progress continues.<sup>69</sup> Furthermore, the spaces considered from a technological perspective should not be narrowly focused on social media, but should be expanded to include all digital exchange formats. When considering the topic of disinformation from a technological perspective, sensitivity is required in the assessment. In social debates, new technology is sometimes met with technological optimism or with fear.<sup>70,71,72</sup> Both dynamics can be seen in the AI debate.<sup>73</sup> For a factual assessment of the issue, which should be the basis for resulting actions and measures, a balanced view that allows for complexity and ambiguity is recommended. It is precisely in dealing with technology that a differentiated view is called for, as technology is, in the end, simply a set of tools used by people.

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<sup>67</sup> Hummel, T. (2021, Aug. 24). Messengerdienst Telegram: Darknet für die Hosentasche. Deutschlandfunkkultur.de. <https://www.deutschlandfunkkultur.de/messengerdienst-telegram-darknet-fuer-die-hosentasche-100.html>

<sup>68</sup> Kremp, M. (2023, Feb. 1). Kostenloses Tool soll KI-generierte Texte erkennen helfen. Medium. <https://www.spiegel.de/netzwelt/apps/chatgpt-kostenloses-tool-soll-ki-generierte-texte-erkennen-helfen-a-b8a8e596-9adf-44de-bfb0-e736a1416b6e>

<sup>69</sup> Kreißel, P. (2023, March 20). Wie Chat-GPT euch beim Faktenchecken helfen kann. Volksverpetzer.de. <https://www.volksverpetzer.de/aktuelles/chat-gpt-faktenchecken-helfen/>

<sup>70</sup> Kempkens, S. (2013, Aug. 3). Woher kommt die Angst vor Technik?: „Wir sind bequeme, faule Wesen“. Taz.de. <https://taz.de/Woher-kommt-die-Angst-vor-Technik!/5061984/>

<sup>71</sup> DerStandard (2016, May 22). Technikfortschritt: Angst versus Hype in der Digitalisierungsdebatte. DerStandard.at. <https://www.derstandard.at/story/2000037435521/digitalisierung-angst-versus-hype>

<sup>72</sup> Moradbakht, L. (2022, Nov. 20) Ist unsere Angst vor Künstlicher Intelligenz (un)begründet und was können wir dagegen tun?. In-Mind. <https://de.in-mind.org/blog/post/ist-unsere-angst-vor-kuenstlicher-intelligenz-unbegrueudet-und-was-koennen-wir-dagegen-tun>

<sup>73</sup> Zurcher, A. (2023, March 16). AI: How 'freaked out' should we be? BBC.com. <https://www.bbc.com/news/world-us-canada-64967627>

## Disinformation as a social science issue

A social science perspective on disinformation addresses the role of social, political, and cultural factors in the spread and maintenance of disinformation. This perspective views disinformation not only as a technical problem, but as a social phenomenon influenced by human behaviors, attitudes, and beliefs.

The social science perspective examines how disinformation is disseminated in different contexts, such as political campaigns, social media, or traditional media. It also looks at who is affected by disinformation, including specific populations or political orientations. Another focus is on the impact of disinformation on society, such as trust in institutions and political stability. Social scientists also examine which measures are most effective in combating disinformation and which policies or institutional frameworks are necessary to ensure effective combating of disinformation.

**Disinformation takes place in a historical and cultural context.** Historical or cultural studies approaches help to better understand the long-term entrenchment of disinformation and propaganda. For example, in Russia, the concept of "Russki Mir", the "Russian World", plays a central role in Russian imperialist foreign policy, but is hardly discussed in society. "The idea of a unity of culture and army, of state and language, of national identity and citizenship" is the doctrine, writes journalist Ilya Budraitskis: "In the last two decades it has been consistently pursued by the Kremlin until it finally became a key element denying an entire people its right to exist and justifying a war of aggression."<sup>74</sup> An example of disinformation related to "Russki Mir" is the propaganda spread during the war in Ukraine. Russia used disinformation to justify Russia's annexation of Crimea and to portray the Ukrainian government as fascist and anti-Russian. The concept can also be used to manipulate public opinion in other countries and influence political decisions in order to strengthen Russia's influence in the region. Ukrainian political scientist Mykola Davydiuk describes the "Russian World" approach as dangerous, in part because "it spreads through hybrid methods, first setting ideological precedents that later cause real physical damage."<sup>75</sup> An understanding of this concept makes it possible to place disinformation and propaganda campaigns in a sociopolitical framework and not as a mere literacy or technology problem.



