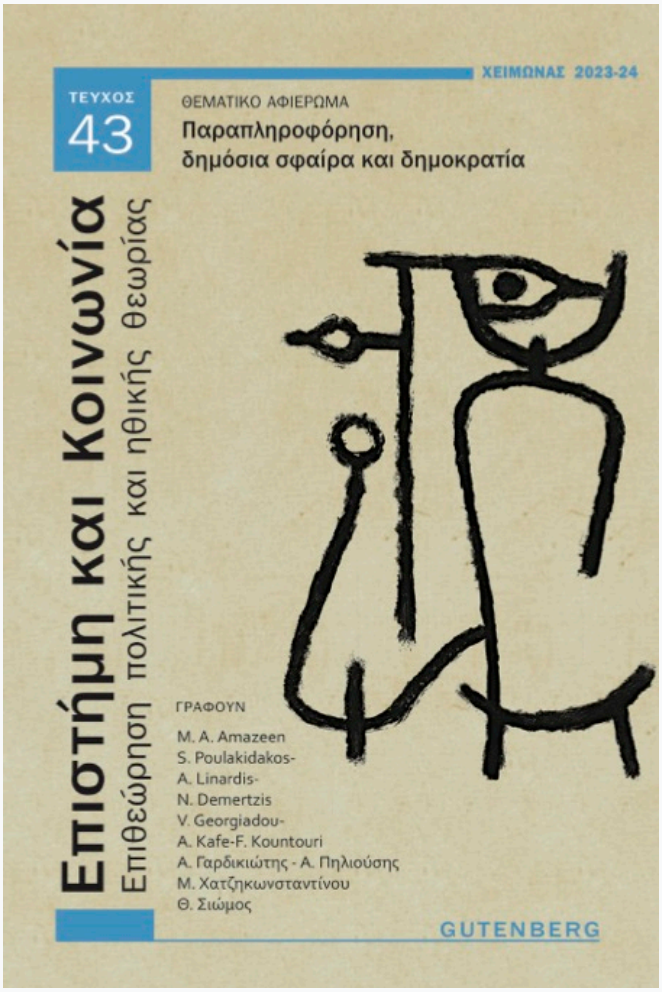
Επιστήμη και Κοινωνία: Επιθεώρηση Πολιτικής και Ηθικής Θεωρίας

Τόμ. 43 (2024)

ΠΑΡΑΠΛΗΡΟΦΟΡΗΣΗ, ΔΗΜΟΣΙΑ ΣΦΑΙΡΑ ΚΑΙ ΔΗΜΟΚΡΑΤΙΑ



The promise and pitfalls of fact-checking in 2022

Michelle Amazeen

Βιβλιογραφική αναφορά:

Amazeen, M. (2024). The promise and pitfalls of fact-checking in 2022. *Επιστήμη και Κοινωνία: Επιθεώρηση Πολιτικής και Ηθικής Θεωρίας*, *43*, 11–33. ανακτήθηκε από https://ejournals.epublishing.ekt.gr/index.php/sas/article/view/36883

*Michelle A. Amazeen**

THE PROMISE AND PITFALLS OF FACT-CHECKING IN 2022

Given the evolution and growth of fact-checking around the globe, practitioners and academics have been gathering with increasing frequency to discuss the state of the enterprise. For instance, the first international scientific one-day conference on fact-checking in Athens, Greece assembled in July 2022, to discuss the contribution of universities and research centers in tackling misinformation (EKKE, 2022). Just weeks prior, the 9th annual global fact-checking summit occurred in Oslo, Norway (Larsen, 2022). In October, two conferences convened. Hong Kong Baptist University hosted the virtual conference, 'Checking the Fact-Checkers: A Global Perspective' (HKBU, 2022). In the U.S., the 4th annual Conference for Truth and Trust Online gathered in Boston, Massachusetts, providing a forum for academics, industry, non-profit organizations, and other stakeholders to deliberate on the problems facing social media platforms and technical solutions —including fact-checking— to understand and address them (Truth, n.d.). Thus, the continued interest in fact-checking suggests periodic updates on how the practice is evolving has merit.The present article is one such effort which briefly addresses the origins of fact-checking followed by an examination of some of the challenges and opportunities facing the enterprise.

* Associate Professor, Department of Mass Communication, Advertising, and Public Relations, Boston University <mamazeen@bu.edu@commscholar>

The Emergence of Fact-checking

THE ORIGINS of 'external' fact-checking —where claims of public figures are vetted for accuracy and publicized— emerged with the nascent world wide web and following the many inaccurate political advertisements from the 1988 U.S. presidential election between then Vice President George H.W. Bush and Massachusetts Governor Michael Dukakis (Amazeen, 2020; Graves & Amazeen, 2019). The co-founder of FactCheck.org, Kathleen Hall Jamieson, was so disgusted with the inaccuracies from the election, she wrote a book about it called *Dirty Politics* (Jamieson, 1993). She also set to work with Brooks Jackson on developing FactCheck.org which they officially launched in 2003. Four years later, they were joined by PolitiFact.com and *The Washington Post's* Fact Checker (Amazeen, 2013; Graves, 2016). These three constitute the elite, continuously operating political fact-checkers in the U.S.[1]

Although modern fact-checkers emerged in the early 21st century, their roots can be traced to a century earlier. Some of the first unofficial fact-checkers were the American muckraking journalists such as Samuel Hopkins Adams who challenged the claims of patent-medicine producers, exposing the products as often ineffective and sometimes deadly as illustrated in a *Collier's* magazine cover from 1905 (Amazeen, 2020; see Figure 1). George Seldes was another U.S. journalist who continued in the muckraking tradition from 1940-1950 with his weekly subscription newsletter, *In Fact: An Antidote for Falsehood in the Daily Press*. He exposed, among other issues, the harms of cigarette smoking and the tobacco industry's suppression of this informa-

1. While Brendan Nyhan's Spinsanity emerged in 2001 with the goal of 'unspinning misleading claims from politicians, pundits, and the press,' it ceased operating by the end of 2004 (Amazeen, 2020; Graves, 2016). Snopes emerged in 1995 as an urban legend myth buster rather than a political fact-checker (Amazeen, 2019).

tion (McCarthy, 1982). Other antecedents to modern fact-checking may have emerged in France with the French weekly investigative newspaper, *Le Canard enchaîné*, which launched in 1915 (Graves, 2016).

