

BEST PRACTICES AND GUIDELINES FOR FAKE NEWS MITIGATION SECTION-BY-SECTION

RATIONALE

Fake news is a tough problem to tackle. Its real-world impact and influence on public opinion has produced a variety of different harms, such as: tainting individual reputations; causing physical safety issues; eroding civic discourse; and, arguably, even the eroding of the democratic process. While its harmful effects seem obvious, ‘fake news’ itself is hard to define, and therefore challenging to identify, much less to proscribe.

We define **FAKE NEWS** as content that:

- (1) Characterizes false information as facts; and
- (2) Is intended to mislead the reader into thinking the content is true, rather than opinion, satire, or parody.

Our definition strives to target the most extreme examples of misinformational content, whether it is produced and disseminated for profit, for political ends, or merely as the result of shoddy information gathering. Our definition also aims to distinguish content that has been traditionally protected by the First Amendment – such as opinion, satire, and parody – from content that is designed to manipulate (or is erroneous). Opinion and satire may rely on certain characterizations of fact, whether because they reflect the author’s specific viewpoint, or because satirically characterizing false facts as true illustrates the author’s opinion. A polarizing op-ed that is clearly identified as an opinion piece – or an article from *The Onion* or *The New Yorker’s* Andy Borowitz – is not ‘fake news,’ but robust components of free expression online. At the same time, lack of clarity as to what is opinion, what is satire, and what is a manipulative or erroneous characterization of false facts still compounds the problems faced by modern readers. Our solutions, and the principles that shape them, target the kinds of content we believe are actively harmful (‘fake news’), and enable readers to sort the malicious from the creative.

Due to the sensitive nature of the press, closely associated with First Amendment protections, we identify four principles – Respect for Freedom of Expression, Accountability, Transparency, and Respect for Context – that inform our five recommendations. These recommendations are: (1) Automatic News Verification, (2) Citation Standards, (3) Delivering Corrections, (4) Changing Visibility, and (5) Organizational Collaboration. Each principle and recommendation is aimed at players in the ecosystem in an effort to mitigate the harmful effects of fake news on the public.

§1. PRINCIPLES

To begin dismantling the real-world effects of fake news, we believe four overarching principles should inform the solutions employed by the stakeholders of the news ecosystem. These are: Respect for Freedom of Expression, Accountability, Transparency, and Respect for Context. The solutions we provide, supported by these principles, will address to whom these Guidelines are directed; to what end; and by what means.

Principle 1. Respecting Freedom of Expression

No provisions here should be construed or interpreted as restricting one's ability to express or publish opinion. The proliferation of free expression that has been facilitated by the Internet should be celebrated, rather than choked off. Our recommendations are shaped by a keen awareness that heavy-handed measures to stop malicious content could have the effect of limiting free expression, whether through the efforts of a well-intentioned platform operator hoping to diminish the spread of fake news, or in the hands of a political leader hoping to discredit information with which he disagrees. Although players in the digital ecosystem wield immense power to encourage, restrict, or skew how people communicate, all our recommendations in adopting standards and processes derive their legitimacy by respecting the freedom of expression. These recommendations and best practices aim to create a more robust ecosystem — such as in the case of disputed facts or correction notifications — without unduly impinging on any individual's ability to publicly express ideas.

However, expressing ideas is distinct from covering “news,” which is often a fact-distribution exercise. Covered entities should separate the responsibilities associated with freedom of expression (such as curbing hate speech or harassment) with the responsibilities associated with providing a forum for information that presents itself as news based on empirical facts. Publishers and platform operators are especially important in this regard, as their power in shaping public opinion is immeasurable.

Principle 2. Accountability

Covered entities should be accountable to their users and the public for their role in shaping public discourse. Users, publishers, and content distributors at every level of news dissemination are responsible for their product, and for the ways those products mold the online public forum. News organizations serve a crucial function in democratic discourse, and while they should be afforded the necessary protections regardless of their ideological positions, they also have an obligation to be accountable to their readers. Readers should be treated as citizens, not just consumers, and all covered entities would be held accountable for straying from egregious business practices that bankrupt discourse.

