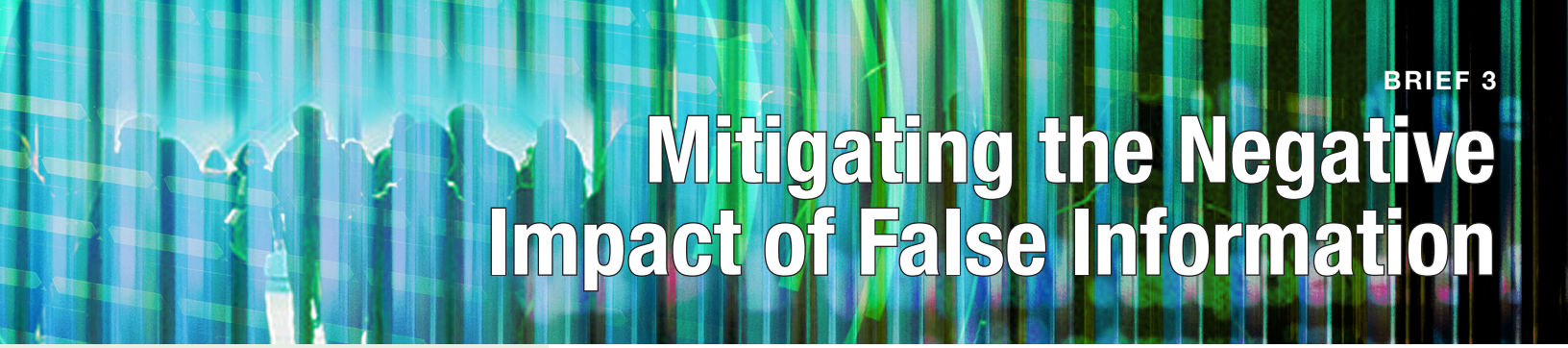

BRIEF 3

Mitigating the Negative Impact of False Information

KEY FINDINGS

- **Only 15% of surveyed journalists have taken part in any sort of training on how to combat the effects of false information.**
- **Surveyed journalists sought resources across six areas to mitigate the impact of false information: tools and trainings, guidelines for reporting on false information, advice on operational and legal security, mental health resources, accountability mechanisms, and improved media literacy.**
- **Interventions that label information true or false can actually amplify errors in less-informed social networks. Labeling a story's credibility on a continuous scale improved the accuracy of the networks and outperformed improvements from networks labeling stories dichotomously as true or false.**

Building on the prior two briefs, this memo will outline the state of strategies and interventions being utilized by journalists in the field to mitigate the impact of false information* on the production of news. Strategies employed range from instincts to technical tools. Analysis draws on a survey of 1,018 journalists, 22 semi-structured interviews with additional journalists, media experts, and secondary sources. In addition, we will outline an original intervention that helps networks of individuals improve their accuracy in judging false information. See the Executive Summary for more on the methodology. The intervention could be applied to social media platforms or to newsrooms and journalist networks.

STRATEGIES TO APPROACHING FALSE INFORMATION

Sifting through false information and judging the credibility of information is as old as the profession of journalism itself. Reporters are trained through their education, on-the-job experience, and professional associations how to fact-check, source information, and minimize their biases in conveying information. In the current news environment, many journalists apply these skills to the issue of false information, whether that be disinformation campaigns, "fake news," or misinformation.

Interviewees and surveyed respondents expressed that they relied on their "instincts," "common sense," and previous experience as the first line of defense against false information. Fact-checking information, searching for multiple sources of confirmation on a particular claim, and talking to sources in person were also highlighted as standard practices that can help prevent the dissemination of false information. Many mentioned relying on the "grapevine" or personal networks, as well as relationships with other reporters and sources, to validate or invalidate information.

ABOUT THESE BRIEFS

The New Venture Fund provided a grant to the IFTF Digital Intelligence Lab to survey leading journalists and experts to ascertain the impact of false information on the information ecosystem and the production of news. For more information see Digital Propaganda and the News Briefs, Executive Summary at www.iftf.org/journalismandfalseinfo.

