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POLICY BRIEF

Stemming the Tide of Disinformation in Public Health

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Abstract

Context: Disinformation, or incorrect information that is intended to mislead, was pronounced during the COVID pandemic. Disinformation that steers away from life-saving practices or toward life-threatening practices can be fatal. The European Union has in place policies and offices to combat disinformation. However, they lack the full mandate and clarity of systems to meet the needs for quick and effective responses.

Policy Options: Means to enhance the effectiveness of existing policies include [1] clarifying a rapid response framework, [2] enhancing media literacy in the public, [3] inoculating the public against anticipated disinformation, and [4] engendering public trust through coordinated and consistent communication.

Recommendations: Among these four, options 2 and 3 were deemed the best opportunities for quick action, early successes, and the fewest institutional or political hurdles. We recommend [a] that the EU Commission establishes an EU Media Agency with a solid governance structure to support innovative media literacy undertakings and successful implementation; [b] that the existing Media Literacy Expert Group create a media literacy program implementation framework; and [c] that existing EU initiatives on disinformation debunking, media literacy, and inoculation strategies be merged into a single Misinformation Community within the European Institute of Innovation and Technology [EIT].

Keywords: communication policy, COVID pandemic, disinformation, public health emergencies

Introduction

Large-scale protests, and public health professionals receiving threats and refusal of adequate therapies: the infodemic, which was rampant during the COVID-19 pandemic, emphasized the urgency to tackle the negative effects of disinformation (1). A recent umbrella review by the World Health Organization [WHO] summarizes the undermining effects of infodemics and health disinformation on public health policies. Disinformation has led to misinterpretation of scientific evidence, opinion polarization, increased spread of fear and panic as well as decreased credibility of existing evidence and information (2). It undermines trust in governmental institutions (3), lowering vaccine acceptance and adherence to public health regulations such as mask-wearing (4). Disinformation is not just incorrect information, known as misinformation, but is communicated with the intent to mislead (2).

Via social media, disinformation is fast and ubiquitous. In contrast to media through television, radio or print which are filtered through editors and have a delayed release, internet-based social media are often

unfiltered and instantaneous. Moreover, disinformation can be more titillating than scientific facts. A study on Twitter found that fake news tweets reached between 1 000 and 100,000 users through subscriptions and sharing, while factual news usually reached no more than 1,000 people (5, 6). The wide dissemination of fake news makes it profitable. Advertisers are more likely to invest in a source with a larger readership. More ads on a site generate more ad clicks, which in turn can lead to more ads and income for the site owner (7).

Possible explanations include the reluctance of governments to communicate decisively in crises of missing and uncertain information, leaving room for misinformation to spread while the population demands reliable answers (8). Especially unclear and sometimes contrary communication by governments increases uncertainty (9) and the information overload resulting from the infodemic made it difficult to filter meaningful and evidence-based information out of the mass of information (10).

Disinformation affects nearly every portfolio of the EU Commission Groups, since it is not only a threat to public health, but also

the environment and democracy (11). Therefore, the EU Commission needs to take a more prominent role in leading EU efforts in encountering this ongoing threat.

Context

Current EU policy

To counteract the harmful effects of disinformation, the European Union [EU] launched the “Action Plan against Disinformation” in 2018 (12). The plan was accompanied by the “Code of Practice on Disinformation” non-binding tool that was signed by online platforms such as Meta, Google, Twitter and Mozilla. In response to the COVID pandemic, the Code was updated in 2022 to the “Strengthened Code of Practice on Disinformation.” The effect of the Code is blunted by the fact that signatories can decide which commitments they agree to, and there are no means to verify self-reports of progress (13). Bound by law, EU efforts need to balance the fight against disinformation with the fundamental right to freedom of expression and open internet. Furthermore, when it comes to EU ambitions to control the spread of disinformation, challenges remain in legal leeway, establishing governance structures, accountability networks and overcoming procedural shortcomings (14).

In March 2019, as COVID was emerging, the European External Action Service [EEAS] launched an online Rapid Alert System [RAS], to coordinate and share responses to disinformation inside and outside the EU (12). However, only a few EU Member States actively engaged on the website and there was no means of triggering an alert to EU countries about a particular disinformation claim (13, 15). These EU strategies are not sufficient to mitigate the effects of media that are instantaneous, ubiquitous, and profitable. Especially, the lack of binding regulations, clear terminology and active engagement of all EU Member States elucidate important shortcomings of the EU strategy (13). Based on the umbrella review by Borges do Nascimento, et al. the spread of misinformation should be addressed by “[...] developing legal policies, creating and promoting awareness campaigns, improving health-related content in mass media and increasing people’s digital and health literacy” (2).