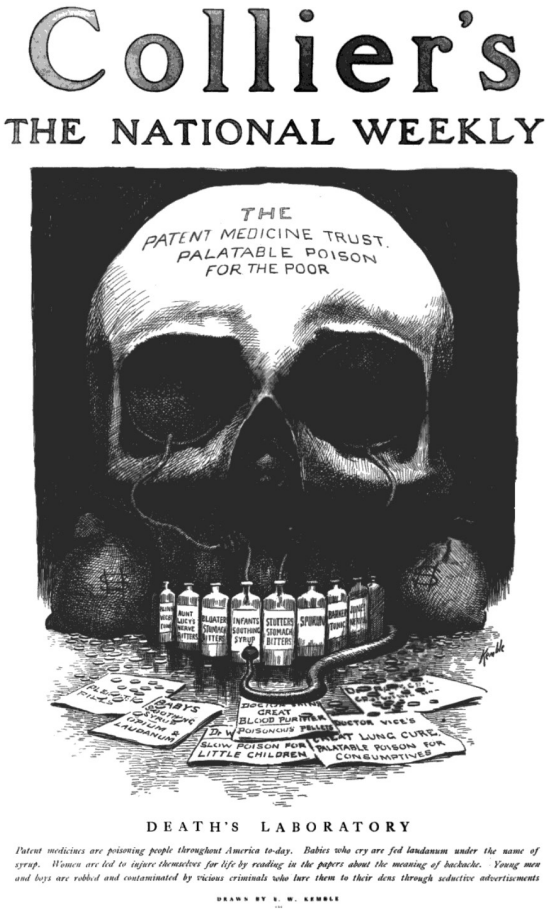


Figure 1. Public domain image of E. W. Kemble's 'Death's Laboratory' from the cover of *Collier's* (June 3, 1905).

Research on the global advent of fact-checking indicates it should be understood as a democracy-building tool that emerges in areas of the world where democratic institutions are perceived

to be weak or are under threat (Amazeen, 2020). Accordingly, with the ongoing spread of fact-checking organizations, it should come as no surprise that trust in media continues to erode. To be sure, the Edelman Trust Barometer (2021) shows that trust in information sources is at an all-time low around the world (see Figure 2). This public opinion polling is consistent with that of other organizations such as Gallup (Brenan, 2021) and Reuters (Newman, 2022) that have found similar declines in institutional trust, including media trust. Thus, as threats to democracy seem to be accelerating around the world (Csaky, 2021), we are seeing the growth of fact-checking along with these threats. Indeed, fact-checking continues to spread internationally. According to the Duke Reporter's Lab database of global fact-checking sites, there were 391 active fact-checkers around the world in June 2021.[2] However, the pace of growth has been slowing. It is too soon to tell whether the slower growth is due to market saturation, COVID-related disruptions, or something more troublesome (Stencel, Ryan, & Luther, 2022).

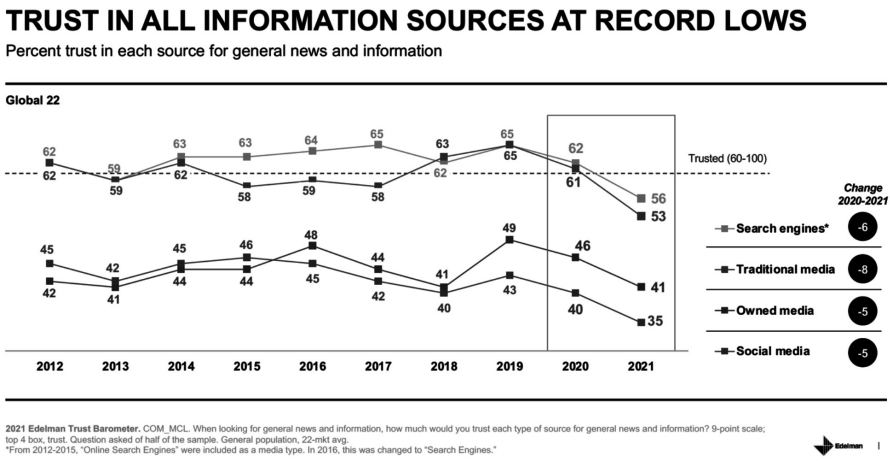


Figure 2. 2021 Edelman Trust Barometer.

2. Two fact-checking organizations are active in Greece: AFP Fact Check and Ellinika Hoaxes.

With this global growth of fact-checking came the need for networking, capacity building, collaboration, and best practices. In 2015, the International Fact-checking Network, or IFCN, was formed (Amazeen, 2020; Graves & Amazeen, 2019) demonstrating the increasing legitimacy and institutionalization of the fact-checking enterprise (Lowrey, 2017). Amidst the fraught U.S. presidential election in 2016, rife with misinformation, the IFCN developed a code of principles to enshrine best practices and to help distinguish reliable fact-checkers from unreliable ones (IFCN, n.d.a). These principles include commitments to 1) non-partisanship and fairness, 2) standards and transparency of sources, 3) transparency of funding and organization, 4) standards and transparency of methodology, and 5) an open and honest corrections policy (IFCN, n.d.b). Despite these efforts at professionalization, however, fact-checkers have had to navigate many potential pitfalls, some of which are highlighted next.

Fact-checking Pitfalls

Awareness

In order for the public to consciously engage with fact-checking, they must first be aware of it. As the number of people who go directly to fact-checking sites is generally small (Amazeen, Vargo, & Hopp, 2019; Shin & Thorson, 2017), fact-checkers rely on amplification of their articles by news outlets (Graves & Cherubini, 2016). Indeed, from its inception, FactCheck.org intended for its fact-checks to be consumed and passed along to the public via journalists as indicated by their slogan 'Please Steal Our Stuff' (Amazeen, 2013). Yet, although many journalists do cite the work of fact-checkers, there is little evidence of any agenda-setting effect on news media (Amazeen, 2015a; Vargo, Guo & Amazeen, 2018). Moreover, even in places where fact-checking has high penetration —such as the U.S.— the public is generally unfamiliar with it (Nyhan & Reifler, 2015; Robertson, Mourão, & Thorson, 2020). Similarly, awareness and familiarity levels of

fact-checking beyond the U.S. context are low, such as in Indonesia (Limilia, Gelgel, & Rahmiaji, 2022) and Europe (Demertzis, Poulakidakos, & Tsekeris, 2022; Lyons, Merola, Reifler & Stoeckel, 2020). Thus, an initial pitfall is limited awareness of or familiarity with fact-checkers. With limited awareness, visits to fact-checking sites will be minimal, which is supported by evidence indicating such (Guess, Nyhan & Reifler, 2020).

