

Finding truth amidst turmoil: Evidence-based recommendations for fact-checking in times of crisis

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*This project has received funding from the European Union
under Agreement number: INEA/CEF/ICT/A2020/2381738*

Executive summary

Crisis settings may fundamentally change the information landscape, and amplify the threats associated with mis- and disinformation. Although fact-checkers may face similar challenges in routine and crisis times, the context of uncertainty, information overload and fluxing trust levels may exacerbate the challenges they face in crisis times. In this white paper, we aim to map the disinformation landscape in crisis settings, and offer different areas in which fact-checking may be different against the backdrop of turmoil. We formulate concrete suggestions on how fact-checkers may respond to crisis settings. The most important suggestions involve (1) enhanced transparency in the procedures of the selection of dubious statements, the level of uncertainty, and the process of arriving at verdicts on (un)truthfulness; (2) the strengthening of the fact-checking community and collaborations between checkers in close proximity to unfolding crisis events; (3) the development of a handbook with fact-checking practices and infrastructures that anticipate future crisis settings.



Introduction: Mis and Disinformation in times of crisis

Crisis situations create an uncertain information environment which is characterised by an “information vacuum” where there is lack of scientific certainty and adequate high-quality data on a constantly evolving situation (Chou et al., 2021). Misinformation and disinformation may especially be pronounced in times of crisis and high uncertainty (e.g., Hameleers et al., 2020; Van der Meer et al., 2020). In crisis times, there is a large and also immediate need for effective communication about unfolding events among the public (e.g., Thelwall & Stuart, 2007). At the same time, however, the context of uncertainty and the pace of new developments make it extremely difficult for journalists and other knowledge disseminators to respond to this need, and offer the public accurate and validated information quickly. In addition, malicious actors may exploit the context of uncertainty and high information needs by deliberately manipulating information to make it fit their political agendas. Not surprisingly, crisis settings such as the recent COVID-19 pandemic or the Russian war in Ukraine have been associated with an information crisis as well, as illustrated by the term ‘infodemic’ or ‘information war’ often used to describe the informational landscape surrounding these crises (Nielsen et al., 2020; Jankowicz, 2020). Thus, it can be argued that crisis settings compared to routine periods characterised by more rigorous fact-checking, information certainty and lower informational needs, offer a favourable setting for the dissemination of both misinformation and disinformation.

Here, we define misinformation as information that is inaccurate or false without the intention to deceive recipients (e.g., Wardle, 2017). In the crisis context of COVID-19, for example, misinformation may be disseminated as there was no expert consensus at the start of the pandemic: Many aspects of the spread of the virus, its effects, and the effectivity of preventative measures were unknown or surrounded by preliminary evidence and unverified claims. Unwillingly, journalists and other knowledge disseminators such as the WHO may have spread inaccurate information whilst having the intention to inform the public in an accurate and complete way. Disinformation, which we refer to as intentionally false or deceptive information (e.g., Freelon & Wells, 2020) was, for example, motivated by the goal to polarise the electorate or raise cynical attitudes toward the authorities and governing elites. Similar motives could be associated with the spread of disinformation surrounding the Russian invasion of Ukraine. More generally, contexts of war have been associated with information coverage that is far from neutral, and mostly informed by ideological biases and a lack of balance (e.g., Bell, 1998; Hallin, 1985).



War contexts may also offer a vulnerable setting when it comes to misinformation: Access to the armed conflict is often difficult, and direct witnesses of the war may not offer a detached or rational account of unfolding events. At the same time, warring sides may not reveal all their (strategic) information, and may deliberately decontextualize or manipulate information to emphasise their own success or the opposed parties failures.