The Audiovisual Media Services Directive [AVMSD], revised in 2018, strengthens the role of enhancing media literacy. Article 33a of this directive requires Member States to promote measures that develop media literacy skills (16). In 2016, the European Commission installed the

European Expert Group on Media Literacy [MLEG]. The mandate of the MLEG is focused on exploring good practices in the field of media literacy; facilitating networking between different stakeholders and exploring ways of coordinating EU policies, support programs and media literacy initiatives (17). However, the effectiveness of these programs highly depends on their implementation potential (18, 19). The European Audiovisual Observatory provides snapshots of media literacy efforts throughout the EU, but the most recent study was conducted in 2016 (20). Furthermore, the broad-scale implementation of the Media Literacy Week innovations awards winners in 2019 (Media mashup, HTML heroes, Media mistakes) is not at hand. The EU Council acknowledges that more has to be done, and better implementation has to be supported. However, it does not state how to go about it(21).

Inoculation theory

The continuous influx of disinformation is difficult to retract and correct once they have taken root in human memory (22). The inoculation theory can be compared with vaccination: exposing people to weakened doses of challenging information leads to immunity to adopting misinformation (23). Within the context of health disinformation, issue-based inoculations have shown to be more effective than post-hoc corrections at increasing people's intentions to, for example, vaccinate children (24). Inoculation theory relies on two main

mechanisms. The first are forewarnings or threats ("be aware of...") to promote alertness and resistance. The second is pre-emptive refutation ("these are arguments against...") to help model the counter-arguing process and provide people with specific content that they can use to refute future persuasive challenges (23, 25). There are different types of interventions, for example, simple texts, infographics, videos and games (e.g. goviralgame.com) that have been proven to be significantly effective (26).

Policy Options

Primary and secondary sources of information were consulted to identify promising strategies to counter disinformation. The strategies were subsequently translated into potential policy options. How they relate to EU policy is visualized in Figure 1. Preventing the actual spread of disinformation would be very effective, but, as stated earlier, has vast limitations by its legal, credibility and procedural challenges. It involves private entities whose cooperation is mostly voluntary. The proposed policy options below are therefore based on existing EU actions (RAS, MLEG) and novel strategies (inoculation theory) countering the negative effects, rather than tackling the spread of disinformation.