Figure 9: Exemplary headlines on disinformation from a social science perspective. Translation:

Psychology: Experiments to combat disinformation

Russian dominance in Ukraine: Putin's concept of the "Russian World" as justification for the war

CeMAS: An increasing number of Germans agree with Russian propaganda according to study

<sup>74</sup> Budraitskis, I. (2023, May 26). Geburt und Tod der Russischen Welt. Decoder. <https://www.dekoder.org/de/article/russische-welt-konzept-geschichte-untergang>

<sup>75</sup> Davydiuk, M. (2021). Wie funktioniert Putins Propaganda? Anmerkungen zum Informationskrieg des Kremls. ibidem-Verlag.

**Successful containment of disinformation requires culturally- and context-sensitive measures.** However, interventions against disinformation are often not developed and researched in a context-sensitive manner. A different context can lead to interventions having different levels of effectiveness. For example, the success of correcting misinformation may depend on the social status of the counterpart. If, for example, a younger person corrects an older person, this can be perceived as problematic depending on the respective norms. Cultural differences also play a role.<sup>76</sup> Much of the intervention is conducted with U.S. samples. Studies from the Global South, on the other hand, are currently still a rarity, although disinformation as a social problem is clearly evident there as well.<sup>77</sup>

**The psychological perspective strengthens individuals and communities.** While a historical or cultural studies perspective can provide insights into social embeddedness, psychological approaches offer deeper insights into individual vulnerabilities to disinformation. Psychological findings on disinformation show that people are susceptible to disinformation and that it can be difficult to correct false information once it is ingrained in people's minds. For example, people tend to select and interpret information that confirms their existing beliefs and biases. This can lead them to prefer and believe false information (*confirmation bias*). Emotional reactions can also influence people's thinking and judgment. If a false piece of information triggers strong emotions such as anger, fear, or joy, it is more likely to be accepted as true.

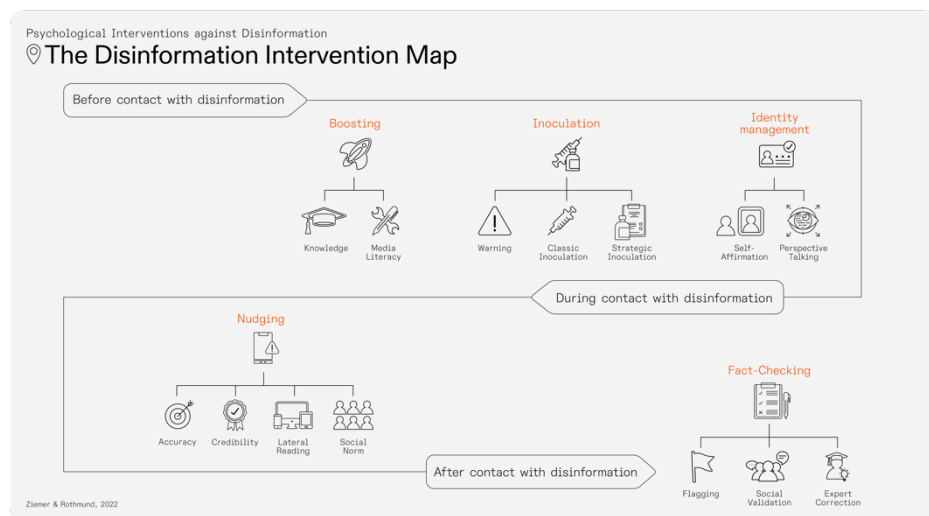


Figure 10: Disinformation Intervention Map - Overview of psychological interventions against disinformation (Ziemer, 2023).

Studies of cognitive biases and other psychological influences not only serve to increase knowledge, but can also be used to increase social resilience. A large proportion do not see the problem in themselves: According to a survey by Reset. and pollytix, 74 percent of respondents believed they were able to recognize disinformation.<sup>78</sup> When people are aware of their own vulnerability, they are less likely

<sup>76</sup> Wasserman, H. & Madrid-Morales, D. (2022). Disinformation in the Global South. John Wiley & Sons Incorporated.

<sup>77</sup> Ziemer, C. (2023). Psychologische Interventionen gegen Desinformation. <https://cemas.io/blog/psychologische-intervention/>

<sup>78</sup> Reset. & pollytix. (2021). Disinformation in Social Media. Retrieved June 12, 2023, from [https://www.reset.tech/documents/210811\\_Reset\\_pollytix\\_Desinformation\\_EN.pdf](https://www.reset.tech/documents/210811_Reset_pollytix_Desinformation_EN.pdf)

to fall prey to false content. Nevertheless, there are also research gaps here, such as approaches to identity management, which remain to be filled.

