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Report

How to combat fake news and disinformation

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Executive summary

Journalism is in a state of considerable flux. New digital platforms have unleashed innovative journalistic practices that enable novel forms of communication and greater global reach than at any point in human history. But on the other hand, disinformation and hoaxes that are popularly referred to as "fake news" are accelerating and affecting the way individuals interpret daily developments. Driven by foreign actors, citizen journalism, and the proliferation of talk radio and cable news, many information systems have become more polarized and contentious, and there has been a precipitous decline in public trust in traditional journalism.

Fake news and sophisticated disinformation campaigns are especially problematic in democratic systems, and there is growing debate on how to address these issues without undermining the benefits of digital media. In order to maintain an open, democratic system, it is important that government, business, and consumers work together to solve these problems. Governments should promote news literacy and strong professional journalism in their societies. The news industry must provide high-quality journalism in order to build public trust and correct fake news and disinformation without legitimizing them. Technology companies should invest in tools that identify fake news, reduce financial incentives for those who profit from disinformation, and improve online

accountability. Educational institutions should make informing people about news literacy a high priority. Finally, individuals should follow a diversity of news sources, and be skeptical of what they read and watch.

The state of the news media

The news media landscape has changed dramatically over the past decades. Through digital sources, there has been a tremendous increase in the reach of journalism, social media, and public engagement. Checking for news online—whether through Google, Twitter, Facebook, major newspapers, or local media websites—has become ubiquitous, and smartphone alerts and mobile applications bring the latest developments to people instantaneously around the world. As of 2017, 93 percent of Americans say they receive news online.[1] When asked where they got online news in the last two hours, 36 percent named a news organization website or app; 35 percent said social media (which typically means a post from a news organization, but can be a friend's commentary); 20 percent recalled a search engine; 15 percent indicated a news organization email, text, or alert; 9 percent said it was another source; and 7 percent named a family member email or text (see Figure 1).[2]

## Figure 1: Where people get online news in the US, 2017
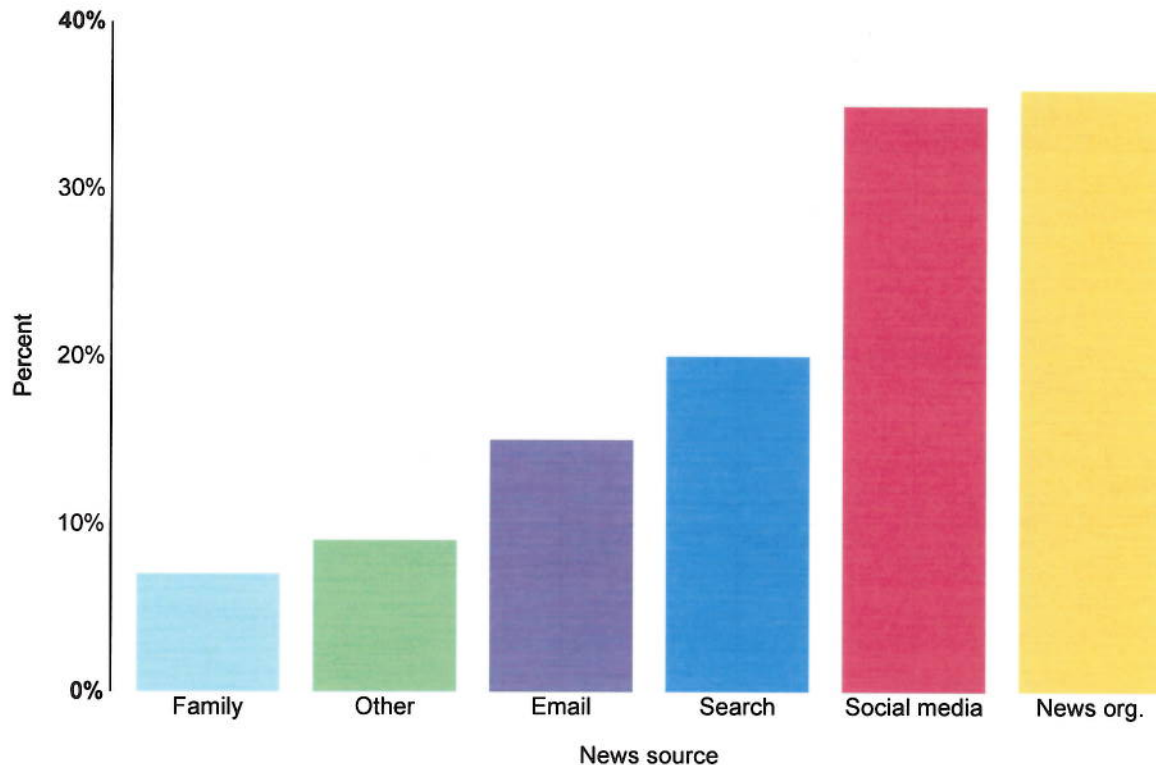
Source: Pew Research Center, "How Americans Encounter, Recall, and Act Upon Digital News," February 9, 2017.