Social media has disrupted the traditional relationship between publishers and distributors; where these functions used to be performed by the same organization, they are now performed by different entities. This division of labor serves a public interest in bringing down the cost of delivering news, but scrambles the incentives; news publishers might be interested in delivering a rigorous and sophisticated article, while social media distribution prioritizes user engagement over substance. Social media platforms should be held

accountable for providing the modern equivalent of the public forum, and all the responsibility that that brings with it.

Principle 3. *Transparency*

Covered entities should be forthright about how their products contribute to the stream of information reaching consumers, and strive to enable the public to understand how that process works. Traditional news media relies on transparency for legitimacy, such as stating its board of editors, registering its supporters to cover political events, or publishing letters that disagree with its editorials. The digital system, although more open in membership, is opaque in its operational mechanisms. All actors across all functions in the digital news ecosystem need transparency to prevent the problems of fake news from further festering. There is a baseline need for platform operators to protect trade secrets, and prevent malicious actors from gaming their platforms; too much transparency could exacerbate the very problems these Guidelines seek to alleviate. But certain approaches – such as publishing a set of principles that govern a platform feed, or releasing the variables used to prioritize posts – will keep the platform operators accountable for the roles they have taken on.

Principle 4. *Respect for Context*

Respect for context applies on two levels. First, different stakeholders have played different roles in the development of the fake news problem, and are differently situated to correct it. While we set forth a range of principles and techniques that apply to the entire digital news ecosystem, in many cases it would be inappropriate to hold individual bloggers to the same standard we hold *The New York Times*. Second, we believe that providing greater context for posts – whether in the substance provided by the publisher, or through the various structural mechanisms a platform operator might employ – will better facilitate digital literacy without putting any one entity in the role of an arbiter of truth. To better allow readers to sort fact from fiction, all parties should provide more context for the claims readers see. A distributor like Facebook might flag the credibility and misleading context present in an article, while publishers like *The New York Times* have a greater responsibility to make easily accessible the sources for their claims (as described below in the Citation Standards section). Providing context creates a robust digital news system that is commensurate with the public trust placed in it.

§2. DEFINITIONS



PUBLISHER: A Publisher is any content provider, ranging from an individual blogger to an established news outlet (like *The New York Times*). Publishers have their own editorial team and processes, and have different target audiences, ranging from tabloids and gossip, to international news and political affairs. Traditionally, the publisher is in charge of both producing and distributing content. But as information is increasingly circulated online – whether in the form of the New York Times website, a CNN story posted on Twitter, or a Facebook instant article – the publisher is no longer the sole (or even the primary) distributor of content.



PLATFORM: A Platform is any forum created by a non-tangible medium, such as a website, mobile app, radio station, or other portal, that can provide for the dissemination and discussion of information. This should encompass the range of services that allows information to circulate in the modern news ecosystem, with a focus on the impact of social media platforms.



PLATFORM OPERATOR: Platform Operators are any entity that provides an avenue for the distribution of information. This can include a television channel, a website or social media service, a subscription service, or a mobile app. The Platform Operator is the organization that administers the platform. Platform Operators, like Twitter or Facebook, provide content while also providing an avenue for many other services. For the purposes of mitigating fake news, we focus on the distribution function of platforms, leaving untouched their other functions as platform operators.



FACT-CHECKER: Fact-Checkers are any organization, typically not-for-profit, whose mission is to investigate claims made by journalists, institutions, and public figures to promote an objectively accurate and productive civic discourse. These organizations' mission is to investigate claims made by publications and public figures in order to keep assertions truthful.

§3. FIVE BEST PRACTICE RECOMMENDATIONS

The scope of these Guidelines is modest. They are not intended to eradicate the problems of fake news, but to diminish its effects, and prevent similar problems from developing in the future. By suggesting structural techniques that encourage digital literacy, our objective is to limit the spread of the most egregious forms of fake news, without censoring other forms of expression, or designating any one entity as the arbiter of truth. However, given the complexity of the problem, some of the factors that allowed for the spread of fake news can only be partially addressed. For example, the idea that overly personalized, platform-driven news delivery has exacerbated political polarization on both sides of the aisle, has been challenged as simplistic; a more nuanced

understanding of exactly how platform delivery impacts reader polarization may be warranted.¹ In addition, our Guidelines primarily address how new information systems have facilitated the spread of fake news, but are not focused on how mainstream media outlets may spur fake news through disingenuous characterization of facts, or on how misinformation circulates offline.² While fake news is a difficult (and moving) target, we believe our proposals will help mitigate the most severe forms of it, and will do so without creating new problems, particularly those associated with censorship.