**For meaningful interventions, it is essential to know the extent to which people agree with propaganda and disinformation narratives on an ongoing basis.** In addition to scientific studies, opinion polls can also help to gain a better picture of attitudes toward disinformation in the population and the prevalence of certain narratives.<sup>79</sup> Through this evidence-based approach, it is possible to gain a deeper knowledge of the prevalence in social subgroups and recognize potential increases in agreement with propaganda. Surveys can thus also be a form of early warning system, helping to identify the "successes" of disinformation campaigns at an early stage and to take countermeasures. However, the limitations of surveys should be considered. Nevertheless, long-term monitoring through representative surveys should be part of the gold standard in dealing with disinformation and misinformation.

**Promote evidence-based approaches - including on the impact of disinformation.** It is often difficult for researchers to prove whether content is misinformation without harmful intent or part of a (directly or indirectly) state-led disinformation campaign. In part, disinformation campaigns are also driven by economic rather than political interests, but can still benefit the interests of authoritarian states. At the same time, there is also a lack of a perspective that is focused not just on dissemination, but more on impact and reach. " Instead, discussion of pro-Russian disinformation tends to implicitly assume that its reach is diffuse and pervasive. This lack of knowledge is paradoxical, given that an estimate of the reach would be essential in accounting for its political and societal consequences," write political scientists Frederik Hjorth and Rebecca Adler-Nissen.<sup>80</sup> Evidence-based evaluations are important to understand which approaches are useful and effective in the long term not just for outreach, but also for potential interventions.

Even these approaches cannot solve the problem of disinformation on their own. Social science approaches, however, help with analysis, can evaluate the effectiveness of interventions, or can demonstrate historical anchoring. An effective strategy combines this knowledge with other ways of working, such as regulations of the digital space. Overall, however, the social science perspective on disinformation is important for developing a comprehensive understanding of how disinformation is spread in society, what its effects are, and how it can be combated. Social scientists can, for example, propose political measures and regulations to minimize the influence of disinformation on democracy or make recommendations for strengthening citizens' media literacy. In this way, society and political decision-makers are able to go beyond the technological perspective to better understand the contexts in which disinformation or propaganda is spread.

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<sup>79</sup> Lamberty, P., Heuer, C. & Holnburger, J. (2022). Belastungsprobe für die Demokratie: Pro-russische Verschwörungserzählungen und Glaube an Desinformation in der Gesellschaft. <https://cemas.io/publikationen/belastungsprobe-fuer-die-demokratie/>

<sup>80</sup> Hjorth, F. G., & Adler-Nissen, R. (2019). Ideological Asymmetry in the Reach of Pro-Russian Digital Disinformation to United States Audiences. *Journal of Communication*, 69(2), 168-192. <https://doi.org/10.1093/joc/jqz006>

## Disinformation as a Challenge for Democracy

In a democratic society, it is important that citizens can make informed decisions and that political discussions are based on facts and truth. Disinformation can undermine these foundations of democracy by affecting perceptions and trust in the truth. It is an attack on the very essence of democracy. That is why it is of central importance to also consider the containment of disinformation from a democratic perspective.

**Disinformation as a repeated disruptive influence in elections.** Disinformation also becomes dangerous in connection with elections. When disinformation campaigns are targeted to influence voters, it can undermine trust in democratic institutions and skew election results in a particular direction.<sup>81</sup> Journalistic investigative research shows that companies are acting globally to target and manipulate elections on others' behalf.<sup>82</sup>

**Pay attention to the social anchoring of disinformation.** Not all social groups are equally susceptible to attempts to influence them by different actors. Disinformation about vaccinations is believed above all by those whose trust in medicine and science is already low. In Germany, the rates of agreement were higher among AfD voters.<sup>83</sup> This finding of stronger agreement among voters for far-right or right-wing populist parties is also evident in other countries. Various scholars and studies indicated that during the COVID-19 pandemic, there was a strong correlation between political affiliation and belief in misinformation.<sup>84</sup> This was certainly also reinforced by the fact that right-wing politicians in particular became multipliers of misinformation themselves. Pro-Russian propaganda also meets with varying degrees of approval depending on party preference. AfD voters are particularly likely to agree with conspiracy narratives about the Russian war of aggression on Ukraine. The



Figure 11: Exemplary headlines on disinformation from a democracy-related perspective. Translation:

False information, false reports, false balance: What influence does disinformation have on elections?

Podium discussion on Russian disinformation: "Trust is the central good of our democracy"

Background: Disinformation narratives: "Fake news!"