In this setting, we can conclude that contexts of crisis may be less resilient to mis- and disinformation than routine periods of news coverage. At the same time, the work of fact-checkers may be more challenging in times of crisis for different reasons. Although the same challenges and suggestions for fact-checking in routine periods may apply (see white paper “Making fact-checks work: Evidence-based recommendations for practitioners”, [here](#)), crisis settings amplify the challenges, risks, pressures, and uncertainty of fact-checking. For example, the higher amount of information and the changing nature of unfolding events and evidence creates an overloaded environment to verify information: If so much contradicting evidence on the war or COVID-19 is disseminated, how does one decide which statements need to be checked most urgently? Next to this, as crisis situations typically relate to novel events for which not all factors are known or verifiable, the actual practices of checking statements is more complicated. To offer an overview of the fact-checking landscape in times of crisis, and empower journalists and fact-checkers with some concrete recommendations on fact-checking in crisis times, this white paper aims to offer a practical overview and evidence-driven handbook for corrections in crisis contexts.

Fact-checking in times of crisis

Crisis situations are more conducive to mis- and disinformation than times of peace and stability, and this affects the work of fact-checkers in a number of ways. In this white paper we focus on three changes in the information environment that affect fact-checking in times of crisis and draw on scientific evidence as well as practical experience to offer suggestions for how to address these factors.

Changes in information environment during the crisis

1. Uncertainty, negative emotions and lack of trust

Crisis situations are usually novel and emotionally trying events which disturb day-to-day lives of people and expectations of the future, generating among the public many negative emotions such as anxiety and fear (Jin et al., 2016). Consequently, the uncertain and anxious environment might alter what type of information individuals seek for and for what needs. Research on fact-checking and the consequent correction efforts by



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practitioners rely on the assumption that individuals engage with information in an objective and rational manner (Chou, et al. 2021). However, the act of seeking information during a crisis may not always be driven by rationality alone, but also serves other purposes beyond acquiring knowledge in crisis situations. Hence, this section will discuss how uncertainty and negative emotions affect individuals' information seeking and distribution behaviour in times of crisis.

High uncertainty in the information environment affects the type of information individuals demand. An important cognitive bias that plays a role in crisis situations is a confidence heuristic - the tendency to perceive the level of confidence or certainty with which information is presented as an indication of its accuracy or depth of knowledge (MacFarlane and Rocha, 2020). This bias might disadvantage scientific and credible sources of information in crisis situations, as people are seeking out certainty to alleviate stress and anxious feelings about the present and the future, but the scientific knowledge is limited and incrementally evolving in an unprecedented situation. On the other hand, actors that spread disinformation are not constrained by scientific ethics and professional standards, and can therefore spread their information more boldly (Chou et al, 2021).

Past research has also suggested that false information spreads faster and farther than reliable information. This is partly due to the emotional tone of the content (e.g. surprise, disgust), but the evidence on effect of emotions on persuasiveness of information are mixed (Vosoughi et al., 2018; MacFarlane and Rocha, 2020). Research has shown that more anxious individuals are more open to both accurate information (includes fact checks) and misinformation (Freiling et al. 2021; Weeks, 2015). Individuals who experience feelings of anxiety, anger, or confusion (typical emotions that arise during crises) are both more inclined to look for and share information about the crisis (Jin et al., 2016). This is due to the fact that people seek information that provides a sense of security and empowerment, even if it may be incorrect (Jin et al., 2016). Hence, as crisis situations invoke more negative emotions, individuals can become more susceptible to emotionally loaded but confirming information and misinformation in general.

Some groups or individuals might also be distrusting of science as an institution or the government institution responsible for the crisis response. For example, research has well documented the existence of distrust in the medical system among the communities of colour due to a history of abuse, experiences of everyday discrimination, and the pervasive impact of structural racism in science (e.g. Armstrong et al., 2008). Scientific evidence is also dismissed due to individuals believing in conspiracy theories or for holding xenophobic attitudes. For example, the racial implications of COVID-19



misinformation are evident in the utilisation of stigmatising language like the "Chinese virus" (Dickson, 2020). As people in crisis situations might want to seek explanations or even scapegoats for the ongoing crisis, xenophobic and conspiratorial explanations might have more persuasion power.