AUTOMATIC NEWS VERIFICATION

Automatic News Verification refers to a set of machine-learning tools that can be used to streamline the process of verifying and authenticating information with limited human oversight.

The first step in any fake news mitigation effort is to determine whether an article, speech, or claim is, in fact, ‘fake.’ Currently, this process is done by humans employed at third-party fact-checking organizations who painstakingly trace claims to original sources, like public records. Automating parts of the fact-checking process would not only speed up the claim review process, but also substantially increase the breadth of claims these organizations could review.³

In the short term, the most promising approaches to identifying fake news articles utilize “article metadata:” information about the way users interact with the article (e.g. how often it was shared over time, and by whom), rather than its actual content. A great deal of research has shown that rumors can be accurately detected by analyzing retweets and mentions on Twitter,⁴ and that such metadata can often predict rumor veracity.⁵ While such approaches are not yet reliable enough to serve as proof of ‘fakeness’ on their own (and suspected falsehoods would always require a human fact-checker to double-check the claim’s content), fast rumor detection would allow fact-checkers to quickly identify the most prevalent and damaging claims. We recommend that digital news platforms, which have access to article/claim metadata as well as software expertise, create a means for publishing current rumors. This could look similar to existing ‘trending topics’ pages, or be a specific partnership with fact-checkers.

¹Yochai Benkler, Robert Faris, Hal Roberts, and Ethan Zuckerman, *Study: Breitbart-led right-wing media ecosystem altered broader media agenda*, Col. Journalism Rev. (March 2017), <https://www.cjr.org/analysis/breitbart-media-trump-harvard-study.php> (arguing that the filtering phenomenon is insufficient to explain fake news) (“Our analysis challenges a simple narrative that the internet *as a technology* is what fragments public discourse and polarizes opinions, by allowing us to inhabit filter bubbles or just read “the daily me.” If technology were the most important driver towards a “post-truth” world, we would expect to see symmetric patterns on the left and the right. Instead, different internal political dynamics in the right and the left led to different patterns in the reception and use of the technology by each wing. While Facebook and Twitter certainly enabled right-wing media to circumvent the gatekeeping power of traditional media, the pattern was not symmetric.”); see also, Danah Boyd, *Google and Facebook Can’t Just Make Fake News Disappear*, BACKCHANNEL (March 27, 2017), <https://backchannel.com/google-and-facebook-cant-just-make-fake-news-disappear-48f4b4e5f8e8> (arguing that many solutions targeting platform architecture and internal reforms by technology companies are inadequate).

² Benkler et al., *supra* note 1.

³ For a thorough review of current automatic fact-checking tools and approaches, see Full Fact’s report, *The State of Automated Factchecking* (accessed April 24, 2017) https://fullfact.org/media/uploads/full_fact-the_state_of_automated_factchecking_aug_2016.pdf.

⁴ Zhiwei Jin, Juan Cao, Han Guo, Yongdong Zhang, Yu Wang, Jiebo Luo, *Rumor Detection on Twitter Pertaining to the 2016 U.S. Presidential Election*, arXiv, (March 21, 2017) <https://arxiv.org/abs/1701.06250>.

⁵ Zhiwei Jin, Juan Cao, Yongdong Zhang, Jiebo Luo, *News Verification by Exploiting Conflicting Social Viewpoints in Microblogs*, Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence (AAAI-16), (March 21, 2017) <http://www.aaai.org/ocs/index.php/AAAI/AAAI16/paper/view/12128/12049>; see also, *MisinfoCon: A Summit and Creative Studio on Misinformation*, NIEMAN REPORTS, (March 8, 2017) <https://vimeo.com/205615758>.