Attitudes

Beyond awareness are the evaluative perceptions that the public holds about the practice of fact-checking, which vary widely. A content analysis of social media posts in 2014/2015 about several fact-checking sites (Fact-check.org, Snopes, and StopFake) reveal messages were primarily negative about fact-checker perceived trustworthiness and transparency (Brandtzaeg & Følstad, 2017). In contrast, a representative sample of U.S. adults reveal that although 4 out of 5 of those polled believe fact-checking is an important responsibility of news media (Barthel & Gottfried, 2016), there is a partisan divide with Republicans having significantly less favorable perceptions of fact-checkers than do Democrats (Robertson, et al., 2020). Similarly, in Europe, while overall sentiment of fact-checking is generally favorable, there also are noteworthy geographic and ideological variations. Those in Northern European countries (Germany and Sweden) have more favorable perceptions than in Spain, Italy, Poland, and France. Less favorable perceptions are linked with conservatism, dissatisfaction with democracy, and/or disaffection with the European Union (Lyons et al., 2020).

Usage

As predicted by stage-model frameworks where individuals proceed through distinct stages of awareness, attitudes, and behavior (Lavidge & Steiner, 1961), use of fact-checks correspond to attitudinal and motivational predispositions. Not only do indivi-

duals with liberal ideologies tend to have more favorable perceptions of fact-checkers, but they are also more likely to report visiting fact-checking sites (Robertson et al., 2020). Furthermore, although only a small proportion of people share fact-checks on social media, those who do tend to be ideologically liberal and do so for purposes of reinforcing existing attitudes (Amazeen et al., 2019; Shin & Thorson, 2017). At the same time, while conservatives are less likely to share fact-checks, when they do it is often for the purpose of denigrating the opposition (Shin & Thorson, 2017). Given that a need for orientation —or a greater mass media information-seeking motivation pertaining to specific issues— drives the sharing of fact-checks on social media (Amazeen et al., 2019) along with identity relevant, ideological consumption (Robertson et al., 2020; Shin & Thorson, 2017), opportunities for fact-checkers to influence the public may be fairly limited.

Information Processing and Effectiveness

Momentarily setting aside the pitfalls of selective exposure and engagement of audiences with fact-checking, another enduring challenge has been demonstrating whether fact-checking is effective at correcting misperceptions among those exposed. Comprehensive reviews of the literature indicate that fact-checks can, indeed, be effective in minimizing —although not necessarily eliminating— reliance on misinformation. These effects can last up to several weeks (although not always) and can have downstream effects on outcomes such as sharing misinformation on social media or voting intentions (Ecker et al., 2022; Lewandowsky et al., 2020). The effects of fact-checking in reducing false beliefs have been demonstrated as globally robust, spanning countries such as Argentina, Nigeria, South Africa, and the United Kingdom (Porter & Wood, 2021).

Of course, while fact-checking can be effective, its effectiveness is conditional on many factors including the outcomes one is looking for (e.g., changing versus reinforcing beliefs or behaviors, etc.) as well as how different types of individuals process in-

formation (Ecker et al., 2022; Graves & Amazeen, 2019). A tacit theoretical foundation of fact-checking is the 'knowledge deficit model' (Simis, Madden, Cacciatore, & Yeo, 2016) whereby incorrect beliefs can readily be remedied simply by providing accurate facts. However, while fact-checks can minimize reliance on misinformation, misinformation can often persist in influencing people's thought process to some degree (Ecker et al., 2022). This is known as the continued influence effect (Johnson & Seifert, 1994).

Another theoretical perspective explaining the degree to which fact-checking may or may not be influential involves the goals underlying how people cognitively process information. Rather than having a goal of finding accurate information, some people are motivated to find information that either conforms to their existing beliefs —and thus engage in defensive processing— or that helps them manage a public impression they wish to share as in virtue signaling (Chaiken, Lieberman, & Eagly, 1989; Malka & Adelman, 2022). Yet another perspective is that people cognitively process information superficially, if at all. That is, rather than being motivated to process information in a biased manner (defensively or for impression management purposes), people are cognitive misers and just don't pay attention (Lupia, 2013) or put forth the effort to consider whether information is accurate (Pennycook & Rand, 2019).Thus, while fact-checking can be beneficial, a pitfall is believing fact-checking is effective on everyone. A better understanding is needed of which types of people are prone to misinformation yet are still open to fact-checking.

A promising area of research on this issue is the development of a typology of misinformation-susceptible publics (Krishna, 2017; 2021). Following the motivation-attitude-knowledge framework, an individual's susceptibility to misinformation can be measured by their motivation to engage with a particular topic, their attitude toward that topic, and their level of knowledge about the topic. The typology categorizes people into four different groups: those who are misinformation immune, misinformation vulnerable, misinformation receptive, and misinforma-

tion amplifying. While research indicates no statistical differences between groups based on age, gender, income, or education, political ideology has been one discriminating factor. In particular, misinformation-immune publics are more likely to identify as liberal and misinformation-receptive publics are more likely to identify as ideologically conservative (Krishna, 2021).

While misinformation-amplifying publics comprise the smallest group in the typology, at roughly 3% of the sample, they are high on knowledge deficiency, are highly motivated, and have extreme attitudes about an issue. They are likely not only to accept misinformation, but also to spread it. They are also least likely to be receptive to debunking efforts. Thus, fact-checkers may be wasting their time trying to reach these types of individuals. Likewise, misinformation-receptive publics are also unlikely to be open to debunking efforts. According to this research, it is the misinformation-*vulnerable* publics that may be most open to receiving corrective information. These are individuals who either have extreme attitudes or are highly lacking in topic-related knowledge but not both. The higher levels of one offset susceptibility to misinformation by the lower levels of the other (Krishna, 2021). Further developing our understanding of who is vulnerable to misinformation yet still receptive to fact-checking will allow fact-checkers to be more strategic about which audiences they are trying to reach which is crucial given their limited resources.