Recommendation

As the fact-checking efforts ultimately aim to convey truthful information, the fact checking community should stay truthful to its endeavour and be transparent about the incremental nature of scientific knowledge. Educating the public on the nature of scientific knowledge could make the individuals less impatient with the process of developing evidence but also establish trust. Making the public acknowledge how long it takes to develop reliable information might also make people more suspicious of spurious causal associations promoted by the misinformation agents (MacFarlane and Rocha, 2020). As an example of how this could be carried out in practice, fact checks could involve a message disclosing that this fact check has been done in light of the most recent and reliable information available and display the reasoning and the source of the fact check, as it is done by Nieuwscheckers (Pleijter, 2023). In the same vein, countering the confidence bias, it might be reasonable for fact checkers to refer to research on how malicious actors attempt to use authoritative rhetoric to simplify the truth. Such a warning should, however, be proportional to the threat in order not to prime suspicion to an extreme level. Specifically, it may be worthwhile to point out that certain actors may have more intentions (i.e., higher stakes) to deceive than others - although this clearly does not indicate that they spread disinformation all the time. A concrete suggestion for a warning would be referring to previous fact-checks of dubious claims made by the same actor, and in this way stressing that citizens should be more critical and verify the messages of these actors when they are in doubt.

As people might be in an emotional distress evoked by the crisis situation, efforts in communication that acknowledge and validate individuals' emotions, particularly their fears, while redirecting these feelings towards constructive processing of information can serve as an effective complement to the provision of factual information. As many malicious actors attempt to capitalise on the fears and anxiety of the individuals evoked by the crisis for personal gains, it might also be effective to refer to research explaining strategies of such actors to disseminate mis/disinformation. For example, it might be effective to highlight the techniques used by misinformation agents, such as aiming to capitalise on the emotions, to reduce their effectiveness (Schmid and Betsch, 2019). This so-called inoculation method has been shown not only to work to protect against specific arguments but also against more general techniques of disinformation (Cook et al., 2017).



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Such efforts can be particularly effective if they cast doubt about the motivations behind the source (Lewandowsky et al., 2012).

2. Media attention: fastly spreading information and malicious actors

Fast evolving information environment: resources

During the crisis situation, the information about the events is produced and spread quickly but the factual basis of this information is usually unclear. Hence, in crisis situations, fact checkers lack reliable information that they could base their work on and provide with certainty to the audience.

Crisis situations are unique and topic-specific events which might require high technical knowledge and expertise to understand their whole complexity. On the other hand, it is virtually impossible for the fact checkers to be topical experts on every single crisis topic. Furthermore, fact-checking organisations are usually small and might lack resources to quickly scale up their activities during a fastly developing crisis and accumulate adequate expertise and they may lack staff to rapidly respond to the enormous amount of information about the crisis event.

Crisis situations also produce a lot of explicit and disturbing content. On a daily basis, fact-checkers have to deal with and get exposed to such content which can influence their mental health and well-being, making their work more stressful and gruelling. In cases where a crisis topic deeply polarises the public, fact checkers might also face hate speech or harassment as they and their fact-checking work might be perceived as politically biased by a highly polarised audience. As a matter of fact, according to a survey 90 percent of fact checkers in Europe disclose to have experienced harassment from political or other relevant actors (Cvjetičanin, 2023). Hence, crisis situations put fact-checkers in a more vulnerable position and make their working environment more stressful.

Malicious actors

Events of significant crises draw extensive media coverage, capturing the collective gaze of the public. Consequently, this dynamic also extends to the realm of misinformation. For example, during the earthquake in Turkey, certain agents disseminated dated images and videos from unrelated incidents, claiming them to be recent footage from the earthquake areas (Panjwani, 2023). The motivation of such actors can be attaining impressions and followers or, more cynically, to exploit the situation for financial gains by soliciting donations.