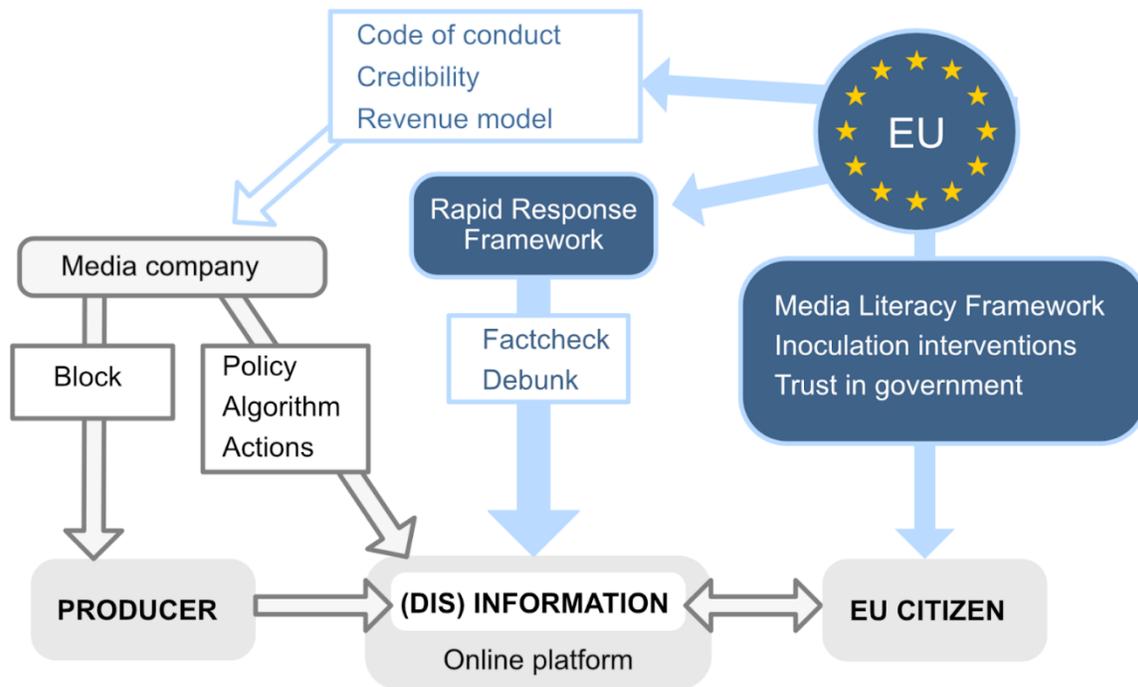


Figure 1 (Authors' figure): Strategies that can affect disinformation exposure to EU citizens. Media companies control posts and producer access and therefore the spread of disinformation. EU efforts aim at cooperation with media companies, limiting the effect of disinformation by actively FactCheck and debunking on platforms and facilitating programs to protect EU citizens against its harmful effects.

Option 1: Clarifying a rapid response framework

Problem addressed: The EEAS launched a RAS to enable common situational awareness of misinformation in all EU Member States and to foster the development of common responses (27). However, the RAS currently lacks the

specificity of processes and authority, resulting in only a few EU Member States sharing information through the system.

Action proposed: Give the RAS a mandate to clarify its data policies and lines of authority, along with stakeholder responsibilities. The RAS should define its criteria for assessing evidence and rating

news content credibility. It should also clarify the system's political mandate and legal foundation.

Problem solved: Starting in December 2018, the EU Commission launched its action plan against disinformation, which remains the key pillar of the EU policy. The enhanced specificity of the RAS mandate and process will facilitate the realization of three of the four action plan goals: [1] “improving the capabilities of EU institutions to detect, analyze, and expose disinformation; [2] strengthening coordinated and joint responses to disinformation; [and][3] mobilizing the private sector to tackle disinformation”(12).

Remaining challenges: Identification of disinformation is a task, in which a huge range of actors is involved: Mainstream media and journalists, dedicated institutions, civil society and governmental agencies (28). As the number of stakeholders indicates, there may be issues in coordination of all players involved commonly comes at the cost of effectiveness, and the fact-checking organizations, such as International Fact-Checking Network, the EBU, InViD, CrossCheck and Fatisk, currently lack the resources for funding and professional

workforce(28). Currently, the EU relies solely on the self-regulation of social media platforms. The Digital Service Act is a new EU law designed to regulate online platforms such as Facebook, Twitter and TikTok. Even so, the EU Commission agreed that platforms should be free to choose how they handle disinformation and mitigate its impact(29). This leaves an uncertain legal foundation for all stakeholders.

Option 2: Enhancing media literacy

Problem addressed: The impact of disinformation can be lessened by enhancing the ability of the public to understand how it works and learn how to identify it(19). However, political, financial, and technological barriers are forestalling the broad-scale implementation of media literacy programs.

Action proposed: Introduction of a Media Literacy Program Implementation framework to add an implementation-oriented perspective to the current development-oriented perspective of the EU. The current mandate of the MLEG is more for research than for implementation. They explore effective practices in the field of media literacy, facilitate networking between different stakeholders, and explore

ways of coordinating EU policies(30). Identifying and overcoming barriers in implementing media literacy strategies (e.g. political, financial, technological) should lead to more effective dissemination of these strategies and successful program implementation.

Problem solved: With an implementation framework for EU countries to work from, there will be more and more effective media literacy programs implemented.

Remaining challenges: To move towards an implementation-oriented perspective, the mandate of the MLEG should be evaluated: Does it provide the necessary legal and governmental flexibility to incorporate the formulation and monitoring of implementation strategies? If not, we recommend the EU Commission propose an amendment to this mandate to facilitate implementation actions by the MLEG. Additionally, executing the elements of the framework will require an increase in administrative resources. Moreover, the diversity of educational structures across the EU poses another challenge to implementing media literacy programs effectively, which needs to be considered when evaluating the programs(31). Adaptations specific to Member States may be required,

highlighting the need for continuous (local) stakeholder involvement. A limitation to the effectiveness of the framework is the pace of new social media and technological innovations. What's new today will be outdated tomorrow.

Option 3: Inoculating against disinformation

Problem addressed: Disinformation has an outsized impact on scientific information. The difference can be mitigated by inoculating the public against foreseeable counterstories to scientific evidence. Inoculation is the exposure of people to weakened doses of disinformation, which has been shown to increase “immunity” to disinformation(23, 32).