<sup>81</sup> Tenove, C. (2020). Protecting Democracy from Disinformation: Normative Threats and Policy Responses. *The International Journal of Press/Politics*, 25(3), 517-537. <https://doi.org/10.1177/1940161220918740>

<sup>82</sup> Stark, H. & Zimmermann, Fr. (2023, Feb. 16). Cambridge Analytica und die israelischen Hacker. *Zeit.de*. <https://www.zeit.de/politik/ausland/2023-02/team-jorge-cambridge-analytica-desinformation-story-killers>

<sup>83</sup> Lamberty, P., Heuer, C. & Holnbürger, J. (2022, November 2). Belastungsprobe für die Demokratie: Pro-russische Verschwörungserzählungen und Glaube an Desinformation in der Gesellschaft. <https://cemas.io/publikationen/belastungsprobe-fuer-die-demokratie>.

<sup>84</sup> Malik, A., Bashir, F., & Mahmood, K. (2023). Antecedents and Consequences of Misinformation Sharing Behavior among Adults on Social Media during COVID-19. *SAGE open*, 13(1), 21582440221147022. <https://doi.org/10.1177/21582440221147022>

second highest rates of agreement for all pro-Russian conspiracy narratives in Germany were observed among voters of Die Linke.<sup>85</sup>

### A global problem with local roots.

Discussions about how to deal with misinformation and disinformation often tend to take place at the national or global level. The local component is often neglected, both in terms of prevalence and in terms of possible interventions. At the same time, the local anchoring of disinformation is a phenomenon that can be increasingly observed in many societies around the world. The local area is the level that people experience most directly in their everyday lives and in which they also experience direct political self-efficacy. False content online does not remain on the internet but is passed on via digital channels such as WhatsApp or when talking with a neighbor over the fence. In addition, there is misinformation and disinformation with content-regional references. Misinformation can be found in local Facebook groups as well as in local TV stations in Saxony, which were used for Chinese propaganda. During the height of the COVID19 pandemic, flyers with false content about vaccination were dropped in mailboxes or displayed in institutions. The local information ecosystem also needs resilience against the spread of misinformation. Currently, however, a contrary trend is emerging in many cases. The lack of local media has put communities in an extremely vulnerable position. Reliable sources of local information are scarce, while access to social media encourages the spread of misinformation. As a result of the disappearance of local news sources, users are increasingly dependent on incomplete and possibly misleading sources of information to fill the vacuum that has been created.<sup>86</sup>

**Disinformation reinforces "bogeymen" and can become a physical danger.** In disinformation campaigns, marginalized groups and individuals who are a thorn in the side of authoritarian groups are repeatedly tagged as public enemies or "bogeymen". This means that disinformation can also become a physical danger. Russian campaigns, for example, aim to stigmatize Ukrainian refugees and thus diminish their support in society.<sup>87</sup> The press is also repeatedly the focus of such campaigns. According to a survey by the NGO Committee to Protect Journalists, a quarter of journalists killed outside crisis zones between 2017 and 2022 were previously victims of disinformation campaigns or threats. The "World Press Freedom Index 2023" explicitly identifies the threat to journalism from fake content: "In 118 countries [...] of

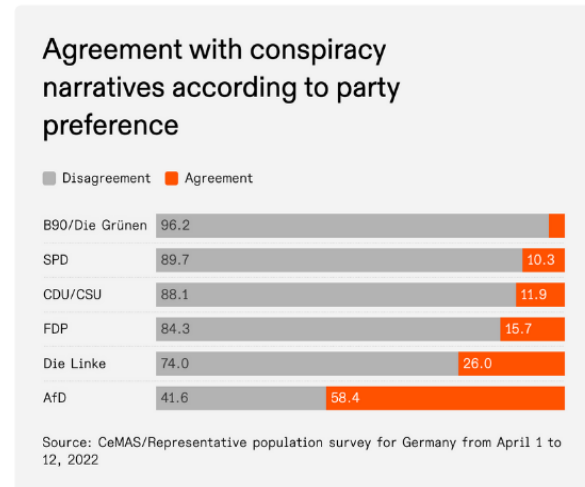


Figure 12: Agreement with conspiracy narratives about the Russian war of aggression according to party preference (April 2022 CeMAS survey).

<sup>85</sup> Lamberty, P., Heuer, C. & Holnburger, J. (2022). Belastungsprobe für die Demokratie: Pro-russische Verschwörungserzählungen und Glaube an Desinformation in der Gesellschaft. <https://cemas.io/publikationen/belastungsprobe-fuer-die-demokratie/>

<sup>86</sup> Jerónimo, P., & Esparza, M. S. (2022). Disinformation at a Local Level: An Emerging Discussion. *Publications*, 10(2), 15. MDPI Inc. Retrieved from: <http://dx.doi.org/10.3390/publications10020015>

<sup>87</sup> Strategic Communications, Task Forces and Information Analysis (STRAT.2). (2023). 1st EEAS Report on Foreign Information Manipulation and Interference Threats. <https://euvsdisinfo.eu/uploads/2023/02/EEAS-ThreatReport-February2023-02.pdf>

the 180 countries evaluated by the Index, most of the Index questionnaire's respondents reported that political actors in their countries were often or systematically involved in massive disinformation or propaganda campaigns."<sup>88</sup> The threat of disinformation to a free press is, in turn, a threat to a democratic society.

