

7 Ethics considerations

Our author outreach survey design was approved by the [REDACTED] IRB. All statistics published from those communications are in aggregate, with no personal identifiers attached to individual author responses. Datasets used for this work were already publicly available or were obtained with permission from study authors.

8 Open science

Code and data used for our analyses, as well as our full paper corpus, are included in our online SI (available at https://anonymous.4open.science/r/sok_misinformation-41E8).

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Appendix

A Commercial fact-checking services

We include here a brief market survey of commercial and LLM-powered fact-checking and IO detection services. In general, these services fall into five categories: 1) media fact-checking organizations; 2) brand safety and suitability services; 3) trust & safety operations at large social media platforms; 4) threat detection operations; and 5) analytics organizations unaffiliated with a media outlet that offer research capacity to governments and businesses. We define each service category and (with the exception of the first category, which comprises human media workers and fact-checkers) discuss automated content moderation operations deployed by three prominent exemplars within each service category.

In general, in instances where such information is made available, we observe that at-scale content moderation businesses *at least* employ human-labeled datasets to train classifiers, and some retain subject-area experts to adjudicate complex moderation decisions. On social media platforms, in particular, human moderators and automated systems appear to work hand-in-hand: automated systems surface potentially misinformative content that receives final verification from a human moderator. For IO detection, specialized knowledge (pertaining to specific geographies, languages, or political climates) is often invoked.

Media fact-checking. Human fact-checkers and content moderators affiliated with news outlets, or who work as freelance fact-checkers. *The International Fact-Checking Network (IFCN)* is a professional network of media workers and fact-checkers; IFCN is also the de facto standards setting body for media fact-checking, and maintains a fact-checking code of ethics [404]. In general, media fact-checking organizations with IFCN affiliations are established news organizations, non-profits, and watchdog organizations that employ human journalists and fact-checkers. Furthermore, (human) fact-checkers can receive IFCN compliance certificates after passing a qualifying exam.

Brand safety and suitability companies. B2B companies that detect categories of potentially harmful speech on websites where ads might appear. Advertisers wishing to protect “brand safety” contract with these services to ensure that their ads do not appear alongside problematic content. The Global Alliance for Responsible Media (GARM) is the standards-setting body for brand safety and suitability companies [215].

- *Zefr*, a GARM member company, deploys AI to detect material that falls within predefined subcategories of problematic content (e.g., explicit content, misinformation, spam). In a press release for Zefr’s acquisition of an AI-driven content moderation company (AdVerif.ai) from 2022, the company disclosed that AdVerif.ai is “powered by fact-checking data from more than 50 IFCN-certified organizations around the globe” [216]—that is, AdVerif.ai trains its models on labeled datasets produced by (human) IFCN affiliates.
- *DoubleVerify*, a GARM member company, “uses sophisticated approaches that rely on a combination of AI and comprehensive human review” [244]. According to the company’s documentation, human assessors (a “semantic science team”) evaluate site infrastructure and contents; AI is used to scale their assessments.
- *Integral Ad Science (IAS)*, a GARM member company, deploys AI to detect low-quality sites via infrastructure features. The company’s data sources, and deployment methodology were not immediately evident upon web search; IAS recently announced a new partnership with Meta for ad placement management on Facebook [241].