In the long term, there may be a different and potentially more powerful strategy: use machines that examine article content directly. This approach would have a computer go through the same process as its human counterpart: parsing a claim into its constitutive facts, locating an ‘objective source’ for those facts, and comparing the two to confirm or refute the claim. Unfortunately, such a level of language understanding is currently beyond the capabilities of modern computers.⁶ Still, research in this field is progressing rapidly; already, Factmata (a digital fact-checking startup backed by Google’s Digital News Initiative) has created a tool to check simple statistical claims such as “[o]ur aid work in Somalia is paying dividends — only 0.2% of the population is severely malnourished.”⁷ We recommend that publishers, platforms, fact-checkers, and governments invest in automated fact-checking research (like the Fake News Challenge, which hosts a competition for automatic fake news detection)⁸ and collaborate with researchers to provide data and news-industry-specific expertise.

Finally, fact-checkers can use automatic verification to find new articles which make claims previously debunked in other articles. Digital tools already accelerate this process: a simple Google search for a claim can often find numerous articles discussing it, and Full Fact (a British fact-checking service) is currently building a news-claim search engine to easily find articles making a searched-for claim.⁹ We recommend that fact-checking organizations invest in automating this, and other aspects of their workflow, to leverage these emerging fact-checking technologies. This will reduce the costs, effort, and time they spend fact-checking, and free up their employees to focus on the crucial tasks only they can do in helping to stem the tide of fake news.

CITATION STANDARDS

The origins of an article’s claims are arguably the most important part of a reader’s ability to evaluate the credibility of a claim on their own. We believe that journalists should more actively incorporate hyperlinked sources to directly connect their audience to both original sources and helpful context. The irony of the current digital ‘fake news’ epidemic is that, were they to investigate further, readers now have digital access to more information than ever before. The Open Government Initiative¹⁰ is making more and more of the government’s public records freely accessible online, and in general, an increasing portion of ‘original sources’ can now be located on the web. Digital publications have taken to citing their claims using hyperlinks to sources, but such grounding is still inconsistent and varies across articles and publishers. We recommend that news outlets adopt policies requiring judicious use of digital citation of primary sources for any non-original claims in their articles. The more an article can be grounded in fact, the more consumers can validate claims by themselves, and the more credible the news becomes. Such citation benefits consumers (who are better informed), fact-checkers (who are more easily able to verify/debunk claims), and publishers (who gain credibility).

⁶ Cade Metz, *The Bittersweet Sweepstakes to Build an AI that Destroys Fake News*, WIRED, (March 7, 2017) (“A machine that can reliably identify fake news is a machine that has completely solved AI.”), <https://www.wired.com/2016/12/bittersweet-sweepstakes-build-ai-destroys-fake-news/>.

⁷ Dhruv Ghulati, *Introducing Factmata: Artificial Intelligence for Automated Fact-Checking*, MEDIUM (March 7, 2017) <https://medium.com/factmata/introducing-factmata-artificial-intelligence-for-political-fact-checking-db8acdbf4cf1#.ifhi5jnnd>.

⁸ *About*, FAKE NEWS CHALLENGE, (March 7, 2017) <http://www.fakenewschallenge.org/>.

⁹ Mevan Babakar & Will Moy, *The State of Automated Fact Checking*, FULL FACT, (March 7, 2017), https://fullfact.org/media/uploads/full_fact-the_state_of_automated_factchecking_aug_2016.pdf.

¹⁰ *Open Government Initiative*, US Department of State (March 21, 2017), <https://www.state.gov/open/>.

In parallel, platforms have an important role to play in encouraging citations in the news media. Evidence suggests that few readers go out of their way to check a claim's sources or credibility unprompted.¹¹ We propose that platforms – like Facebook, Google News, and Twitter – provide users with an easily-interpretable ‘source summary:’ a trace of the claims of a news piece to their original sources. Such visualizations can be automatically generated using hyperlinks, mentions, retweets, and other citation formats. For example, a trace could show that an article in *The Blaze* cited a story in *The New York Times*, which cited a retweet by a public official of an account of a private citizen. Such traces would allow users to apply their personal knowledge of the legitimacy of different sources, rather than creating a centralized arbiter of legitimacy. Further, such visualization incentivizes news outlets to cite more, as their citation efforts will be clearer to consumers. Similarly, platforms can incorporate “citation quality” as a metric in their feed ranking algorithms, incentivizing companies to cite their claims more thoroughly to gain greater visibility for their content. We believe that encouraging higher citation standards will foster accountability on news platforms, help restore legitimacy to bona fide journalism, and allow readers to be better aware of where the information they are reading originate.