Fact-checking Practices

Beyond the efficacy of fact-checking is the longstanding debate about whether the practices of fact-checking are biased (Amazeen, 2013; Graves, 2016). While critics of fact-checking contend it is biased in its claim selection and evaluation methods (Amazeen, 2013; Lim, 2018; Marietta, Barker & Bowser, 2015; Uscinski, 2015; Uscinski& Butler, 2013) there are multiple studies which demonstrate high consistency when the same claims are checked (Amazeen, 2015b; 2016; Vosoughi, Roy, & Aral, 2018).

Yet, bad fact-checks do, certainly, exist. Indeed, finding checkable facts is not as straightforward as it may seem especially when opinions are mixed into statements or political identities influence judgements (Merpert et al., 2018). The IFCN code of principles was developed, in part, to address these concerns, particularly the commitment to disclosing standards and transparency of fact-checking methods (IFCN, n.d.b.). Additional well-designed studies are needed to empirically examine these practices especially among IFCN signatories.

One such study that attempts to examine fact-checking methods is from Tsang, Feng, and Lee (2022). Their research distinguishes between 'partisan' fact-checkers and independent, 'professional' fact-checkers. They find that partisan fact-checkers are more likely 'to criticize a claim for being "wrong" or unjustified due not to factual errors but to questionable framing, narration, contextualization of events, and/or argumentation' (p. 3). Partisan fact-checkers are also less likely than professional fact-checkers to provide source information for the materials they use to check claims. In this way, their research illustrates how fact-checking can be weaponized to illegitimately 'correct' the record while at the same time delegitimizing the practice of the entire fact-checking enterprise. Yet, as noted by Tsang and colleagues (2022), partisan fact-checkers may perform a useful service if they adhere to professional fact-checking standards.

An emerging challenge related to potential bias in fact-checking, particularly as it relates to claim selection, is linked to the social media platform Meta and their Third-Party Fact-Checking Program. This program enables selected fact-checkers which are signatories of the IFCN to identify, review, and rate misinformation appearing on Facebook, Instagram, and WhatsApp (Meta, n.d.) Rather than allowing fact-checkers to independently determine which claims merit scrutiny, increasingly, claim selection is being driven by Meta. In other words, third-party fact-checkers are given the claims that Meta wants fact-checked which is often based upon online virality rather than political significance or newsworthiness (Graves et al., 2022). As such, commercial in-

terests may be taking over democratic interests. Fact-checkers must be wary of this conflict of interest.

Structural Impediments

A final pitfall involves the ways in which the digital media system has been structured. Even if fact-checking were fully optimized, it is no match for the way the digital media ecosystem has evolved to embrace algorithmic amplification and precision targeting (Ecker et al., 2022). Studies have repeatedly shown that misinformation spreads faster and farther on social media than do fact-checks (Friggeri, Adamic, Eckles, & Cheng, 2014; Vosoughi et al., 2018). Moreover, misinformation messages targeted to psychological characteristics of individuals can be highly persuasive (Matz, Kosinski, Nave, & Stillwell, 2017). Thus, the architecture of our media systems actually hinders the potential beneficial effects of fact-checking.

While some of the social media platforms appear to be taking responsibility for addressing the misinformation that is amplified and targeted to users on their sites, they are not being fully transparent about the effectiveness of their efforts. For example, with Meta's Third-Party Fact-Checking program, the metrics needed to determine the extent to which fact-checks are beneficial are not available to participating fact-checkers let alone the public (Full Fact, 2020; Lu, 2019). Thus, future research must focus on the transparency and accountability of social media efforts to address misinformation. For instance, an application programming interface endpoint is needed that reveals the specific actions social media platforms take for messages identified as containing misinformation, such as removal, adding warning labels, or downranking. Clarity is also needed around downranking and shadow banning to reveal who still sees downranked content, whether there is variation across user demographic and psychographic characteristics, and whether mitigation tactics affect how social media users respond (such as liking, sharing, or commenting). Visibility into these actions will help research-

ers assess how media use, media literacy, and political ideology interact with the actions platforms are taking to address misinformation (Pasquetto et al., 2020). Although some research has tried to address these issues, it has been independent of the social platforms (Théro & Vincent, 2022). Moreover, because many fact-checkers are funded, in part, by social media platforms, they may be compromised in their ability to require accountability from these platforms.

Fact-checking Opportunities

Despite these challenges, there are opportunities on the horizon. For instance, fact-checkers have been steadfastly pursuing artificial intelligence [AI] to help them do their jobs more efficiently (Graves & Amazeen, 2019). Indeed, the use of AI and machine learning are being explored by fact-checkers such as Full Fact, Chequeado, and the Duke Reporter's Lab (Graves, 2022). The Duke Reporter's Lab has shared how their automated system, code-named 'Squash' is supposed to work (see Figure 3): it detects politicians' claims —filtering out non-factual claims (via ClaimReview)— and matches the factual claims with related fact-checks (via ClaimBuster). While not a perfect system, the development of these types of processes offers much promise to fact-checkers. However, a large challenge is having enough fact-checks to make these types of systems work (Adair, 2021). Yet, the current state of automated fact-checking and its use of machine learning and natural language processing offers rich opportunities and many pathways for future research (Graves, 2018; Guo, Schlichtkrull, & Vlachos, 2022). Furthermore, public opinion polling suggests that audiences are receptive to AI in journalism. A nationally representative poll in the U.S. indicated that 1 in 3 adults felt it was definitely or probably a good idea to have journalists replaced by AI (Glass, 2022). Moreover, research has shown that when journalists do their work *in tandem* with algorithms, audience perceptions of bias are attenuated (Waddell, 2019). Thus, these findings underscore the promise of AI among fact-checkers.