Action proposed: Create an EU Inoculation Expert Group [IEG] to explore inoculation strategies and facilitate and evaluate interventions. Inoculation interventions are of two main types: [1]forewarnings or threats (“be aware of..”) to promote alertness and resistance, and [2]pre-emptive refutation (“these are arguments against..”) “to help model the counter-arguing process and provide people with specific content that they can use to refute future persuasive challenges”(23, 25). Intervention means include simple texts, infographics, videos

and games (e.g. goviralgame.com) (26). Evaluation should include the advantages and setbacks of various interventions and their scale, effect sizes, and costs.

Problem solved: If done early, inoculation can get ahead of disinformation campaigns through social media, thereby blunting the effects of social media speed.

Remaining challenges: EU governance structures have to be evaluated on their leeway regarding the implementation of inoculation theory-based strategies. Furthermore, introducing a new task force would place yet another burden on the EU administrative resources. Moreover, the effectiveness of inoculation strategies may differ among the various cultures composing the EU. Interventions like games are also subject to trends, which come and go very quickly. Therefore, the inoculation strategies have to be societal context-aware and thus flexibility and a dynamic approach to the ILP are required to be effective(32).

Option 4: Engendering public trust through coordinated and consistent communication

Problem addressed: Time delays in communication, lack of clarity and consistency and overloads of information by

various institutions during crises contribute to a lack of trust in national governments in recent decades(3, 33). Rebuilding public trust in light of crises demands inclusive, targeted approaches to communication and responsiveness to public questions(3, 8).

Action proposed: Establish an EU infodemic communication task force within the EU Public Affairs Committee to develop templates for structured information on strategic communication during times of crisis for Member States. The templates will include recommendations for communication with different target groups, considering their abilities and preferences, i.e. in communication media and their personal biases. An example of this is social media communication, which can significantly contribute to the mutual reinforcement of the dynamic between citizens and institutions and the relationship of trust (8). In addition to the templates, the task force may be involved in monitoring and analysis of social media to identify public concerns and trends of disinformation, as a basis for further communication strategies (i.e. debunking).

Problem solved: These recommendations will allow for overarching, uniform communication that speaks with one voice

and thus reduces information overload. Moreover, this should speed up decision-making on communication, as information is collected in a targeted manner and presented in condensed form in the recommendations. This enables timely access to public information and transparency and accountability of the Member States. Further, it allows for a timely response and is a core building block for building trust, as citizens, alongside evidence, are put at the center of communication (8).

Remaining challenges: The provision of communication does not limit the emergence and spread of disinformation, as it does not include countermeasures on online platforms. In addition, people with low media literacy and people who read with a strong bias may not be reached. Thus, the influence of disinformation, while potentially inhibited, persists and poses a threat to public health.

Recommendations

To select among these four options, we considered the urgency of the matter, existing political momentum, the likelihood of a quick success even if partial, and the relative absence of remaining challenges to

frustrate the implementation of the policy. Based on these criteria, we identified enhancing media literacy and inoculating against disinformation as the two most promising policy options. Inoculation provides a means of anticipating and getting ahead of disinformation. There is political momentum in the European Expert Group on Media Literacy. Initial small-scale programs could demonstrate their effectiveness. And there are no major political impediments to the implementation of these policies. The added value of the recommendations below can be real-time, measured by an increase in the number of programs implemented and the number of (institutions in) Member States involved. The actual exposure of pre-bunking interventions to EU citizens and their effectiveness requires research and an extensive evaluation of the applied strategies.

The first recommendations based on the selected policy options are addressed to the European Commission. They can take action by putting in place an EU Media Agency with a solid governance structure to support innovative undertakings and successful implementation. This Media Agency will bring together the currently highly

fragmented EU organizations and programs, promote more unification of interventions, prevent overlap of efforts and thus lead to more efficient use of EU resources. Furthermore, the EU Commission should appoint an IEG to incorporate inoculation (“pre-bunking”) strategies to prevent the negative effects of disinformation on EU citizens’ public health. Finally, the mandate for the MLEG should be assessed on its potential to be actively involved with the implementation of media literacy programs.

The second recommendation applies to this MLEG of the European Commission. We advise introducing a Media Literacy-program Implementation Framework that promotes the effective implementation of media literacy programs (see Figure 1) elements formulated in the Program Proposal are partially taken from the information items collected by the European Audiovisual Observatory in 2016 (30), complemented by elements that we also consider relevant.

The third and last recommendation is addressed to the EIT.EU-supported initiatives on the development of fact-checking, debunking, media literacy programs and inoculation strategies (e.g. EBU, InViD, CrossCheck, EMDO, HeroS,

SOMA) could be brought together into a specific Disinformation Community within the EIT.