In a globalised information environment, crises as media events also catch attention beyond the borders of a country. As factual reporting of the crisis, misinformation will also spread on an international or even global scale. In an illustrative example, far-right conspiracy theorists outside the Netherlands spread false information regarding Farmers' protests in the Netherlands (Swenson, 2022). In a very recent example, the Israel-Palestine Conflict has attracted world-wide attention, where different actors engage in a very one-sided but misleading information sharing due to their cultural, ideological or institutional background. Hence, in crisis-situations, fact-checkers have to deal with a greater media attention to a given event, attracting the gaze of both domestic and international audience and actors, which results in more misinformation but also disinformation being spread.

A crisis situation can also attract agents who deliberately aim to spread disinformation for personal gains and perform such a disinformation campaign in an organised manner. Disinformation can be part of a hybrid warfare campaign at undermining legitimacy in communication, and political systems, economies, and in general, fracture or destabilise societies by polluting the information environment with false information and cynicism (Patel, et al. 2020). For example, there is evidence that Russian state actors attempted to exploit the social divides exacerbated by the coronavirus in the United States or European states (Moy et al. 2020; Sukhankin, 2020). A well-organised disinformation campaign does not necessarily have to come from a foreign country but also powerful actors within the country can use disinformation campaigns for personal gains in the midst of a crisis. For example, the Iranian government has even boasted of the development of “cyber battalions” to manipulate the global narratives on the recent anti-government protests in Iran on social media (Hassaniyan, 2022). Hence, malicious actors who engage in well-organised disinformation campaigns to exploit a crisis for strategic advantage present an extra challenge to the work of fact checkers.

Recommendations

To address lack of resources and expert knowledge in fastly evolving crisis situations, more collaboration and use of third party resources might be necessary. Hubs and fact-checkers from the European Digital Media Observatory are a case in point demonstrating international collaboration in times of crisis by sharing information, delegation of fact checking tasks, and informing each other on best practices. CoronaVirusAlliance (see references) of the International Fact-Check Network (IFCN) and EDMO Task Force on disinformation on Russian invasion of Ukraine (see references) serve as fruitful and powerful examples of such collaborations. Sharing practical knowledge and case studies is



especially important since there is not much information and scientific evidence on fact-checking in times of crisis.

To withstand unexpected events effectively, it is essential that the fact-checking community plans ahead, for example by establishing a contingency plan or blueprint for managing fact-checking during times of crisis, such as an emergency or crisis command centre dedicated to fact-checking. It might be beneficial, for instance, to outline the specific criteria that fact-checkers will follow when examining unfolding stories or specify guidelines for the amount of evidence required to confirm or debunk statements circulating in uncertain times. For example, in relation to the recently resurged conflict between Israel and Palestine, fact-checking organisations, like VRT news and Nieuwscheckers.nl, monitor new material and claims on the events in a single feed and provide an overview of most reliable evidence at the time (NWS, 2023; Kuypers, 2023).

Furthermore, crises take different forms and have different root causes, and therefore require different types of expertise which a single fact-checking organisation might not always possess. Hence, rather than developing an expertise on the topic within the fact-checking organisation, fact-checkers may rely on existing experts of the given field or topic. There are many organisations, experts and sources which in their own field specialise in research and verification of open source and crowdsourced information. Bellingcat, for example, is famous for using such open-source intelligence (OSINT) in its work on multiple issues and investigations, such as the Russian invasion of Ukraine. A good case example is AFP's OSINT-based investigation on the events in Bucha in spring 2022 (AFP France, 2023). In another example, the Center for Information Resilience, together with a wider open source community, runs a map document and verifies significant incidents during the Russian war in Ukraine (Burley, 2022). Open source evidence has gained so much credibility that even the European Court of Human Rights explains in its new ruling how open-source information could be used in a court case (Higgings, 2023). OSINT-based collaborations offer an opportunity for fast engagement with unfolding events, providing context and debunking viral claims. A case in point is the investigative journalism work by Bellingcat in relation to the recently resurged Israeli-Palestinian conflict (Bellingcat Intelligence Team, 2023, see [here](#)). Using OSINT tools Bellingcat was able to reconstruct key events in the unfolding of the military escalation and thereby support the debunking of false claims about the conflict.