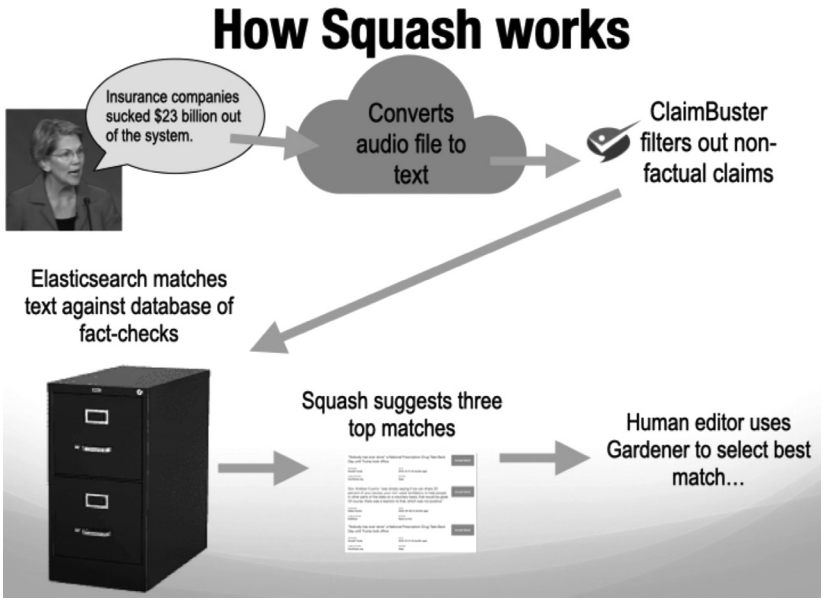


Figure 3. 'Squash works by converting audio to text and then matching the claim against a database of fact-checks' (Adair, 2021).

Another opportunity involves broadening the conception of how fact-checkers can impact society (Dias & Sippitt, 2020). While early fact-checkers were primarily concerned with informing audiences (Amazeen, 2013), second-generation fact-checkers are also concerned with holding accountable those who are making inaccurate claims in order to bring about systemic change (Graves, 2022; Sippitt & Moy, 2020). This observation is a critique of research on fact-checkers that has been conducted to date, indicating it has been too focused on the persuasive effects of changing beliefs in misperceptions rather than addressing other ways fact-checkers may have an impact (Dias & Sippitt, 2020). Yet, there has been some documentation of systemic change that has been brought about by fact-checking. For instance, in 2011, PolitiFact selected as its 'Lie of the Year' the frequent Democratic talking point that Republicans voted to end Medicare in the U.S. According to the Congressional Record, the

number of times this language was used during sessions of Congress was nearly cut in half from 50 to 26 times after the Lie of the Year nomination (Amazeen, 2013). Moreover, in the U.K., fact-checks from Full Fact have led to corrections from a Prime Minister, Members of Parliament, and national newspapers (Sippitt & Moy, 2020). Nonetheless, additional research along these lines affords the opportunity to understand the direct political impacts of fact-checking and the variety of factors that shape them (Graves & Amazeen, 2019).

Finally, as research shows that it is easier to *prevent* misperceptions than correct them (Ecker et al., 2022: Lewandowsky et al., 2020), fact-checkers have an opportunity to teach their audiences how to be more media literate (Çömlekçi, 2022). In 2017, the Finnish fact-checking organization Faktabaari [FactBar] worked with educators to adapt their professional fact-checking methods to cover elections for use in schools in Finland (Neuvonen et al., 2018). This is another example of what second-generation fact-checking might entail to achieve systemic change (Sippitt & Moy, 2020). Similarly, Argentina's fact-checker, Chequeado, has had a strong training and education focus since its inception in 2014. It is now leading a Latin American network of fact-checking trainers that is bringing fact-checking curricula to university students in Latin America (Pennacchio, 2022).

Similar efforts are also taking place in the U.S. with MediaWise teaching people digital media literacy and fact-checking skills to spot misinformation and disinformation, with initiatives specifically designed to engage Gen Z, college students, and older Americans (Poynter, n.d.). Notably, all of these organizations —FactBar, Chequeado, and MediaWise— are signatories of the IFCN. Moreover, other IFCN signatories offer some type of media literacy training, as well, including Africa Check, Demagog (Poland), Faktisk.no (Norway), and Teyit.org (Turkey). Thus, this is a growing area where fact-checkers can go beyond just informing the public, and can actually instill the tools of the trade, so to speak, teaching people how to be more critical consumers of media content (Çömlekçi, 2022).

Given the opportunity this shift in focus may present, it is important to understand whether there is any evidence indicating that teaching fact-checking techniques is beneficial. Indeed, scholars who have been developing curricula for online civic reasoning have shown that teaching lateral reading techniques —a practice employed by professional fact-checkers— significantly increased students' ability to judge the credibility of online content both at the high school level (Wineburg et al., 2022) as well as among college students (Breakstone et al., 2021).

Beyond the education system, another related opportunity for fact-checking partnerships may be with local librarians, at least in countries with robust library infrastructure, as they can be key vectors of connecting patrons with accurate, local information be it political, health-related, or otherwise. Not only has research shown that libraries remain one of the most trusted institutions —at least in the U.S.— at a time when trust is at an all-time low (Geiger, 2017), but an overwhelming majority of respondents to a 2016 Pew survey indicated they believed libraries should have programs to teach digital skills (Horrigan, 2016). This could include literacy skills such as how to navigate and critically evaluate online media information. Indeed, there is precedence in librarians being involved in local U.S. election fact-checking efforts. For instance, in 2012, the Living Voters Guide provided an online discussion forum for understanding Washington state ballot measures by the Seattle Public Library in partnership with City Club and the University of Washington (Joseph, 2012; KPLU, 2012). Thus, bringing together fact-checkers with other institutions committed to empowering communities through knowledge and education may be another effective strategy forconferring systemic change.

Of course, there are many more pitfalls associated with fact-checking than what was outlined in this article. The future of fact-checking also holds great promise; much more than what was conveyed here. But as Demertzis and colleagues (2022) remind us, '… one should not consider fact-checking as a panacea against any type of inaccurate information that hits the public

sphere…' (p. 1). Rather, fact-checking is but one part —a very important part— of tackling misinformation (Ecker et al., 2022). Future efforts should strive to examine how fact-checking may complement other intervention strategies such as prebunking messages, which forewarn individuals about forthcoming misinformation (Amazeen, Krishna, & Eschmann, 2022), or media literacy interventions (Hameleers, 2022). Moreover, collaborations between industry and academia may further efforts in realizing the full potential of automated fact-checking (Graves, 2018) as well as holding platforms to account for their efforts to address misinformation (Pasquetto et al., 2020).