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In general, young people are most likely to get their news through online sources, relying heavily on mobile devices for their communications. According to the Pew Research Center, 55 percent of smartphone users receive news alerts on their devices. And about 47 percent of those receiving alerts click through to read the story.[3] Increasingly, people can customize information delivery to their personal preferences. For example, it is possible to sign up for news alerts from many organizations so that people hear news relevant to their particular interests.

There have been changes overtime in sources of news overall. Figure 2 shows the results for 2012 to 2017. It demonstrates that the biggest gain has been in reliance upon social media. In 2012-2013, 27 percent relied upon social media sites, compared to 51 percent who did so in 2017.[4] In contrast, the percentage of Americans relying upon print news has dropped from 38 to 22 percent.

Figure 2: Change in overall news sources, 2012-2017
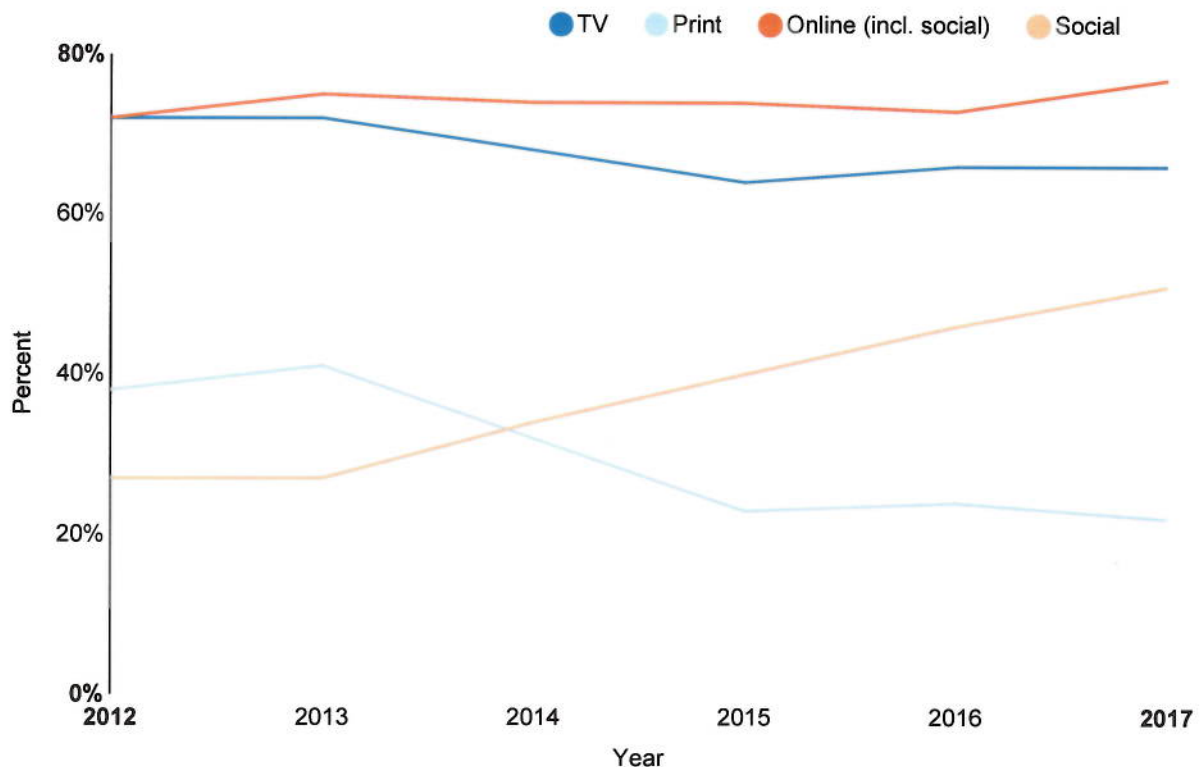