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In an increasingly digital and connected world, journalists are also employing standard practices online to their benefit. The Internet helps journalists identify and connect with academic experts, reference public records, and process things like Freedom of Information Requests. Benefits can be gained, but often at the expense of navigating abundant false information. Despite regarding social media as a poor source, many survey respondents said they regularly used Facebook and Twitter to find and vet sources. Unconventional tools, like asking a Twitter source to send a selfie to prove his or her identity, have cropped up in response to increasing uncertainty about the validity of the platforms.

Discussion of the Internet as a tool to combat or verify false information was mixed. Some survey respondents said that the Internet had made their jobs easier and that now they can verify anything. Others echoed the lament that, "Sadly, Google is the best resource currently at my disposal," conveying skepticism for social media sources. Other journalists mentioned the importance of following hyperlinked information back to its original source. They said that often hyperlinks link to each other in a never-ending circle that does not connect to the original source referenced, which is problematic.

Interviewees that have reported extensively on false information are concerned about the reliance in the field on the Internet, citing that sophisticated bad actors can manipulate Google search results and trending algorithms. These journalists also referenced operational security as key to protecting oneself from false information. Virtual private networks, difficult passwords, privacy controls on social media, and burner phones were referenced as best practices for the current news environment.

Others mentioned targeted tools to counter the influence of false information. Snopes, a fact-checking website that labels false information, was the most commonly referenced tool. To sift through social media, journalists use CrowdTangle, BuzzSumo, and TweetDeck. Journals, like *Nature* and *Science,* or aggregations of scientific information, like PubMed, were also frequently referenced, particularly by science and health reporters. PolitiFact, the Library of Congress, factcheck.com, ClinalTrials.gov, ResearchGate, Retraction Watch, and the Freedom of the Press Foundation were also mentioned as helpful resources for validating information. Several also referenced The Verification Handbook, an online guide for approaching sourcing in the digital era, as a helpful resource.

Technology and data reporters pointed out that original data analysis is increasingly utilized by journalists. Data scientists have become more common in newsrooms, while publicly available data from governments, civil society, and social media platforms enable reporters to conduct original analyses to substantiate their claims, debunk false information, and analyze disinformation campaigns.

One debated approach is to discontinue the use of anonymous sources given the current news environment. One interviewed technology reporter said that she relied almost exclusively on anonymous sources because she was often uncovering wrongdoings at technology companies where sources, such as current or former employees, did not want attribution for fear of reputational or legal consequences. She said that in the current environment she worries that her reporting is not thought of as credible and that individuals she accuses of wrongdoing can just label her work as false. She found this to be problematic, as anonymous sourcing is critical to journalism, particularly investigative journalism. In contrast, other reporters called for the practice to be done away with completely as a way to undermine criticism of the media. One surveyed reporter said:

The key to stopping the spread of misinformation is proper attribution. The unnamed source should be done away with. There should never be anonymous sources in articles. I was trained that way. Prior to Watergate, it was the widespread practice. The only reason why someone resorts to an unnamed source is because the reporter has decided that "the end justifies the means." Yes, Watergate reporting brought down a president. It also brought down journalism, the Fourth Estate. Which was the bigger deal? I think it is clear.

Finally, many mentioned that they often rely on gut feeling and experience to assess source credibility. However, journalists did not agree on what constituted a credible source.

WHAT IS NEEDED

While journalists have come up with a variety of strategies to deal with false information, many expressed they would benefit from trainings or resources specifically designed to counteract the impact of false information. Only 15% of surveyed journalists, and a smaller percent of interviewed journalists, reported having taken part in trainings on how to handle, report on, or protect oneself from false information (Figure 1).

A small number of surveyed journalists felt strongly that they did not need additional training on false information. These respondents felt that either the current tools they had were sufficient or that the problem is out of the hands of the journalists. For example, one journalist in response to a question about what resources he or she would like said:

None. This is pretty basic. You don't do it. You check and double-check sources. You don't print single-source or anonymous-source stories.