References

Adair, B. (2021). The lessons of Squash, our groundbreaking automated fact-checking platform. Duke Reporter's Lab, June 28. https://reporterslab.org/the-lessons-of-squash-our-groundbreaking-automated-fact-checking-platform/

Amazeen, M. A. (2013, October). Making a difference: A critical assessment of fact-checking in 2012. New America Foundation Media Policy Initiative Research Paper. https:// www. newamerica.org/new-america/making-a-difference/

Amazeen, M. A. (2015a). Developing an ad reporting typology: A network analysis approach to newspaper and fact-checker coverage of the 2008 presidential election. *Journalism & Mass Communication Quarterly*, *92*(3), 617-641. https://doi.org/10.1177/107769901 5574099

Amazeen, M.A. (2015b) Revisiting the Epistemology of Fact-Checking, *Critical Review*, 27:1, 1-22, DOI: 10.1080/08913811.2014.993890

Amazeen, M. A. (2016). Checking the fact-checkers in 2008: Predicting political ad scrutiny and assessing consistency. *Journal of Political Marketing*, *15*(4), 433-464. https://doi.org/ 10.1080/15377857.2014.959691

Amazeen, M. A. (2019). Practitioner perceptions: Critical junctures and the global emergence and challenges of fact-checking. *International Communication Gazette*, 81(6-8), 541-561. https://doi.org/10.1177/1748048518817674

Amazeen, M. A. (2020). Journalistic interventions: The structural factors affecting the global emergence of fact-checking. *Journalism*, 21(1), 95-111. doi:10.1177/1464884917730217

Amazeen, M. A., Krishna, A. & Eschmann, R. (2022). Cutting the bunk: Comparing the solo and aggregate effects of prebunking and debunking Covid-19 vaccine misinformation. *Science Communication, 44*(4), 387-417. https://doi.org/10.1177/10755470221111558

Amazeen, M. A., Vargo, C., & Hopp, T. (2019). Reinforcing attitudes in a gatewatching news era: Individual-level antecedents to sharing fact-checks on social media. *Communication Monographs, 86*(1), 112-132. doi.org/10.1080/03637751.2018.1521984

Barthel, M., & Gottfried, J. (2016, November 18). Majority of U.S. adults think news media should not add interpretation to the facts. Pew Research Center. https:// www. pewresearch.org/fact-tank/2016/11/18/news-media-interpretation-vs-facts/

Breakstone, J., Smith, M., Connors, P., Ortega, T., Kerr, D., & Wineburg, S. (2021). Lateral reading: College students learn to critically evaluate internet sources in an online course. *Harvard Kennedy School (HKS) Misinformation Review*, 2(1). https://doi.org/10.37016/ mr-2020-56

Brenan, M. (2021). Americans' trust in media dips to second lowest on record. Gallup. https:// news.gallup.com/poll/355526/americans-trust-media-dips-second-lowest-record.aspx

Chaiken, S., Liberman, A., & Eagly, A.H. (1989). Heuristic and systematic information processing within and beyond the persuasion context. In J.S. Uleman, & J.A. Bargh (Eds.), *Unintended Thought* (pp. 212-252). New York: Guilford.

Çömlekçi, M. (2022). Why do fact-checking organizations go beyond fact-checking? A leap toward media and information literacy education. *International Journal of Communication, 16*, 4563-4583. https://ijoc.org/index.php/ijoc/article/view/19728

Csaky, Z. (2021). Nations in transit 2021: The antidemocratic turn. Freedom House. https:// freedomhouse.org/report/nations-transit/2021/antidemocratic-turn

Demertzis, N., Poulakidakos, S., & Tsekeris, C. (2022, April). Public communication disruption and information accuracy. GPSG Working Paper #36. https:// www.academia.edu/ download/83440933/demertzis_poulakidakos_tsekeris_public_communication_disruption_and_information_accuracy_1.pdf

Dias, N., & Sippitt, A. (2020). Researching fact checking: Present limitations and future opportunities. *The Political Quarterly*, 91(3), 605-613. https://doi.org/10.1111/1467-923X.12892

Ecker, U. K. H., Lewandowsky, S., Cook, J., Schmid, P., Fazio, L. K., Brashier, N., Kendeou, P., Vraga, E. K., & Amazeen, M. A. (2022). The psychological drivers of misinformation belief and its resistance to correction. *Nature Reviews Psychology, 1*, 13-29. https:// doi.org/10.1038/s44159-021-00006-y

Edelman Trust Barometer (2021). Global report. https://www.edelman.com/trust/2021-trust-barometer

EKKE. (2022, June 25). 1st international scientific one-day conference on fact-checking in Greece. National Centre for Social Research. https://www.ekke.gr/en/announcement-front/1i-diethnis-epistimoniki-imerida-fact-checking-stin-ellada

Friggeri, A., Adamic, L. A., Eckles, D., & Cheng, J. (2014). Rumor cascades. In International AAAI Conference on Web and Social Media. Palo Alto, CA: Association for the Advancement of Artificial Intelligence.

Full Fact. (2020). Report on the Facebook Third-Party Fact-Checking programme. https:// fullfact.org/blog/2020/dec/full-fact-publishes-new-report-on-facebooks-third-party-fact-checking-programme/

Geiger, A.W. (2017, August 30). Most Americans —especially millennials— say libraries can help them find reliable, trustworthy information. Pew Research Center. https://www. pewresearch.org/fact-tank/2017/08/30/most-americans-especially-millennials-say-libraries-can-help-them-find-reliable-trustworthy-information/

Glass, B. (2022). Survey: Generations, genders differ when it comes to AI replacing people for some jobs. Boston University Media and Technology Survey, September 26. https:// www.bu.edu/com/articles/survey-generations-genders-differ-when-it-comes-to-ai-replacing-people-for-some-jobs/

Graves, L. (2016). *Deciding What's True: The Fact-Checking Movement in American Journalism*.New York: Columbia University Press.