Source: Nic Newman, "Digital News Sources," Reuters Institute for the Study of Journalism, 2017.
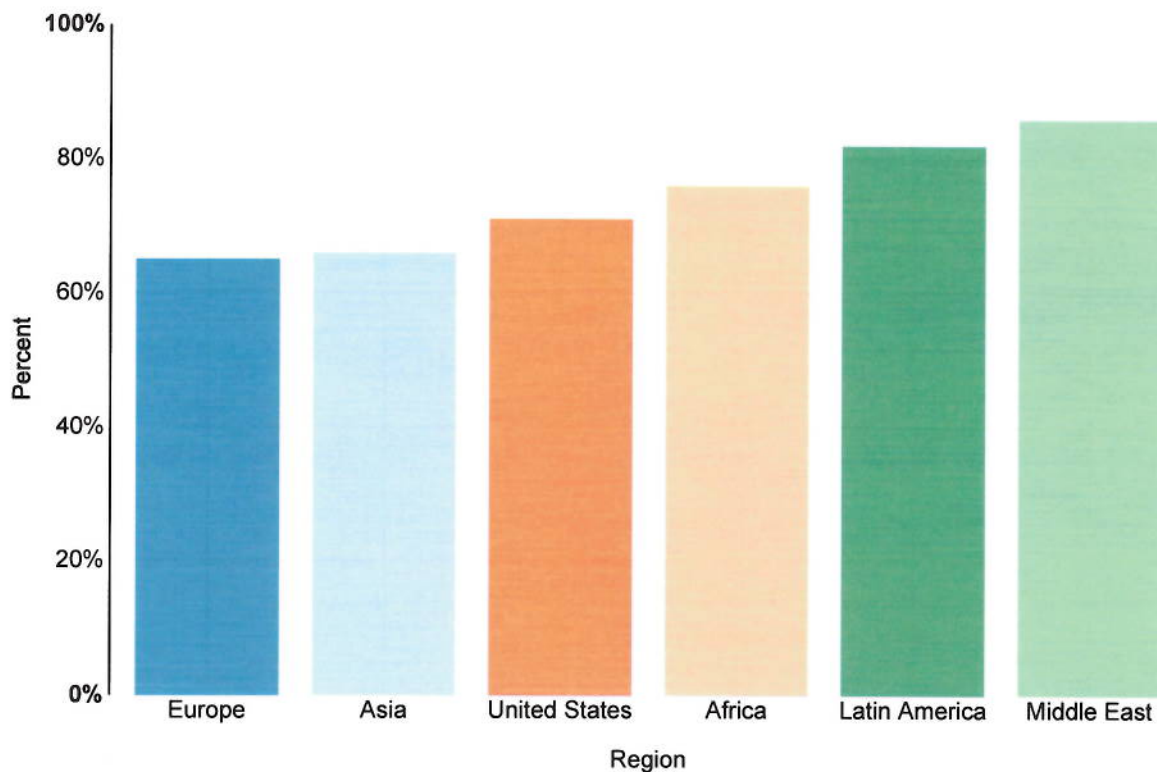
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A number of research organizations have found significant improvements in digital access around the world. For example, the Pew Research Center has documented through surveys in 21 emerging nations that internet usage has risen

from 45 percent in 2013 to 54 percent in 2015. That number still trails the 87 percent usage figure seen in 11 developed countries, but there clearly have been major gains in many places around the world.[5]

Social media sites are very popular in the developing world. As shown in Figure 3, 86 percent of Middle Eastern internet users rely upon social networks, compared to 82 percent in Latin America, 76 percent in Africa, 71 percent in the United States, 66 percent in Asia and the Pacific, and 65 percent in Europe.

## Figure 3: Use of social media in various regions, 2016

Source: Jacob Poushter, "Smartphone Ownership and Internet Usage Continues to Climb in Emerging Economies," Pew Research Center, February 22, 2016.