Overall, it can be stated that interventions aimed at strengthening democracy tend to be indirect approaches in the fight against disinformation. As a result, they are more likely to be long-term and less suited to stop the spread of individual campaigns. It is also more difficult to scientifically validate the success of these interventions due to their indirect mode of action. Nevertheless, a resilient society and a strong democracy is an important protective factor against the success of disinformation.

## Example of the integrated model in use

To illustrate the practical application of the integrative model, it is suitable to look at an exemplary disinformation narrative through the logic of the model and to compile possible countermeasures from the five perspectives.

To this end, the dissemination of disinformation will be mapped as a communication process.<sup>89</sup>



Figure 13: Disinformation as a communication process

Dissemination starts with originators who have a specific goal. To achieve this goal, a narrative is formulated, which is disseminated and thus reaches recipients. The individual recipients are part of a society.<sup>90</sup>

A current example from the realm of pro-Russian propaganda is the narrative that Ukrainian refugees are supposedly ungrateful or dangerous.<sup>91</sup> It manifests itself in many individual posts that falsely claim, for example, that Ukrainian refugees set fire to the house of their hosts or exploit the German welfare system:

<sup>88</sup> Reporters without Borders (2023). 2023 World Press Freedom Index - journalism threatened by fake content industry. [https://rsf.org/en/2023-world-press-freedom-index-journalism-threatened-fake-content-industry?data\\_type=general&year=2023](https://rsf.org/en/2023-world-press-freedom-index-journalism-threatened-fake-content-industry?data_type=general&year=2023)

<sup>89</sup> Based on the value chain of disinformation of the *Kompetenznetzwerk gegen Hass im Netz*: <https://kompetenznetzwerk-hass-im-netz.de/infografik-desinformation/>

<sup>90</sup> In this simplified communication process model, the targeted step includes the "Plan" and "Prepare" phases of the DISARM model for standardized disinformation campaign detection, while the "Execute" phase is absorbed into the Dissemination step.

<sup>91</sup> Lamberty, P., Frühwirth, L. (2023). Pro-Russian Disinformation and Propaganda in Germany: Russia's full-scale Invasion in Ukraine <https://cemas.io/en/publications/pro-russian-disinformation-and-propaganda-in-germany/>

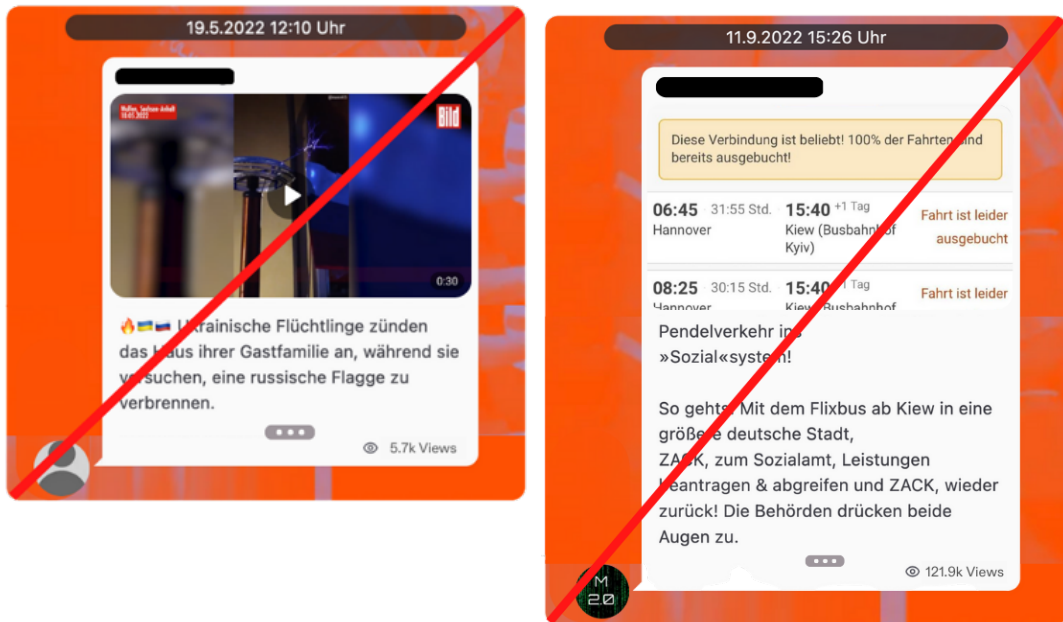


Figure 14: Examples of individual posts conveying the narrative of allegedly dangerous or ungrateful Ukrainian refugees.