Another journalist responded,

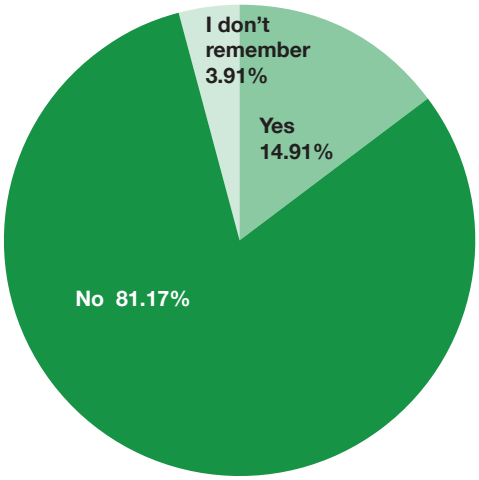
It's the public who needs to be educated, not us.

Of the respondents that did want further training or resources, ideas covered a wide variety of topics and approaches. Requested resources and trainings fell broadly into six categories: tools and trainings, guidelines for reporting on false information, advice on operational and legal security, mental health resources, accountability mechanisms, and improved media literacy.

Tools and Trainings

Many respondents wanted more information about how to spot false information, how to better vet sources, reliable online fact-checking sources, and more discussion about journalistic bias. Roughly 55% of surveyed respondents said they would appreciate trainings specifically on mis- and disinformation. Others called for more specific tools—better methods to identify automated "bot" accounts, false social media accounts, false videos, and fake images. A few journalists mentioned hearing of nascent tools

FIGURE 1
Through your employer or professional organizations you are part of, have you taken part in any formal trainings regarding the spread of false information?



Total Responses: 818

Source: Stanford University and Institute for the Future, Survey on Current News Environment, 2018.

to identify fake accounts and imagery, but they were not widely known nor developed. Roughly half of respondents said that they would like access to social media training that could help them identify bots. There was also desire for information newsfeeds that are insulated from false information and attacks.

Another discussed resource was increased access to experts on disinformation campaigns and data scientists. Some interviewed journalists recommended having a data scientist embedded in each newsroom to conduct original data analysis and help reporters working in data-heavy areas understand reports, particularly scientific reports. Similarly, a disinformation or misinformation expert could serve as a resource to help journalists identify false stories and trends in disinformation campaigns. Echoing interviews, 54% of surveyed respondents said they would like increased access to data scientists and experts in false information. Survey respondents also mentioned that they would like expanded, free access to scientific journals, which are often unavailable in smaller newsrooms.

Guidelines for Reporting on False Information

In interviews, the vast majority of journalists expressed how difficult it was to determine what false information was newsworthy. Further, over half of surveyed journalists felt that covering false information could be counterproductive or harmful. Coverage on false information can inadvertently spread the information or lend it credibility.[1] Guidelines on how and when to cover false information are ill-defined or nonexistent. 62% of surveyed respondents said they would like discussions on guidelines for reporting on misinformation and disinformation.

Operational and Legal Security

Requests for operational security and legal support were also frequently mentioned. Particularly among journalists with heightened knowledge of disinformation campaigns, operational security concerns were front and center. Journalists expressed desire for trainings on operational security, particularly concerning how to protect themselves from hackers, harassment, and violations of sensitive data. One reporter said that she was targeted online, and despite being at a highly respected national newsroom, she did not have any professional resources to help her and was left on her own to research defense strategies. Despite the vulnerability of journalists, only a minority of survey respondents were concerned with operational security, with 26% saying they would benefit from trainings. However, of those who mentioned it in interviews, it was a primary concern, indicating that training might be particularly beneficial for reporters working within areas that are technology focused and more likely to be targeted by sophisticated actors.

In addition to operational security, many mentioned concerns about legal insecurity. Journalists mentioned that they were unsure about the legal consequences of either mistakenly including false information in their reporting or of reporting on false information. The current news environment has made it increasingly easy for people to label journalists' work as fake, debatably increasing the potential for legal consequences. Further, journalists have legal concerns about simply uncovering and reporting unwelcome information. One survey respondent said:

> **I have been threatened with a potential lawsuit in the past by a company that didn't like what I wrote because it revealed unflattering information about them. It freaked me out at the time and I needed other journalists to educate me and relieve my anxieties regarding the reaction to my truth telling. I wish journalists were better informed about legalities.**

An interviewed journalist also mentioned that the laws around publishing on digital content are changing frequently, and understanding what you are or are not allowed to publish, in terms of images and social media posts,

is unclear. Journalists expressed that better access to lawyers would help them navigate this increasingly complicated news environment.