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Declining trust in the news media

In the United States, there is a declining public trust in traditional journalism. The Gallup Poll asked a number of Americans over the past two decades how much trust and confidence they have in mass media reporting the news fully, accurately, and fairly. As shown in Figure 4, the percentage saying they had a great deal or fair amount of trust dropped from 53 percent in 1997 to 32 percent in 2016.[7]

Figure 4: Public trust in traditional news media, 1997-2016
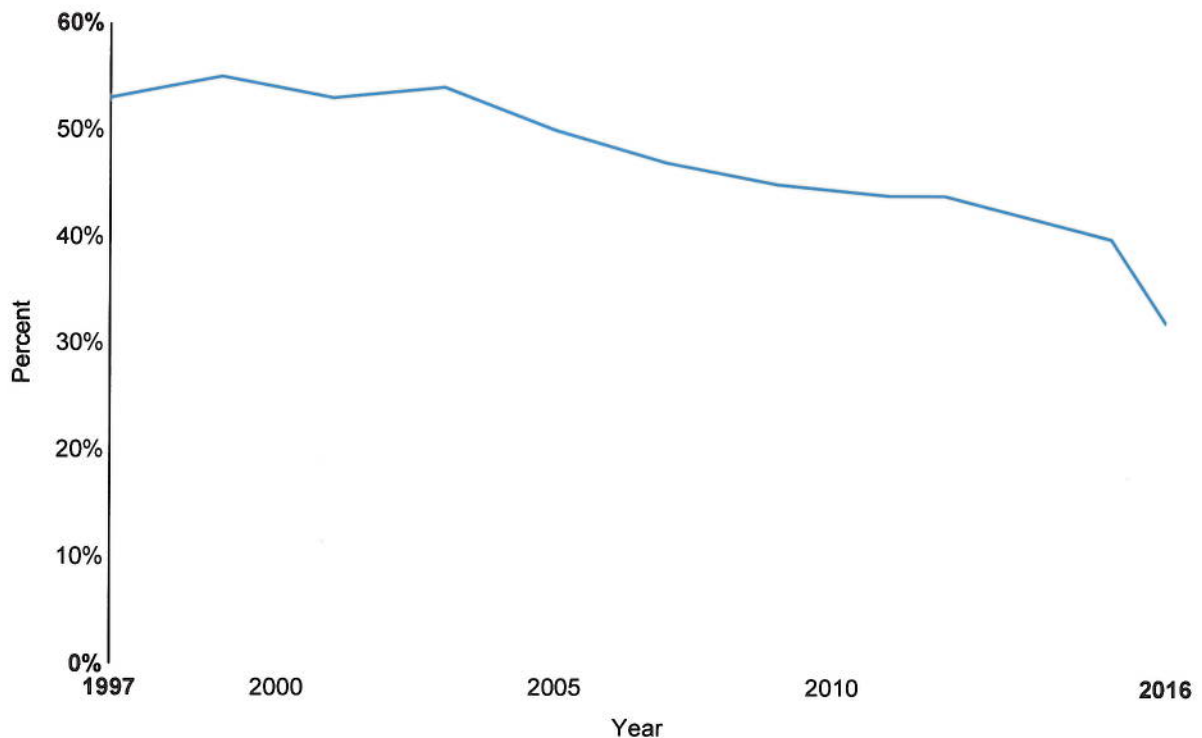
Source: Gallup, "Americans' Trust in Mass Media Sinks to New Low,"
September 14, 2016.

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Between news coverage they don't like and fake news that is manipulative in nature, many Americans question the accuracy of their news. A recent Gallup poll found that only 37 percent believe "news organizations generally get the facts straight." This is down from about half of the country who felt that way in 1998. There is also a startling partisan divide in public assessments. Only 14 percent of Republicans believe the media report the news accurately, compared to 62 percent for Democrats. Even more disturbingly, "a solid majority of the country believes major news organizations routinely produce false information."[8]

Challenges facing the digital media landscape

As the overall media landscape has changed, there have been several ominous developments. Rather than using digital tools to inform people and elevate civic discussion, some individuals have taken advantage of social and digital platforms to deceive, mislead, or harm others through creating or disseminating fake news and disinformation.

Fake news is generated by outlets that masquerade as actual media sites but promulgate false or misleading accounts designed to deceive the public. When these activities move from sporadic and haphazard to organized and systematic efforts, they become disinformation campaigns with the potential to disrupt campaigns and governance in entire countries.[9]

As an illustration, the United States saw apparently organized efforts to disseminate false material in the 2016 presidential election. A Buzzfeed analysis found that the most widely shared fake news stories in 2016 were about "Pope Francis endorsing Donald Trump, Hillary Clinton selling weapons to ISIS, Hillary Clinton being disqualified from holding federal office, and the FBI director receiving millions from the Clinton Foundation."[10] Using a social media assessment, it claimed that the 20 largest fake stories generated 8.7 million shares, reactions, and comments, compared to 7.4 million generated by the top 20 stories from 19 major news sites.