Left: False claim of Ukrainian refugees supposedly setting their German hosts' house on fire after attempting to burn a Russian flag.

Right: False claim insinuating Ukrainian refugees come to Germany to collect benefits and return to Ukraine by bus

In the form of the communication model, the schematic flow of this narrative looks as follows:



Figure 15: Exemplary representation of the spread of disinformation as a communication process

Before deciding on countermeasures for such a narrative, it is advisable to conduct an upstream test for necessity. Here, the five perspectives of the integrative model already provide important insights. If we look at the example narrative from the five perspectives, we get the following insights:



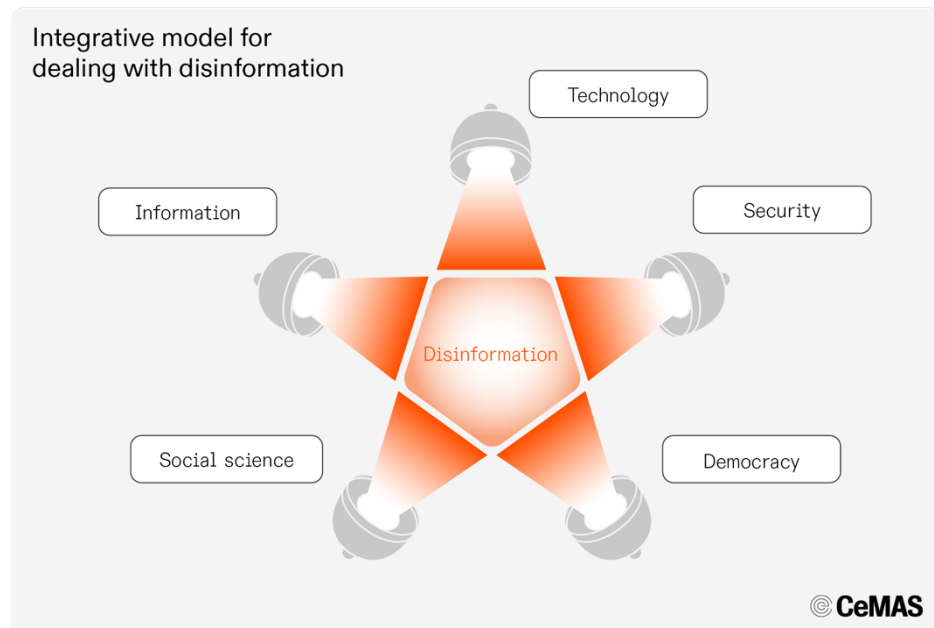


Figure 16: Integrative model for dealing with disinformation

1. **Information perspective:** The narrative is demonstrably false.<sup>92</sup>
2. **Social science perspective:** It ties in with already-existing resentments against refugees,<sup>93</sup> which speaks to a higher potential for emotionalization and escalation.
3. **Security perspective:** It is likely that spreading the narrative will promote racism and hatred against Ukrainian refugees and attacks could increase.<sup>94</sup>
4. **Technology perspective:** Due to the potential for outrage, we can expect increased distribution of this content on social media - beyond individual platforms.<sup>95</sup>
5. **Democracy-related perspective:** In the long term, the narrative contributes to background noise that generates distrust in democratic institutions and promotes hateful attitudes.

According to this analysis, which incorporates the various perspectives on dealing with disinformation, it can be assumed that curbing the narrative under consideration would be desirable. Now, the integrative model for dealing with disinformation can also be used to derive measures by applying perspective-typical measures to the full breadth of the communication process:

<sup>92</sup> Walter, J.D. (2023, Feb. 16). Fact check: How propaganda denigrates Ukrainian refugees dw.com. <https://www.dw.com/en/fact-check-how-propaganda-denigrates-ukrainian-refugees/a-64731408>

<sup>93</sup> Friedrich Ebert Stiftung (2021). Die geforderte Mitte (S. 187). <https://www.fes.de/index.php?eID=dump-File&t=f&f=78925&token=eb588a6bb6d9b528b8f13b53c5f3642cf896db55>

<sup>94</sup> Litschko, K. (2023, March 2). Mehr Angriffe auf Flüchtlingsunterkünfte: Der Hass ist wieder da. <https://taz.de/Mehr-Angriffe-auf-Fluechtlingsunterkuenfte/15919515/>