Mental Health Resources and Responding to Hostile Audiences

Some respondents mentioned the emotional toll of harassment and lack of information about how to prevent and mitigate harassment. Surveyed journalists mentioned wanting threat-tracking assistance in their newsroom, "more awareness for the emotional toll this takes for us," and access to "mental health or counseling for journalists." One survey respondent echoed these sentiments, saying that journalists need "counselors to deal with the harassment. Journalists vent to each other about this all the time, but sometimes it can get really nasty and disheartening. Would be nice to get extra support." Although a minority of surveyed respondents (22%) said that they wanted more information on mental health resources, for those that did discuss it, it was a high priority.

In a similar vein, other journlists stated a need for more training on how to effectively respond to angry consumers. One survey respondent said he or she would like:

> **Training on how to handle situations where you are communicating with a hostile audience (whether that is a one-on-one in-person situation, a harasser on social media, etc.). Also, strategies/how to effectively convey necessary information succinctly and effectively to people who may not initially agree with the information you are presenting. What is the best strategy? Do you start where they are and work your way back to the facts? I think part of the reason false information continues to spread is that people presenting scientifically accurate information cannot always communicate their position as compellingly or eloquently as those spreading misinformation.**

Another said he or she wanted:

> **Some training on the most effective ways to respond to attacks on your own work would be helpful. Scientifically and psychologically, what are the best ways to deal with trolls or people who track you down to attack or harass you?**

Accountability

One theme that came up both in interviews and the survey was a desire in the community for more accountability for journalists that do actually spread false information, either knowingly as "clickbait" or mistakenly. Many journalists noted that those in the field who spread false information, and are therefore responsible for the profession's decreased credibility, rarely face any consequences. Respondents recommended "pulling the broadcast licenses of broadcasters who repeatedly post information they know to be false," an "FCC with some teeth," "some sort of organization (informal—certainly not government-backed) dedicated to 'outing' spreaders of false information, so legitimate journalists are aware of them," and "a database that tracks some of the worst offenders at spreading fake news on social media."

Other respondents felt that it would be too hard to create regulation around the use of false information or to punish those that did spread it because it would become an ideologically slippery space where an authority would have to decide what was false or real. Others talked about wanting increased accountability from the platforms that allow false information to spread. While some were satisfied that Facebook, Twitter, and others had started to take down false accounts and publicize disinformation campaigns, a large majority felt that these companies have not done enough. Many felt that social media companies needed to enhance their internal accountability, or establish external

regulation committees.

Media Literacy

The last major theme mentioned across our research was media literacy. Several interviewed and surveyed journalists felt that there should be increased media and information literacy throughout the education system, including in journalism schools. Within journalist education, journalist mentioned that digital false information is often solely mentioned as a brief segment in a larger course. Some felt that the issue should be incorporated throughout classes on sourcing, ethics, and best practices.

In addition to formal journalism classes, interviewees thought that media literacy should be more incorporated into U.S. public school curriculum. This idea was echoed by interviewees who mentioned that media literacy should start in elementary school and continue through college. One journalist interviewed argued, “A lot of people simply don’t have sufficient knowledge or training to be discerning in the new media ecosystem. It is hard enough for journalists to keep filters in place let alone for people who don’t do this as their job eight hours a day.” Others mentioned that this has long been an issue area and that efforts have been largely unsuccessful due to disagreements about how to implement media literacy campaigns, and how much effort and time they take to implement.

AN ORIGINAL INTERVENTION

In addition to the outlined resources and trainings above, many newsrooms and civil society organizations are informally and formally developing tools and networks to thwart the impacts of false information. For instance, First Draft is an organization that seeks to counter false information through fieldwork, education, and guidelines. They have successfully piloted fact-checking networks in France, networks of newsrooms in Brazil, and a project in the United States alerting newsrooms about false information surrounding the 2018 midterm elections.[2] Other prominent actors in this field include Data & Society, the Computational Propaganda Project at Oxford University, and the News Integrity Initiative. Several other organizations have touched on the area from a variety of broader angles that are not focused on journalism. Social media platforms and technology companies have also begun to develop mechanisms to cultivate newsfeeds in order to expose users to a variety of perspectives. Additionally, several have talked about developing technological or artificial intelligence tools to root out false information.