When [fake news] activities move from sporadic and haphazard to organized and systematic efforts, they become disinformation campaigns with the potential to disrupt campaigns and governance in entire countries.

Fake content was widespread during the presidential campaign. Facebook has estimated that 126 million of its platform users saw articles and posts promulgated by Russian sources. Twitter has found 2,752 accounts established by Russian groups that tweeted 1.4 million times in 2016.[11] The widespread nature of these disinformation efforts led Columbia Law School Professor Tim Wu to ask: "Did Twitter kill the First Amendment?"[12]

A specific example of disinformation was the so-called "Pizzagate" conspiracy, which started on Twitter. The story falsely alleged that sexually abused children were hidden at Comet Ping Pong, a Washington, D.C. pizza parlor, and that Hillary Clinton knew about the sex ring. It seemed so realistic to some that a North Carolina man named Edgar Welch drove to the capital city with an assault weapon to personally search for the abused kids. After being arrested by the police, Welch said "that he had read online that the Comet restaurant was harboring child sex slaves and that he wanted to see for himself if they were there. [Welch] stated that he was armed."[13]

A post-election survey of 3,015 American adults suggested that it is difficult for news consumers to distinguish fake from real news. Chris Jackson of Ipsos Public Affairs undertook a survey that found "fake news headlines fool American adults about 75 percent of the time" and "'fake news' was remembered by a significant

portion of the electorate and those stories were seen as credible."[14] Another online survey of 1,200 individuals after the election by Hunt Allcott and Matthew Gentzkow found that half of those who saw these fake stories believed their content.[15]

False news stories are not just a problem in the United States, but afflict other countries around the world. For example, India has been plagued by fake news concerning cyclones, public health, and child abuse. When intertwined with religious or caste issues, the combination can be explosive and lead to violence. People have been killed when false rumors have spread through digital media about child abductions.[16]

Sometimes, fake news stories are amplified and disseminated quickly through false accounts, or automated "bots." Most bots are benign in nature, and some major sites like Facebook ban bots and seek to remove them, but there are social bots that are "malicious entities designed specifically with the purpose to harm. These bots mislead, exploit, and manipulate social media discourse with rumors, spam, malware, misinformation, slander, or even just noise."[17]

This information can distort election campaigns, affect public perceptions, or shape human emotions. Recent research has found that "elusive bots could easily infiltrate a population of unaware humans and manipulate them to affect their perception of reality, with unpredictable results."[18] In some cases, they can "engage in more complex types of interactions, such as entertaining conversations with other people, commenting on their posts, and answering their questions." Through designated keywords and interactions with influential posters, they can magnify their influence and affect national or global conversations, especially resonating with like-minded clusters of people.[19]

An analysis after the 2016 election found that automated bots played a major role in disseminating false information on Twitter. According to Jonathan Albright, an assistant professor of media analytics at Elon University, "what bots are doing is really getting this thing trending on Twitter. These bots are providing the online crowds that are providing legitimacy."[20] With digital content, the more posts that are shared or liked, the more traffic they generate. Through these means, it becomes relatively easy to spread fake information over the internet. For example, as graphic content spreads, often with inflammatory comments attached, it can go viral and be seen as credible information by people far from the original post.

Everyone has a responsibility to combat the scourge of fake news. This ranges from supporting investigative journalism, reducing financial incentives for fake news, and improving digital literacy among the general public.

False information is dangerous because of its ability to affect public opinion and electoral discourse. According to David Lazer, "such situations can enable discriminatory and inflammatory ideas to enter public discourse and be treated as fact. Once embedded, such ideas can in turn be used to create scapegoats, to normalize prejudices, to harden us-versus-them mentalities and even, in extreme cases, to catalyze and justify violence."[21] As he points out, factors such as source credibility, repetition, and social pressure affect information flows and the extent to which misinformation is taken seriously. When viewers see trusted sources repeat certain points, they are more likely to be influenced by that material.

Recent polling data demonstrate how harmful these practices have become to the reputations of reputable platforms. According to the Reuters Institute for the Study of Journalism, only 24 percent of Americans today believe social media sites "do a good job separating fact from fiction, compared to 40 percent for the news media."[22] That demonstrates how much these developments have hurt public discourse.