DELIVERING CORRECTIONS

Much of the problem of fake news has been created or exacerbated by the changing ways in which our news is being delivered. Consider how the market created by digital advertising has incentivized inflammatory headlines, or how an online platform's feed shapes what information is delivered to each user. Platform operators can assist in fixing the “fake news” problems they have helped to create by implementing a notification system to alert users who have read a story that has been marked as disputed, or when the publisher of the story has issued a correction. Such a notification should be clear and obvious – a ‘push’ notification, when possible. Organizations should consider whether or not it is appropriate for these notifications to be capable of being disabled in the application settings.

A simple example of such a notification would be when a user clicks on a newspaper story that has been posted on a certain platform, and the reporter or paper issues a correction or retraction. Operators like Facebook and Twitter can provide a notification to users who had previously clicked on that link – letting users know that the editor's note, correction, or retraction has occurred from the organization or author who issued the story – and provide a link to the updated story. As a more complex example, the platform may determine that the veracity of the story is disputable and issue a notification, especially if a platform operator chooses to institute a fact-checking system. It is tenuous for a platform to classify whether or not a story ought to be considered misinformation, as it risks putting a great deal of discretion to platforms, as opposed to simply conveying a correction or retraction from another source. Facebook has begun to operate such a ‘disputed’ tag for its posts when more than one fact-checking service has contested the story.¹² If platform operators intend to develop a system like Facebook's for disputed stories, transparency will be absolutely paramount, as will a robust

¹¹ *Evaluating Information: The Cornerstone of Civic Online Reasoning*, STANFORD HISTORY EDUCATION GROUP, (March 7, 2017), <https://sheg.stanford.edu/upload/V3LessonPlans/Executive%20Summary%202011.21.16.pdf>.

¹² Facebook post, Mark Zuckerberg, (March 7, 2017), <https://www.facebook.com/zuck/posts/10103269806149061>.

relationship with bona fide fact-checking organizations, such as Politifact,¹³ or the Poynter International Fact-Checking Network.¹⁴

For all stakeholders considering taking part in a system or creating a tool that classifies misinformation, we advise extreme caution in devising how those disputations will be created and presented. Overzealousness will result in chilled speech – the term ‘fake news’ is a powerful tool in the hands of political leaders attempting to discredit inconvenient information. As we have emphasized throughout, the goal of these Guidelines is to prevent the spread of misinformation without restricting freedom of expression. A nuance in determining how information is characterized as disputed or faulty is absolutely paramount to maintaining that tenuous balance.

CHANGING VISIBILITY¹⁵

The novel problems of fake news are compounded by a range of incentives; some correctable, some not. Much has been made of the idea of ‘filter bubbles,’ the idea that individual have cordoned themselves off so as to be exposed to only information they want to hear. Online, this is often exemplified by users’ personalized feeds, designed to prioritize sources of information that the user wants to click on — and which the user often already tends to agree with. This can have the effect of pushing the beliefs of users to ideological extremes, as they are consistently provided with information that seems to support group consensus (whether shared from their ‘friends,’ followers, or media outlets). In addition, people tend to believe information that feels familiar.¹⁶ This set of cognitive and architectural boundaries — how, and why, information impacts individuals, and how the design of online information networks can compound those effects — should be accounted for as stakeholders consider effective strategies for preventing the spread of misinformation. The quirks of human psychology shape the parameters of what a fake news tool can accomplish, but it is not a problem that can be ‘fixed.’¹⁷

Other aspects of the fake news problem are capable of correction, but require technologically difficult solutions, or simple solutions that are normatively tricky to enact without creating unacceptable collateral problems. Changing *how* news is delivered through a platform operator’s feed-ranking-algorithms falls into that second category: possible, but technologically and philosophically complex. Choosing which metrics indicate a reliable or unreliable post is a nuanced exercise in translating broad principles into concrete techno-editorial

¹³ *About Us*, POLITIFACT, <http://www.politifact.com/truth-o-meter/article/2013/nov/01/principles-politifact-punditfact-and-truth-o-meter/> (accessed March 19, 2017).