One of the major themes in interventions in this space has been to build more reliable collaborative environments that help journalists detect, report, and learn from false information. This has been explored in various forms such as Wikipedia models, debunking databases, or informal blacklists of sources and stories.

In a related vein, we developed and tested an original model to address the following research question:

> **Under what conditions will building a network (or group) of individuals lead to beneficial outcomes in flagging false information?**

In particular, we wanted to see under what circumstances we could increase the accuracy of respondents in identifying false and real news stories.

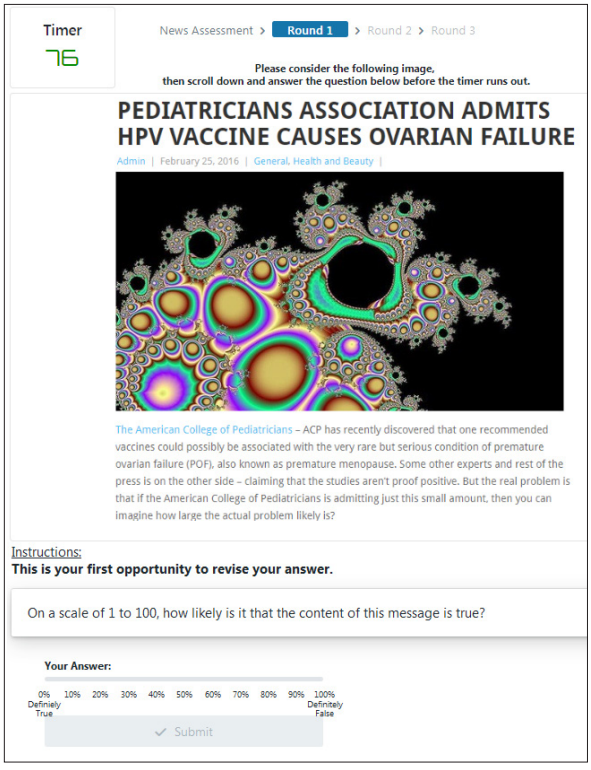
To do so, we built an online interface to study individual and group decision-making. We recruited 360 participants that we separated into 18 groups (or networks) of 20 participants. Participants were presented with randomly

selected stories that covered vaccines, domestic politics, U.S. immigration, and other topics in the news media. Stories were actual stories that had circulated online. They were sourced from Snopes.com, which had verified if stories were either true or false. Participants were shown a story such as that in Figure 2 and then asked to judge if the story was real or not.

About half of the participants were asked to rank the accuracy of the story on a 0-100% scale where 100% reflected that they were 100% confident the story was real. We refer to this continuous choice as the "continuous numeric" condition. The other half of the participants were asked to rank the story as either true or false, a dichotomous choice we refer to as the "discrete choice" condition. In each condition, participants were randomly assigned to a network of other participants that were on average initially accurate or inaccurate in their identification of a story as being true or false.

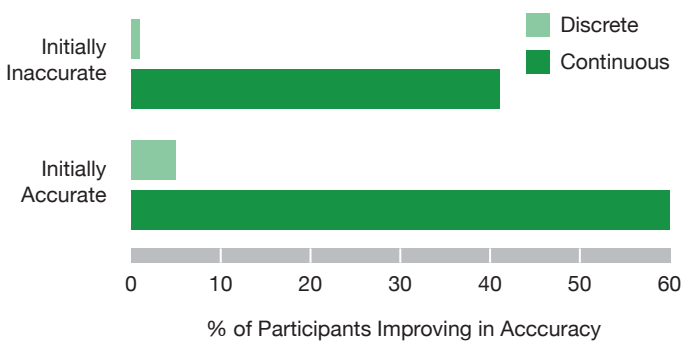
After initially ranking the likelihood of a story as being true, along a 0-100 scale (for those assigned to the continuous condition), or as true or false (for those assigned to the dichotomous condition), participants were shown the estimates of the other participants in their network. Participants could then choose to change their estimate upon seeing the estimates of others in the network. This continued for two more rounds. As Figure 3 illustrates, participants were more likely to improve in their accuracy in the continuous numeric condition. This means that when participants were told to rate a story on a 0-100 scale, the network itself became more accurate at identifying real and fake news stories. In particular, 60% of participants improved in accuracy in the network that was initially accurate, and 41% improved in accuracy