Quick development of crisis situations and production of information of varying quality, makes it almost necessary for organisations to rely on crowdsourced community input, which together verifies and triangulates information spreading on the internet. As building



such a reliable community can be difficult, it might hence make sense to rely on the work of established and reliable communities and organisations that do this work already.

Arguably, fact-checking is a taxing endeavour for fact-checkers and journalists. Especially in war areas, they may be confronted with explicit material that can be emotionally taxing. For this reason, it may be important to establish a support network and make sure that there are regular check-ins with community members to share experiences and to vent about the distressing materials that they encountered in their work. There are some examples of how this could be practically implemented, as for example having a mental health trustee within the organisation, providing a mental health budget, which the employees can use on hobbies or therapy, or providing group therapy. A community or strengthened network may thus both contribute to the collaborative goals and mental health of the community.

3. Polarisation of crisis topic

Crisis situations can also become politicised in a polarised environment, where even supposedly nonpartisan issues can become polarising issues. Misinformation is highly tied to the phenomenon of polarisation, since misperceptions tend to endure most when closely intertwined with deeply ingrained beliefs or ideologies (Hameleers and van der Meer, 2020). Polarisation affects the work of fact-checkers in two ways. First, research on selective exposure has firmly suggested that when individuals choose news sources, they actively seek for information that aligns with their current beliefs and avoid engaging with news that contradicts their pre-existing views (e.g Bennett & Iyengar, 2008). In the same vein, people tend to select attitudinally congruent fact-checks after exposure to attitudinally incongruent (mis)information and to avoid attitudinally incongruent fact-checks after exposure to attitudinally congruent (mis)information (Hameleers and van der Meer, 2020). This effect could be exacerbated in a polarised environment during a crisis, as individuals tend to form risk perceptions that align with their personal values, and this phenomenon, known as "cultural cognition of risk," influences their beliefs regarding the consensus among scientists across different scientific fields (Kahan et al., 2011).

Second, fact checkers face quite a challenge in the form of polarised individuals, who are motivated to engage in biased information processing and sharing. When information contradicts an individual's personal values or worldviews, it can generate cognitive dissonance, particularly when those worldviews are closely tied to their social identity or ideological group (MacFarlane and Rocha, 2020). Moreover, rather than being a mere cognitive bias, Kahan (2013) shows that individuals in the polarised environment deliberately engage in effortful information processing that can amplify ideologically



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motivated reasoning. This is because engaging with ideologically congruent information and for example sharing it on social media is in fact “expressive rational” behaviour, as it conveys membership in and loyalty to in-group on whom the individual depends for diverse forms of support, including emotional, material, and other type (Kahan, 201; Hillman, 2010; Akerlof and Kranton, 2000). This suggests that information and beliefs of risks in crisis situations can bear social meanings which the individuals process in a way that would convey group commitment and loyalty (Kahan, 2013). Hence, in a polarised environment, motivated individuals tend to assess the risk and seek for information according to their pre-formed beliefs, making it more difficult for fact checkers to effectively address the spread of misinformation.