¹⁴ International Fact-Checking Network, POYNTER, (accessed March 20, 2017), <https://www.poynter.org/tag/international-fact-checking-network/>.

¹⁵ This section focuses heavily on Facebook, partially by design. The platform is not the only source of fake news, and nor are social media sites more generally — as we have emphasized repeatedly, fake news is a complex problem, compounded and impacted by the actions of a range of actors in different sectors, with different incentives. But Facebook is also responsible for a colossal 42% of referral traffic, making its platform, and the factors that shape the platform’s news-delivery system, of particular relevance and consequence. See Allie VanNest, *Where Is Your Site Traffic Coming From*, PARSE.LY, (Dec. 14, 2016), <https://blog.parse.ly.com/post/5194/referral-traffic/>. In addition, Twitter, the platform likely considered the next most relevant after Facebook in terms of its impact on the problem of fake news, only recently began incorporating an algorithmic feed in lieu of a more basic chronological listing of posts. See http://www.slate.com/articles/technology/cover_story/2017/03/twitter_s_timeline_algorithm_and_its_effect_on_us_explained.html.

¹⁶ See generally, Molly Callahan, *The Fake News Phenomenon: How It Spreads, And How To Fight It*, News@Northeastern, (Feb. 21, 2017), <https://news.northeastern.edu/2017/02/the-fake-news-phenomenon-how-it-spreads-and-how-to-fight-it/> (discussing how the brain uses familiarity as indicative of veracity).

¹⁷ See generally, Ricardo Bilton, *Reddit’s /r/worldnews community used a series of nudges to push users to fact-check suspicious news*, NIEMAN LAB, (Feb. 2, 2017), <http://www.niemanlab.org/2017/02/reddits-rworldnews-community-used-a-series-of-nudges-to-push-users-to-fact-check-suspicious-news/> (discussing how an “AI nudge” can be used to impact the dissemination of both misinformation and corrections to it).

decisions, an exercise that must be undertaken with humility and care to avoid unpredictable and undesirable results.

For users who consume news primarily through their Facebook or Twitter feeds, the algorithm that prioritizes which posts they see first has an enormous impact on what information they take in. When Facebook announced that it had changed its newsfeed algorithm to prioritize news from users' friends and family, fears that the company was inappropriately weighing certain factors over others was a common critique.¹⁸ Organizations should create, publish, and adhere to a written set of principles that shape how posts are ranked, similar to Facebook's News Feed Values.¹⁹ These written practices should be clearly articulated, comprehensive, and made accessible to the public. Facebook includes a site dedicated to explaining how its News Feed works, including the News Feed FYI Blog, Publisher Best Practices,²⁰ and its code of principles guiding the News Feed algorithm, News Feed Values.²¹

There is, of course, a careful line to be walked with this kind of transparency. If a company reveals too little, it could be hiding problematic practices from users, investors, and regulators. If it reveals too much, it can allow malicious actors to game the system – in this case, allowing false content aggregators to outsmart whatever anti-fake-news measures the company comes up with. We believe that an appropriate balance can be struck by releasing the variables used (in the case of algorithmic feeds), but not the way those variables are used;²² and by creating and adhering to the publically-released, written principles governing how the feed ranks information.²³

One solution that could transfer some of the agency to users would be to allow users to control the factors shaping their feed,²⁴ as Facebook once did in an earlier iteration of its News Feed. This could mitigate the concerns that Facebook, as sole arbiter of what goes into the prioritization algorithm, could become the arbiter of what 'real' news is. Some platforms might also find a chronological feed to be the most transparent approach to revealing how and why a user sees the post she sees, similar to the approach Twitter has taken for most of its history as a company.²⁵ Facebook, for one, already makes similar tweaks to its news feed prioritization algorithm in order to de-emphasize clickbait,²⁶ and has begun testing an alternate news feed predicated on the user's interests.²⁷

¹⁸ Josh Constance, *Facebook puts friends above publishers in "News Feed Values" and ranking change*, TECH CRUNCH, (Jun. 29, 2016) <https://techcrunch.com/2016/06/29/facebook-news-feed-change/>.