The risks of regulation

Government harassment of journalists is a serious problem in many parts of the world. United Nations Human Rights Council Special Rapporteur David Kaye notes that "all too many leaders see journalism as the enemy, reporters as rogue actors, tweeps as terrorists, and bloggers as blasphemers."[23] In Freedom House's most recent report on global press freedoms, researchers found that media freedom was at its lowest point in 13 years and there were "unprecedented threats to journalists and media outlets in major democracies and new moves by authoritarian states to control the media, including beyond their borders."[24]

Journalists can often be accused of generating fake news and there have been numerous cases of legitimate journalists being arrested or their work being subject to official scrutiny. In Egypt, an Al-Jazeera producer was arrested on charges of "incitement against state institutions and broadcasting fake news with the aim of spreading chaos."[25] This was after the network broadcast a documentary criticizing Egyptian military conscription.

Some governments have also moved to create government regulations to control information flows and censor content on social media platforms. Indonesia has established a government agency to "monitor news circulating online" and "tackle fake news."[26] In the Philippines, Senator Joel Villanueva has introduced a bill that would impose up to a five-year prison term for those who publish or

distribute "fake news," which the legislation defined as activities that "cause panic, division, chaos, violence, and hate, or those which exhibit a propaganda to blacken or discredit one's reputation."[27]

Critics have condemned the bill's definition of social networks, misinformation, hate speech, and illegal speech as too broad, and believe that it risks criminalizing investigative journalism and limiting freedom of expression. Newspaper columnist Jarius Bondoc noted "the bill is prone to abuse. A bigot administration can apply it to suppress the opposition. By prosecuting critics as news fakers, the government can stifle legitimate dissent. Whistleblowers, not the grafters, would be imprisoned and fined for daring to talk. Investigative journalists would cram the jails."[28]

In a situation of false information, it is tempting for legal authorities to deal with offensive content and false news by forbidding or regulating it. For example, in Germany, legislation was passed in June 2017 that forces digital platforms to delete hate speech and misinformation. It requires large social media companies to "delete illegal, racist or slanderous comments and posts within 24 hours." Companies can be fined up to $57 million for content that is not deleted from the platform, such as Nazi symbols, Holocaust denials, or language classified as hate speech.[29]

The German legislation's critics have complained that its definition of "obviously" illegal speech risks censorship and a loss of freedom of speech. As an illustration, the law applies the rules to social media platforms in the country with more than 2 million users. Commentators have noted that is not a reasonable way to define relevant social networks. There could be much smaller networks that inflict greater social damage.

Overly restrictive regulation of internet platforms in open societies sets a dangerous precedent and can encourage authoritarian regimes to continue and/or expand censorship.

In addition, it is not always clear how to identify objectionable content.[30] While it is pretty clear how to define speech advocating violence or harm to other people, it is less apparent when talking about hate speech or "defamation of the state." What is considered "hateful" to one individual may not be to someone else. There is some ambiguity regarding what constitutes hate speech in a digital context. Does it include mistakes in reporting, opinion piece commentary, political satire, leader misstatements, or outright fabrications? Watchdog organizations complained that "overly broad language could affect a range of platforms and services and put decisions about what is illegal content into the hands of private companies that may be inclined to over-censor in order to avoid potential fines."[31]

Overly restrictive regulation of internet platforms in open societies sets a dangerous precedent and can encourage authoritarian regimes to continue and/or expand censorship. This will restrict global freedom of expression and generate hostility to democratic governance. Democracies that place undue limits on speech risk legitimizing authoritarian leaders and their efforts to crackdown basic human rights. It is crucial that efforts to improve news quality not weaken journalistic content or the investigative landscape facing reporters.

Other approaches

There are several alternatives to deal with falsehoods and disinformation that can be undertaken by various organizations. Many of these ideas represent solutions that combat fake news and disinformation without endangering freedom of expression and investigative journalism.

Government responsibilities

1) One of the most important thing governments around the world can do is to underline independent, professional journalism. The general public needs reporters who help them make sense of complicated developments and deal with the ever-changing nature of social, economic, and political events. Many areas are going through transformation that I elsewhere have called "megachanges," and these shifts have created enormous anger, anxiety, and confusion.[32] In a time of considerable turmoil, it is vital to have a healthy Fourth Estate that is independent of public authorities.

2) Governments should avoid crackdowns on the news media's ability to cover the news. Those activities limit freedom of expression and hamper the ability of journalists to cover political developments. The United States should set a good example with other countries. If American leaders censor or restrict the news media, it encourages other countries to do the same thing.