<sup>95</sup> Tsugawa, S. & Ohsaki, H. (2015, Nov.). Negative Messages Spread Rapidly and Widely on Social Media. COSN '15: Proceedings of the 2015 ACM on Conference on Online Social Networks, 1, 151-160. <https://dl.acm.org/doi/abs/10.1145/2817946.2817962>

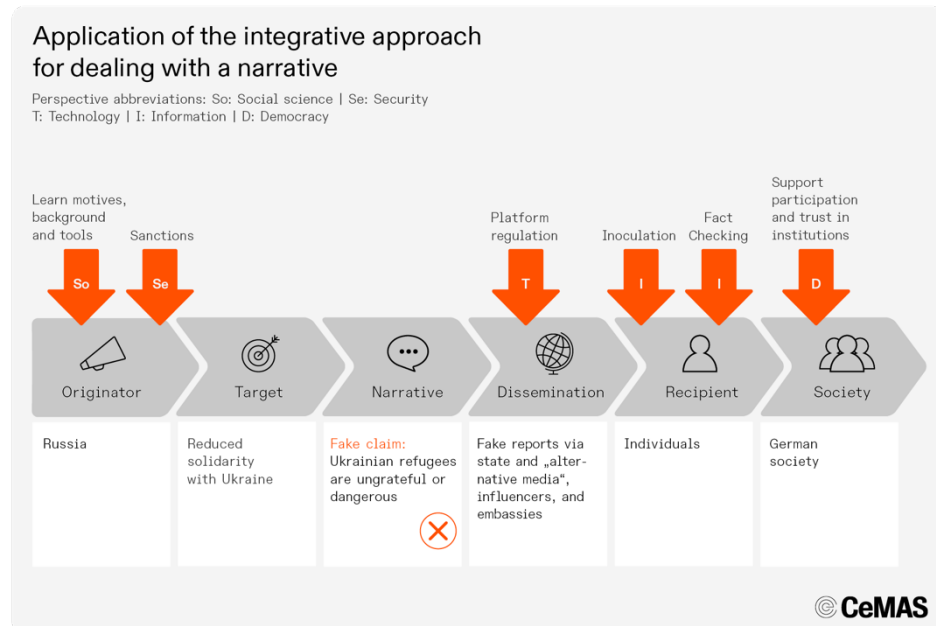


Figure 17: Integrated application of perspective-typical measures to contain an exemplary disinformation narrative.

In the present example, the social science perspective could provide insights into the motives and backgrounds of the originator as well as the recipient and their society. From a security perspective, the originator can be subject to sanctions, and a criminal investigation of individual contributions is also conceivable. From a technological point of view, influence could be exerted on social media in the form of platform regulation to curb the spread of individual posts. Recipients can be preventively made aware of manipulation mechanisms and reactively educated about fact checks (information perspective). For a long-term protective effect from the democracy perspective, opportunities for participation and confidence-building measures vis-à-vis democratic institutions could be created. Accordingly, there are several entry points at different points in the process that, when combined, should increase the likelihood of effective containment of the narrative. The measures shown are examples of the various options for action per perspective. To illustrate the options for action: The DISARM framework currently lists 140 potential countermeasures, although not all of them are classified as recommended.<sup>96</sup>

The integrated view of the disinformation phenomenon allows for more comprehensive insights from the different perspectives and combined protection and containment options that can more effectively counter disinformation narratives and campaigns. In addition, it reveals where further weaknesses lie in the intervention measures.

<sup>96</sup> DISARM Foundation. Counters. <https://disarmframework.herokuapp.com/counter/>

## Conclusion and recommendations

Disinformation is not uniquely a problem of modern times, but it is a fundamental challenge for contemporary democracies. Around the world, democracy is under attack by populist and anti-democratic actors who seek to expand their claims to power, usually at the expense of minorities and other perceived enemies who advocate for a free world. According to the report "Freedom in the World 2023", global freedom has declined for the 17th consecutive year. But the report also makes clear that societies are not simply exposed to these developments: "While authoritarians remain extremely dangerous, they are not unbeatable. The year's events showed that autocrats are far from infallible, and their errors provide openings for democratic forces," the report says.<sup>97</sup>

United forces are needed to curb authoritarian tendencies. This also means that disinformation must be seriously understood as a problem and a danger, and not just addressed on an ad hoc basis. Rather, it should be understood as a constant stress factor for liberal democracies. In addition, there is no single approach that successfully combats disinformation. An exchange between countries and different actors is needed in order to develop and establish gold standards.