¹⁹ *News Feed Values*, FACEBOOK (accessed March 20, 2017), <https://newsfeed.fb.com/values/>.

²⁰ *News Feed Overview*, FACEBOOK MEDIA, (accessed March 20, 2017), <https://www.facebook.com/facebookmedia/get-started/news-feed>.

²¹ *News Feed Values*, FACEBOOK (accessed March 20, 2017), <https://newsfeed.fb.com/values/>.

²² Will Oremus, *Who Controls Your Facebook Feed*, SLATE, (Jan. 3, 2016) http://www.slate.com/articles/technology/cover_story/2016/01/how_facebook_s_news_feed_algorithm_works.single.html.

²³ See also, Carolyn O'Donovan, *Q&A: Tarleton Gillespie says algorithms may be new, but editorial calculations aren't*, NIEMAN LABS, (July 8, 2014), <http://www.niemanlab.org/2014/07/qa-tarleton-gillespie-says-algorithms-may-be-new-but-editorial-calculations-arent/> (comparing how Twitter, Facebook, and Reddit organize user feeds).

²⁴ Josh Constance, *Facebook puts friends above publishers in "News Feed Values" and ranking change*, TECH CRUNCH, (Jun. 29, 2016), <https://techcrunch.com/2016/06/29/facebook-news-feed-change/>.

²⁵ Will Oremus, *Twitter's New Order*, SLATE, (March 5, 2017), http://www.slate.com/articles/technology/cover_story/2017/03/twitter_s_timeline_algorithm_and_its_effect_on_us_explained.html.

²⁶ Josh Constance, *Facebook's new anti-clickbait algorithm buries bogus headlines*, TECH CRUNCH (March 7, 2017), <https://techcrunch.com/2016/08/04/facebook-clickbait/>.

²⁷ Sarah Perez, *Facebook tests a second News Feed headed by a rocket ship icon*, Tech Crunch (Mar. 29, 2017), <https://techcrunch.com/2017/03/29/facebook-tries-a-second-news-feed-headed-by-a-rocket-ship-icon/>.

ORGANIZATIONAL COLLABORATION

The modern news ecosystem is multi-faceted, and has both created new stakeholders,²⁸ and forced older stakeholders to reckon with the impact of new technology on their business models. These different actors have much to learn from each other, and will benefit from collaborating in implementing solutions to the fake news problem that effectively attack the issue on all fronts. We encourage both horizontal collaboration (i.e., collaboration between different companies in the same sector, such as between media companies), and vertical collaboration (such as between a platform operator and a fact-checking organization). One example of vertical collaboration is CrossCheck, an initiative from the Google-funded First Draft News. CrossCheck has enlisted 37 European news organizations, including the BBC, Bloomberg, Le Monde, BuzzFeed, and Agence France-Presse.²⁹ First Draft has put together a range of resources of particular use to individual journalists and news consumers, such as guides for verification, effective and accountable crowdsourcing, and explanations of applicable legal doctrines and standards of practice.³⁰ The News Integrity Initiative is a new partnership between technology companies, non-profits, and others with the objective of supporting news literacy, and enabling readers to better discern fact from fiction.³¹ Initiatives like this signal the willingness of different stakeholders to come together to discuss solutions to the problems of misinformation, and acknowledge that none of those stakeholders can solve the problem alone.³² Publishers can learn important tools and strategies for engaging with readers, and how they might use technology to empower readers.³³ The Flipside organizes topics on an ideological spectrum, such that readers can seek out contrasting opinions.³⁴ The app *Read Across the Aisle* nudges users when their news sources have grown too ideologically homogenous, and suggest alternate news sources.³⁵ In a related endeavor, Google has partnered with *The New York Times*, *The Economist*, and other media outlets to integrate an API that uses machine learning to identify patterns of harassment or toxic speech.³⁶ Publishers can also work with platform operators to improving digital literacy, as researchers have

²⁸ See generally, Mike Ananny & Kate Crawford, *A Liminal Press: Situating News App Designers within a Field of Networked News Production*, DIGITAL JOURNALISM 1 (forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2448736 (Contemporary online news emerges from no single type of actor or institution. While much of online news content production is still dominated by “traditional,” “legacy,” or “mainstream” news organizations, the means by which news circulates is increasingly shaped by networked forces, new people and priorities.”) (citation omitted).