3) Governments should avoid censoring content and making online platforms liable for misinformation. This could curb free expression, making people hesitant to share their political opinions for fear it could be censored as fake news. Such overly restrictive regulation could set a dangerous precedent and inadvertently encourage authoritarian regimes to weaken freedom of expression.

News industry actions

2) It is important for news organizations to <u>call out fake news and disinformation</u> without legitimizing them. They can do this by relying upon their in-house professionals and well-respected fact-checkers. In order to educate users about news sites that are created to mislead, nonprofit organizations such as Politifact, Factcheck.org, and Snopes judge the accuracy of leader claims and write stories detailing the truth or lack thereof of particular developments. These sources have become a visible part of election campaigns and candidate assessment in the United States and elsewhere. Research by Dartmouth College Professor Brendan Nyhan has found that labeling a Facebook post as "disputed" reduces the percentage of readers believing the false news by 10 percentage points.[33] In addition, Melissa Zimdars, a communication and media professor at Merrimack College, has created a list of 140 websites that use "distorted headlines and decontextualized or dubious information."[34] This helps people track promulgators of false news.

It is important for news organizations to call out fake news and disinformation without legitimizing them.

Similar efforts are underway in other countries. In Ukraine, an organization known as StopFake relies upon "peer-to-peer counter propaganda" to dispel false stories. Its researchers assess "news stories for signs of falsified evidence, such as manipulated or misrepresented images and quotes" as well as looking for evidence of systematic misinformation campaigns. Over the past few years, it has found Russian social media posts alleging that Ukrainian military forces were engaging in atrocities against Russian nationalists living in eastern Ukraine or that they had swastikas painted on their vehicles.[35] In a related vein, the French news outlet Le Monde has a "database of more than 600 news sites that have been identified and tagged as 'satire,' 'real,' [or] 'fake.'"[36]

Crowdsourcing draws on the expertise of large numbers of readers or viewers to discern possible problems in news coverage, and it can be an effective way to deal with fake news. One example is The Guardian's effort to draw on the wisdom of the crowd to assess 450,000 documents about Parliament member expenses in the United Kingdom. It received the documents but lacked the personnel quickly to analyze their newsworthiness. To deal with this situation, the newspaper created a public website that allowed ordinary people to read each document and designate it into one of four news categories: 1) "not interesting," 2) "interesting but known," 3) "interesting," or 4) "investigate this."[37] Digital platforms allow news organizations to engage large numbers of readers this way. The Guardian, for example, was able "to attract 20,000 readers to review 170,000 documents in

the first 80 hours."[38] These individuals helped the newspaper to assess which documents were most problematic and therefore worthy of further investigation and ultimately news coverage.

Technology company responsibilities

1) Technology firms should <u>invest in technology to find fake news and identify it for users through algorithms and crowdsourcing</u>. There are innovations in fake news and hoax detection that are useful to media platforms. For example, fake news detection can be automated, and social media companies should invest in their ability to do so. Former FCC Commissioner Tom Wheeler argues that "public interest algorithms" can aid in identifying and publicizing fake news posts and therefore be a valuable tool to protect consumers.[39]

In this vein, computer scientist William Yang Wang, relying upon PolitiFact.com, created a public database of 12,836 statements labeled for accuracy and developed an algorithm that compared "surface-level linguistic patterns" from false assertions to wording contained in digital news stories. This allowed him to integrate text and analysis, and identify stories that rely on false information. His conclusion is that "when combining meta-data with text, significant improvements can be achieved for fine-grained fake news detection."[40] In a similar approach, Eugenio Tacchini and colleagues say it is possible to identify hoaxes with a high degree of accuracy. Testing this proposition with a database of 15,500 Facebook posts and over 909,000 users, they find an accuracy rate of over 99 percent and say outside organizations can use their automatic tool to pinpoint sites engaging in fake news.[41] They use this result to advocate the development of automatic hoax detection systems.

Algorithms are powerful vehicles in the digital era and help shape people's quest for information and how they find online material. They can also help with automatic hoax detection, and there are ways to identify fake news to educate

readers without censoring it. According to Kelly Born of the William and Flora Hewlett Foundation, digital platforms should down rank or flag dubious stories, and find a way to better identify and rank authentic content to improve information-gathering and presentation.[42] As an example, several media platforms have instituted "disputed news" tags that warn readers and viewers about contentious content. This could be anything from information that is outright false to material where major parties disagree about its factualness. It is a way to warn readers about possible inaccuracies in online information. Wikipedia is another platform that does this. Since it publishes crowdsourced material, it is subject to competing claims regarding factual accuracy. It deals with this problem by adding tags to material identifying it as "disputed news."