Graves, L. (2018). Understanding the promise and limits of automated fact-checking. In Reuters Institute for the Study of Journalism (Reuters Institute for the Study of Journalism Factsheets). Reuters Institute for the Study of Journalism.

Graves, L. (2022). Fact-checking movement. In G. A. Borchard (Ed.) *The SAGE Encyclopedia of Journalism* (2nd ed.). Thousand Oaks: SAGE Publications, Inc. https://dx.doi.org/10. 4135/9781544391199.n155

Graves, L. & Amazeen, M. A. (2019). Fact-checking as idea and practice in journalism. In J. Nussbaum (Ed.) *Oxford Research Encyclopedia of Communication*. Oxford University Press. http://oxfordre.com/communication/view/10.1093/acrefore/9780190228613.001.0001/acrefore-9780190228613-e-808

Graves, L., & Cherubini, F. (2016). The rise of fact-checking sites in Europe. Oxford,U.K.: Reuters Institute for the Study of Journalism, University of Oxford.

Graves, L., Bélair-Gagnon, V., Larsen, R., & Kalsnes, B. (2022). What are fact-checkers for? The divide between 'fact-checking' and 'debunking' in a growing transnational field. Paper presented to the Journalism Studies Division at the International Communication Association annual conference, Paris, France, May, 2022.

Guess, A. M., Nyhan, B., & Reifler, J. (2020). Exposure to untrustworthy websites in the 2016 US election. *Nature Human Behaviour*, 4(5), 472-480.

Guo, Z., Schlichtkrull, M., & Vlachos, A. (2022). A survey on automated fact-checking. *Transactions of the Association for Computational Linguistics*, 10, 178-206. doi: https:// doi.org/10.1162/tacl_a_00454

HKBU. (2022). Checking the fact-checkers: A global perspective. [Virtual Conference.] https:// www.comm.hkbu.edu.hk/aimr/checking-the-fact-checkers/index.php#program

Hameleers, M. (2022). Separating truth from lies: Comparing the effects of news media literacy interventions and fact-checkers in response to political misinformation in the US and Netherlands. *Information, Communication & Society*, 25(1), 110-126, DOI:10.1080/ 1369118X.2020.1764603

Horrigan, J.B. (2016, September 9). Libraries 2016. Pew Research Center. https://www. pewresearch.org/internet/2016/09/09/libraries-2016/

IFCN. (n.d.a). The code and the platforms. https://ifcncodeofprinciples.poynter.org/know-more/the-code-and-the-platforms

IFCN. (n.d.b). The commitments of the code of principles. https://ifcncodeofprinciples.poynter. org/know-more/the-commitments-of-the-code-of-principles

Jamieson, K. H. (1993). *Dirty politics: Deception, distraction, and democracy*. New York: Oxford University Press.

Johnson, H. M., & Seifert, C. M. (1994). Sources of the continued influence effect: When misinformation in memory affects later inferences. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 20*(6), 1420-1436. https://doi.org/10.1037/0278-7393.20.6.1420

Joseph, N. (2012, October) Living Voters Guide: A resource for discussion, civic and civil. Perspectives Newsletter. https://artsci.washington.edu/news/2012-10/living-voters-guide

KPLU News Staff (2012, October 26). Living Voters Guide – Just the facts. https://www.knkx. org/post/living-voters-guide-just-facts

Krishna, A. (2017). Motivation with misinformation: Conceptualizing lacuna individuals and publics as knowledge deficient, issue-negative activists. *Journal of Public Relations Research*, *29*, 176-193.

Krishna, A. (2021). Lacuna publics: Advancing a typology of disinformation-susceptible publics using the motivation-attitude-knowledge framework.*Journal of Public Relations Research*, *33*(2), 63-85.

Larsen, R. (2022, July 9). Global Fact 9 recap: First academic track + record attendance. Oslo Metropolitan University. https://uni.oslomet.no/scam/2022/07/09/global-fact-9-recap-first-academic-track-record-attendance/

Lavidge, R. J., & Steiner, G. A. (1961). A model for predictive measurements of advertising effectiveness. *Journal of Marketing*, 25(6), 59-62.

Lewandowsky, S., Cook, J., Ecker, U. K. H., Albarracín, D., Amazeen, M. A., Kendeou, P., Lombardi, D., Newman, E. J., Pennycook, G., Porter, E. Rand, D. G., Rapp, D. N., Reifler, J., Roozenbeek, J., Schmid, P., Seifert, C. M., Sinatra, G. M., Swire-Thompson, B., van der Linden, S., Vraga, E. K., Wood, T. J., Zaragoza, M. S. (2020). The Debunking Handbook 2020. Available at https://sks.to/db2020. DOI:10.17910/b7.1182

Lim, C. (2018). Checking how fact-checkers check. *Research & Politics*, *5*(3). https://doi. org/10.1177/2053168018786848

Limilia, P., Gelgel, N. M. R. A., & Rahmiaji, L. R. (2022). Public perception and attitude on fact-checking: A case study from Indonesia. Proceedings of International Conference on Communication Science, 2(1), 140-145. DOI: https://doi.org/10.29303/iccsproceeding. v2i1.85

Lowrey, W.(2017).The emergence and development of news fact-checking sites.*Journalism Studies*,18(3), 376-394. DOI: 10.1080/1461670X.2015.1052537

Lu, D. (2019, July 30). Facebook's fact-checking process is too opaque to know if it's working. *New Scientist*. https://www.newscientist.com/article/2211634-facebooks-fact-checking-process-is-too-opaque-to-know-if-its-working/

Lupia, A. (2013). Communicating science in politicized environments. Proceedings of the National Academy of Sciences, 110 (Supplement 3), 14048-14054. https://doi.org/ 10.1073/pnas.1212726110

Lyons, B., Mérola, V., Reifler, J., & Stoeckel, F. (2020). How politics shape views toward fact-checking: Evidence from six European countries. *The International Journal of Press/Politics*, *25*(3), 469-492. https://doi.org/10.1177/1940161220921732

Malka, A., & Adelman, M. (2022). Expressive survey responding: A closer look at the evidence and its implications for American democracy. *Perspectives on Politics*, 1-12. https:// doi. org/10.1017/S1537592721004096

Marietta, M., Barker, D. C., & Bowser, T. (2015). Fact-checking polarized politics: Does the fact-check industry provide consistent guidance on disputed realities? *The Forum*, 13(4), 577-596.