²⁹ Jessica Davies, *European newsrooms are forming a united front to fight fake news*, DIGIDAY (March 27, 2017), <http://digiday.com/uk/european-newsrooms-forming-united-front-fake-news/> (“Traditional media company competitiveness has been put aside in favor of collaboration. The result: having more than one publisher discredit a false story renders the debunking more powerful. Now, beyond just debunking, new stories are being generated from the joint input of publishers.”); see also, CrossCheck (accessed March 21, 2017), <https://crosscheck.firstdraftnews.com/france-en/>.

³⁰ *Resources*, FirstDraft News, (accessed March 21, 2017), <https://firstdraftnews.com/resources/>.

³¹ Amy Dunkin, *Announcing the News Integrity Initiative to Increase Trust in Journalism*, CUNY Graduate School of Journalism, (April 3, 2017) <https://www.journalism.cuny.edu/2017/04/announcing-the-new-integrity-initiative/>.

³² *Id.* (“As part of the Facebook Journalism Project, we want to give people the tools necessary to be discerning about the information they see online,” said Campbell Brown, Facebook’s Head of News Partnerships. “Improving news literacy is a global concern, and this diverse group assembled by CUNY brings together experts from around the world to work toward building more informed communities.”); Chris Cox, FACEBOOK (April 3, 2017) (announcing the News Integrity Initiative) (“Working with these folks it’s increasingly clear that we’re all working on solving the same problems, but that we’ll make much faster progress if the two hands of tech and media are working more closely together.”).

³³ Flipside (accessed April 4, 2017) <http://interactives.huffingtonpost.com/2017/the-flipside>.

³⁴ *Id.*

³⁵ A news app aims to burst filter bubbles by nudging readers toward a more “balanced” media diet, NiemanLab, (Mar. 9, 2017) <http://www.niemanlab.org/2017/03/a-news-app-aims-to-burst-filter-bubbles-by-nudging-readers-toward-a-more-balanced-media-diet/>; see also, *About*, ESCAPE YOUR BUBBLE (accessed April 4, 2107), <https://www.escapeyourbubble.com/>.

³⁶ *Perspective*, <https://www.perspectiveapi.com/> (accessed April 15, 2017) (“Perspective is an API that makes it easier to host better conversations. The API uses machine learning models to score the perceived impact a comment might have on a conversation.

found that a lack of ability to discern factual content from satire, or outright lies, have compounded the problems of fake news.³⁷

For an example of horizontal collaboration, platform operators could work together to create a notification across platforms, such as through an app. The user would enter her Facebook, Twitter, and other account information (such as subscriber information to any relevant publications, or online publications that she reads frequently), and receive a notification when one platform reports a story as disputed. Facebook has begun issuing pop-up warnings to users when they are about to post a disputed story;³⁸ a sharing network between platform operators, or between platform operators and fact-checking networks, could assist platform operators in their efforts to prevent such stories from being spread between platforms. Platforms can also work together to fight one of the incentives of fake news; advertising revenue. Platforms can collaborate on appropriate changes to their internal policies that reward advertisers who do not work with known aggregators of false content. They can also collaborate on a pledge not to work with certain advertisers.³⁹

Developers and publishers can use this score to give realtime feedback to commenters or help moderators do their job, or allow readers to more easily find relevant information, as illustrated in two experiments below.”).

³⁷ See Stanford History Group, *Evaluating Information: The Cornerstone of Civic Online Reasoning* (Nov. 2016), <https://sheg.stanford.edu/upload/V3LessonPlans/Executive%20Summary%2011.21.16.pdf>.

³⁸ Peter Kafka, *Facebook has started to flag fake news stories*, RECODE, (March 4, 2017), <http://www.recode.net/2017/3/4/14816254/facebook-fake-news-disputed-trump-snoops-politifact-seattle-tribune>.

³⁹ See generally, Pagan Kennedy, *How To Destroy The Business Model of Breitbart and Fake News*, N.Y.T. (Jan. 17, 2017) <https://www.nytimes.com/2017/01/07/opinion/sunday/how-to-destroy-the-business-model-of-breitbart-and-fake-news.html>.