Yet this cannot be relied on by itself. A survey of 7,500 individuals undertaken by David Rand and Gordon Pennycook of Yale University argue that alerting readers about inaccurate information doesn't help much. They explored the impact of independent fact-checkers and claim that "the existence of 'disputed' tags made participants just 3.7 percentage points more likely to correctly judge headlines as false."[43] The authors worry that the outpouring of false news overwhelms fact-checkers and makes it impossible to evaluate disinformation.

Algorithms are powerful vehicles in the digital era, and they can help establish automatic hoax detection systems.

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2) These companies shouldn't make money from fake news manufacturers and should make it hard to monetize hoaxes. It is important to weaken financial incentives for bad content, especially false news and disinformation, as the manufacturing of fake news is often financially motivated. Like all clickbait, false information can be profitable due to ad revenues or general brand-building. Indeed, during the 2016 presidential campaign, trolls in countries such as Macedonia reported making a lot of money through their dissemination of erroneous material. While social media platforms like Facebook have made it harder for users to profit from fake news,[44] ad networks can do much more to stop the monetization of fake news, and publishers can stop carrying the ad networks that refuse to do so.

3) Strengthen online accountability through stronger real-name policies and enforcement against fake accounts. Firms can do this through "real-name registration," which is the requirement that internet users have to provide the hosting platform with their true identity. This makes it easier to hold individuals accountable for what they post or disseminate online and also stops people from hiding behind fake names when they make offensive comments or engage in prohibited activities.[45] This is relevant to fake news and misinformation because of the likelihood that people will engage in worse behavior if they believe their actions are anonymous and not likely to be made public. As famed Justice Louis Brandeis long ago observed, "sunshine is said to be the best of disinfectants."[46] It helps to keep people honest and accountable for their public activities.

Educational institutions

1) Funding efforts to enhance news literacy should be a high priority for governments. This is especially the case with people who are going online for the first time. For those individuals, it is hard to distinguish false from real news, and they need to learn how to evaluate news sources, not accept at face value

everything they see on social media or digital news sites. Helping people become better consumers of online information is crucial as the world moves towards digital immersion. There should be money to support partnerships between journalists, businesses, educational institutions, and nonprofit organizations to encourage news literacy.

2) Education is especially important for young people. Research by Joseph Kahne and Benjamin Bowyer found that third-party assessments matter to young readers. However, their effects are limited. Those statements judged to be inaccurate reduced reader persuasion, although to a lower extent than alignment with the individual's prior policy beliefs.[47] If the person already agreed with the statement, it was more difficult for fact-checking to sway them against the information.

How the public can protect itself

1) Individuals can protect themselves from false news and disinformation by following a diversity of people and perspectives. Relying upon a small number of like-minded news sources limits the range of material available to people and increases the odds they may fall victim to hoaxes or false rumors. This method is not entirely fool-proof, but it increases the odds of hearing well-balanced and diverse viewpoints.

2) In the online world, readers and viewers should be skeptical about news sources. In the rush to encourage clicks, many online outlets resort to misleading or sensationalized headlines. They emphasize the provocative or the attention-grabbing, even if that news hook is deceptive. News consumers have to keep their guard up and understand that not everything they read is accurate and many digital sites specialize in false news. Learning how to judge news sites and protect oneself from inaccurate information is a high priority in the digital age.

Conclusion

From this analysis, it is clear there are a number of ways to promote timely, accurate, and civil discourse in the face of false news and disinformation.[48] In today's world, there is considerable experimentation taking place with online news platforms. News organizations are testing products and services that help them identify hate speech and language that incites violence. There is a major flowering of new models and approaches that bodes well for the future of online journalism and media consumption.

At the same time, everyone has a responsibility to combat the scourge of fake news and disinformation. This ranges from the promotion of strong norms on professional journalism, supporting investigative journalism, reducing financial incentives for fake news, and improving digital literacy among the general public. Taken together, these steps would further quality discourse and weaken the environment that has propelled disinformation around the globe.

Report Produced by **Center for Technology Innovation**

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