Matz, S. C., Kosinski, M., Nave, G. & Stillwell, D. J. (2017). Psychological targeting as an effective approach to digital mass persuasion. PNAS, 114(48), 12714-12719. https:// doi.org/10.1073/pnas. 1710966114

McCarthy, C. (1982, May 19). George Seldes, In Fact. *The Washington Post*. https://www. washingtonpost.com/archive/lifestyle/1982/05/19/george-seldes-in-fact/6a786416-6815-49de-9503-dad4c7d4787b/

Merpert, A., Furman, M., Anauati, M. V., Zommer, L., & Taylor, I. (2018). Is that even checkable? An experimental study in identifying checkable statements in political discourse. *Communication Research Reports*, 35(1), 48-57. DOI: 10.1080/08824096.2017.1366303

Meta. (n.d.). Meta's third-party fact-checking program. https://www.facebook.com/formedia/ mjp/programs/third-party-fact-checking

Neuvonen, M., Kivinen, K. &Salo, M. (2018). *Fact-checking for educators and future voters*. FactBar EDU. https://bit.ly/316zZZt

Newman, N. (2022, June 15). Overview and key findings of the 2022 Digital News Report. Reuters Institute. https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2022/dnr-executive-summary

Nyhan, B., & Reifler, J. (2015). Estimating fact-checking's effects: Evidence from along-term experiment during campaign 2014. Arlington, VA: American Press Institute. https:// www.americanpressinstitute.org/wp-content/uploads/2015/04/Estimating-Fact-Checkings-Effect.pdf

Pasquetto, I., Swire-Thompson, B., Amazeen, M.A., Benevenuto, F., Brashier, N.M., Bond, R.M., Bozarth, L.C., Budak, C., Ecker, U.K.H., Fazio, L.K., Ferrara, E., Flanagin, A.J., Flammini, A., Freelon, D., Grinberg, N., Hertwig, R., Jamieson, K.H., Joseph, K., Jones, J.J. …Yang, K.C. (2020). Tackling misinformation: What researchers could do with social media data. *Harvard Kennedy School (HKS) Misinformation Review*, 1(8). DOI: https://doi.org/10.37016/mr-2020-49

Pennacchio, K. (2022). Network of fact-checking trainers created to bridge the training gap in Latin American universities. Knight Center for Journalism in the Americas, June 17. https://latamjournalismreview.org/articles/network-of-fact-checking-trainers-created-to-bridge-the-training-gap-in-latin-american-universities/

Pennycook, G., & Rand, D.G. (2019). Lazy, not biased: Susceptibility to partisan fake news is better explained by lack of reasoning than by motivated reasoning. *Cognition, 188*, 39-50. https://doi.org/10.1016/j.cognition.2018.06.011

Porter, E., & Wood, T. J. (2021). The global effectiveness of fact-checking: Evidence from simultaneous experiments in Argentina, Nigeria, South Africa, and the United Kingdom. *PNAS*, 118(37), e2104235118. https://doi.org/10.1073/pnas.2104235118

Poynter. (n.d.). What is MediaWise? https://www.poynter.org/mediawise/

Robertson, C. T., Mourão, R. R., & Thorson, E. (2020). Who Uses Fact-Checking Sites? The Impact of Demographics, Political Antecedents, and Media Use on Fact-Checking Site Awareness, Attitudes, and Behavior. *The International Journal of Press/Politics*, *25*(2), 217-237. https://doi.org/10.1177/1940161219898055

Shin, J., & Thorson, K. (2017). Partisan selective sharing: The biased diffusion of fact-checking

messages on social media. *Journal of Communication*, 67, 233-255. doi:10.1111/jcom.12284

Simis, M. J., Madden, H., Cacciatore, M. A., & Yeo, S. K. (2016). The lure of rationality: Why does the deficit model persist in science

communication? *Public Understanding of Science*, *25*(4), 400-414. https://doi.org/10.1177/0963662516629749

Sippitt, A., & Moy, W. (2020). Fact Checking is about what we change not just who we reach. *The Political Quarterly*, 91(3), 592-595. https://doi.org/10.1111/1467-923X.12898

Stencel, M., Ryan, E., & Luther, J. (2022, June 17). Fact-checkers extend their global reach with 391 outlets, but growth has slowed. Duke Reporters' Lab.https://reporterslab.org/fact-checkers-extend-their-global-reach-with-391-outlets-but-growth-has-slowed/

Théro, H., & Vincent, E. M. (2022). Investigating Facebook's interventions against accounts that repeatedly share misinformation. Information Processing & Management, 59(2), 102804. https://doi.org/10.1016/j.ipm.2021.102804

Truth and Trust Online. (n.d.) What is Truth and Trust Online? https://truthandtrustonline.com/

Tsang, N. L. T., Feng, M., & Lee, F. L. F. (2022). How fact-checkers delimit their scope of practices and use sources: Comparing professional and partisan practitioners. *Journalism*. https://doi.org/10.1177/14648849221100862

Uscinski, J.E., & Butler, R.W. (2013). The epistemology of fact checking. *Critical Review*, 25(2), 162-80. https://www.tandfonline.com/doi/full/10.1080/08913811.2013.843872? src=recsys

Uscinski, J.E. (2015). The epistemology of fact checking (is still naïve): Rejoinder to Amazeen, *Critical Review*, 27(2), 243-252. DOI: 10.1080/08913811.2015.1055892

Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359(6380), 1146-1151. DOI: 10.1126/science.aap955

Waddell, T. F. (2019). Can an Algorithm Reduce the Perceived Bias of News? Testing the Effect of Machine Attribution on News Readers' Evaluations of Bias, Anthropomorphism, and Credibility. *Journalism & Mass Communication Quarterly*, *96*(1), 82-100. https://doi. org/10.1177/1077699018815891

Wineburg, S., Breakstone, J., McGrew, S., Smith, M. D., & Ortega, T. (2022). Lateral reading on the open Internet: A district-wide field study in high school government classes. *Journal of Educational Psychology, 114*(5), 893-909. https://doi.org/10.1037/edu0000740