Various research has shown that Russia, for example, has allegedly developed long-term strategies to destabilize democratic societies. Journalists published research on an internal Kremlin strategy paper that laid out detailed plans for a creeping annexation of Belarus by political, economic, and military means by 2030.<sup>98</sup> There was also a strategy of destabilization for Moldova and the Baltics<sup>99</sup> to divide the countries, turn them against the West and strengthen pro-Russian voices. Here, too, long-term plans have been developed.<sup>100</sup> According to the *Washington Post*, there were similar plans for Germany to actively work to build a "cross-front" in order to undermine support for Ukraine.<sup>101</sup> Democracies in general and Germany in particular are at a disadvantage. Funding cycles for projects to strengthen democracy are often short-term, lasting only a few years, and thus cannot have the impact that would truly be necessary. Although the German government currently has a working group to combat disinformation, it has not institutionalized the fight in the form of a long-term authority or agency, as is already the case in other countries. Especially considering how the global situation is currently changing, it would be urgent to establish structures here in the long term.

But disinformation is not a problem that governments can and should solve on their own. Recent years have shown that authoritarian states like to use the issue complex for themselves in order to suppress unpopular opinions. For example, in 2022, the Turkish parliament passed a law providing for prison sentences for disseminating "false or misleading news". Similar discussions are also taking place in Iran about a law against alleged "fake news". Therefore, democracies should strongly involve civil

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<sup>97</sup> Gorokhovskaia, Y., Shabaz, A. & Slipowitz, A. (2023). Freedom in the World 2023.

[https://freedomhouse.org/sites/default/files/2023-03/FIW\\_World\\_2023\\_DigitalPDF.pdf](https://freedomhouse.org/sites/default/files/2023-03/FIW_World_2023_DigitalPDF.pdf)

<sup>98</sup> Flade, F., Frey, L., & Bewarder, M. (2023, Feb. 21). Russlands Pläne: Will sich der Kreml Belarus einverleiben?. Tagesschau.de. <https://www.tagesschau.de/investigativ/ndr-wdr/russland-belarus-kreml-papier-101.html>

<sup>99</sup> Bewarder, M., Flade, F., & Milling, P. (2023, Apr. 26). Kreml-Papier: Russlands Strategie für das Baltikum. Tagesschau.de. <https://www.tagesschau.de/investigativ/ndr-wdr/russland-kreml-strategiepapier-baltikum-nato-100.html>

<sup>100</sup> Bewarder, M. & Milling, P. (2023, March 15). Strategiepapier Putins Plan für Moldau. Tagesschau.de. <https://www.tagesschau.de/investigativ/ndr-wdr/russland-kreml-strategiepapier-moldau-101.html>

<sup>101</sup> Hesse, S. (2023, Apr. 21). Bericht der "Washington Post" Kreml-Plan für deutsche "Querfront"?. Tagesschau.de. <https://www.tagesschau.de/ausland/amerika/washington-post-russland-deutschland-querfront-101.html>

society and academia in the fight against disinformation, encourage engagement, and reflect on their own role. People who are open to propaganda often show a distrust of the state and its institutions. This is another reason why the state is often unsuitable as a communicator. What is needed here are community stakeholders who enjoy the trust of the respective community.

Especially in view of future crises, a systematic and integrated approach to combating disinformation is crucial. Disasters, crises and wars will be accompanied by an increase in misinformation, disinformation and conspiracy narratives. The climate crisis and associated natural disasters will also play a role here as the past has already shown. In the 2021 German flood disaster, we could see that both misinformation and disinformation posed an additional challenge. Right-wing extremists not only mobilized in the Ahr valley, but the NPD also tried to exploit the catastrophic situation for its own purposes during the Oder floods. The 2023 earthquake in Turkey and Syria was accompanied by political campaigns and propaganda. Rumors of an alleged earthquake in Germany also created uncertainty and tied up resources.

Societal resilience against disinformation should therefore not be viewed from only one perspective. Only through the interplay of multi-faceted perspectives can all aspects of the problem be considered and meaningful approaches developed. Especially with respect to the target groups to be addressed, it is essential to include all affected groups. This includes reaching out to people in all age groups. Campaigns should also not only refer to the digital space, but include the analog world. After all, information spreads wherever people are and wherever they communicate with each other.

For a successful strategy, it is therefore important to take the threat of misinformation and disinformation seriously and to anchor this in the strategy process. This also includes clear responsibilities and an appropriate level of resources. Sweden is a role model in this respect with its newly established Psychological Defense Authority. At the same time, the containment of disinformation requires the sustained promotion of scientific, journalistic and civil society engagement with disinformation. Precisely because the state's debate on truth and facts is a sensitive issue, strengthening democracy is a fundamental pillar in the fight against disinformation.