Limitations

Introducing new policy options for a supranational entity like the EU has limitations. Evaluating and, if necessary, adjusting the mandate of the MLEG takes time, but should be done promptly. The financial and administrative resources that will be needed to execute the elements of the framework and run a new task force for inoculation can be a barrier to executing the recommendations.

Other issues involve the diversity within the EU which may limit transferability. This diversity has to be considered when developing and evaluating media literacy programs. Specific adaptations in Member States may be necessary, so a continuous involvement of (local) stakeholders is important. This also accounts for the potential difference in cross-cultural effectiveness of inoculation strategies. The inoculation strategies have to be societal context-aware for every Member State and thus flexibility and a dynamic approach of the IEG are required to be effective.

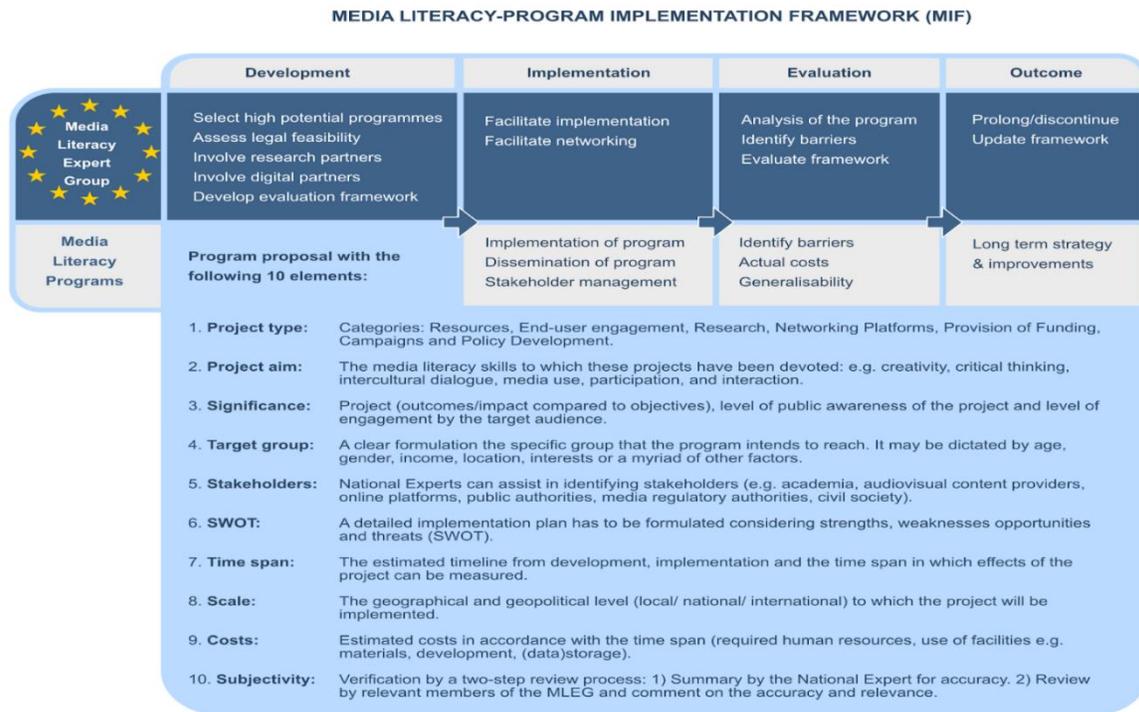


Figure 2 (Author’s Figure): A depiction of the Media Literacy-programme Implementation Framework, showing the means of engagement of the MLEG and media literacy programs in development, implementation, evaluation and the eventual outcome of the program; information obtained from (30).

Finally, a limitation of the effectiveness of media literacy programs and inoculation is the high pace of technological innovations and the emergence of new online media platforms. It can be assumed that the success of an intervention (e.g. a game) is highly affected by its compatibility with popular platforms and trends. What’s new today, will be outdated tomorrow.

Conclusion

The instantaneous, ubiquitous, and profitable spread of disinformation on online media, poses a challenge to public health. Current EU policy strategies lack effectiveness in limiting the harmful effects of disinformation. Preventing the spread of disinformation takes place in an online environment over which the EU has very limited control. Therefore, enhancing media literacy and exploring inoculation efforts in

the public represent fruitful policy options to leverage the EU response to disinformation. The recommended policies provide specific and achievable guidance to get ahead of future infodemics.

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