Recommendation

Given the motivated reasoning of individuals to perceive risk and process risk-related information in an ideologically-congruent way, it would be good to acknowledge in communication the ideological diversity of the audience. For example, research on climate change framing by Feygina et al. (2010) shows that even minor cues in the messaging of scientific knowledge, such as a couple of sentences that portray protecting climate as a patriotic deed, targeted at conservative individuals, can have significant impacts on attitudes and behaviours. Since it might be very difficult, or even undesirable, to target ideologically distinct groups with ideologically congruent social cues, it might be a better strategy to activate a superordinate social identity, for example, by referring to some unifying, cleavage-crossing identity (Van Bavel and Cunningham, 2011). In general, fact checkers should pay diligent attention to fact checks not having any language or formulation which might be interpreted as ideologically biased, which is already stressed by the IFCN code of practice and EFCN code of standards. Both the IFCN code of practice (<https://www.ifcncodeofprinciples.poynter.org/>), and EFCN's Code of standards (<https://efcsn.com/code-of-standards/>) stress the importance of non-partisanship and impartiality of fact check articles. Organisations that are verified signatories of both codes need to pass a thorough review process by external reviewers, who check whether an organisation really applies this impartiality.

Conclusions

Crisis contexts may present specific challenges for the fact-check community. Although many of the same issues and recommendations as in routine times apply (see white paper “Making fact-checks work: Evidence-based recommendations for practitioners”, [here](#)), we have discussed different aspects in which crisis contexts are different from routine periods in this paper. Most importantly, crisis contexts exacerbate the challenges already established in the fact-checking realm: 1) there is a lack of resources to keep up with the



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fast pace of disinformation disseminated, 2) people may be vulnerable to emotionally charged and confirmation-biased disinformation, and 3) the challenges of persuading people to select and process factual statements that go against their (ideological) beliefs are even more pronounced in crisis times.

In this white paper, we also specified how crises may pose new challenges to the fact-checking community. We will highlight the most important challenges here. First, in crisis times, a lot of information is unverified, unknown, but at the same time, highly prevalent in online media. Although people's demand for information is high, the media may struggle to keep citizens informed about unfolding events. When certainty is low, the media may have to confront citizens with retractions of earlier statements, or explicitly state the uncertainty of claims about claims. This is especially challenging as crisis settings, such as COVID-19, may also be surrounded by high levels of distrust and uncertainty from the audience. In such a context, fact checks too may have to draw the conclusion that there is no sufficient evidence yet to support or fully disprove specific claims.

In light of these challenges, we have forwarded different recommendations for fact-checking in times of crisis in this white paper. Three major overarching suggestions stand out: (1) the need for enhanced transparency in the process of fact-checking and the generation of knowledge; (2) the need for a strong fact-checking community based on collaborations and a mental safety net; (3) a reinforcement of fact-checking infrastructures and routines anticipating future crisis situations.

Related to the first recommendation, the context of high uncertainty on the supply- and demand-side calls for enhanced transparency in the routines and principles of fact-checking. While many fact-check organisations are already transparent about how they operate in routine times, it is during crisis times that this becomes particularly important: How do they select the claims to fact-check, and how do they collect evidence in a fair, transparent, and balanced manner to validate or falsify the claims that they come across? In times of crisis, transparency related to the uncertainty of expert knowledge and empirical evidence of unfolding events may help to mitigate the fluxing levels of distrust. Here, it may also be crucial to help citizens navigate uncertainty and distrust by pointing them to the sources that are more or less trustworthy in reporting on the unfolding events amidst crises.

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Finally, and perhaps most important, it is crucial that the infrastructure and practices of fact-checking are prepared for future crisis situations, so that they are more resilient to unexpected events. Crises emerge unexpectedly and abruptly, so it is crucial that there is a scenario or blueprint available for how to deal with fact-checking in times of crisis (i.e., an emergency or crisis centre for fact-checking). It may, for example, be worthwhile to specify how fact-checkers will go about the inclusion criteria for checking rumours and viral stories. In addition, as evidence may be more difficult to gather for novel events, guidelines could be developed for how much evidence would be needed to verify or falsify the statements that circulate in uncertain times. Formalising such strategies and rules in a handbook for fact-checking during a crisis may also contribute to more transparency and therefore trust in the principles and routines of fact-checkers.



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This project has received funding from the European Union under Agreement number: INEA/CEF/ICT/A2020/2381738