FIGURE 2
Example of story on online interface



Source: Image/story from Snopes (https://www.snopes.com/fact-check/pediatricians-association-admits-hpv-vaccine-cancer-link/)

FIGURE 3
Results of intervention



Source: University of Pennsylvania, Northwestern University, and Institute for the Future, False Information Intervention, 2018.

of identifying fake and real stories in the network that was initially inaccurate (Figure 3).

Importantly, allowing participants to estimate the credibility of a story on a continuous scale improved the overall accuracy of the network and outperformed improvements from networks labeling stories dichotomously as true or false, regardless of whether or not a network was initially accurate. Further tests revealed that allowing participants to label things true or false dichotomously can actually decrease the network's overall accuracy if the network is initially inaccurate. This means that labeling things true or false can amplify error or inaccuracy in a network. These results were confirmed in computer simulations and through complementary experiments. As such, these findings suggest that labeling something true or false (i.e., the norm of current fact-checking organizations and debunking websites) could be detrimental to achieving greater accuracy in identifying false information. Meanwhile, these findings indicate that labeling things on a continuous scale can help networks learn and more accurately distinguish true stories from false stories.

As previously mentioned, creating networks of journalists or online resources that identify stories that are inaccurate is one way in which civil society and newsrooms are adapting to the current news environment. While these networks may be helpful, our research suggests that how they are set up and the tools they use to identify false news merit further investigation. In particular, labeling things true and false could be problematic when full information is unavailable to definitively categorize a story as true or false. Interventions like the one discussed here could be implemented in newsrooms and, potentially, on social media platforms.

RECOMMENDATIONS AND AVENUES FOR FUTURE RESEARCH

Journalists would benefit from resources across six areas in order to mitigate the impact of false information upon them and their field: tools and trainings, guidelines for reporting on false information, advice on operational and legal security, mental health resources, accountability mechanisms, and improved media literacy more broadly. This brief has outlined how many journalists conceive of these resources and how they could be helpful in their day-to-day jobs.

In addition, the original intervention tested here suggests that efforts to establish networks to identify or label false information should be designed with care. First, our results suggest that using a continuous categorization of false information, for example confidence level of a story's accuracy, is more beneficial than dichotomously labeling something as true or false. This has implications for many of the current interventions being tested in the field. Further research should be conducted to better understand the conditions under which interventions, like the one we have explored, can be applied successfully to the field of journalism, or more broadly to social media and other platforms.

Future research should also expand the variety of tools to identify disinformation campaigns and false information. Easily accessible and usable tools that could help journalists identify fake video or images would be beneficial to the field. Unfortunately, tools that can help identify things like deep fakes (highly convincing counterfeit video) are often outpaced by the speed at which the technology develops. Aggregations of resources like technology tools, as well as more traditional websites, databases, and experts, would be helpful, as our survey and interviews suggest that there is a lack of mutual awareness of potential tools already available for checking sources and tracking disinformation efforts.

ENDNOTES

* This brief will use the term false information to refer to information that is factually incorrect including mis- and disinformation. Borrowing from Wardle and Derakhshan, misinformation refers to "information that is false, but not produced with the intention of causing harm," and disinformation refers to "information that is false and deliberately produced to harm a person, social group, organization, or country." Wardle, Claire and Hossein Derakhshan. 2017. "Information Disorder: Toward an interdisciplinary framework for research and policymaking." Council of Europe, pg 20. 64% of respondents were male and 36% were females.

1. See the first brief in this series for more details on this topic.
2. For more information go to https://firstdraftnews.org.

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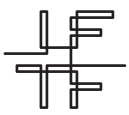
The **Digital Intelligence Lab** at Institute for the Future is a social scientific research entity conducting work on the most pressing issues at the intersection of technology and society. We examine how new technologies and media can be used to both benefit and challenge democratic communication.



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