

Copyright © 2025 by Cherkas Global University



Published in the USA
 International Journal of Media and Information Literacy
 Issued since 2016.
 E-ISSN: 2500-106X
 2025. 10(2): 250-258

DOI: 10.13187/ijmil.2025.2.250
<https://ijmil.cherkasgu.press>



Assessing Fact-Checking Sites and Sentiment Analysis of Misinformation

K. Vrindha ^{a, *}, R.V. Rekha ^a

^a Pondicherry University, India

Abstract

The rapid dissemination of misinformation in the digital age poses a threat comparable to that of infectious diseases, spreading swiftly through social media platforms and often deceiving users with ease. The virality and persuasive nature of such content amplify its impact, making timely and effective fact-checking crucial. This article analyses the effectiveness of fact-checking sites by evaluating whether they have examined the misinformation. In addition, the study conducts a sentiment analysis of user comments on the original misinformed posts, using an Excel add-in called Meaning Cloud, aiming to assess public agreement with the misinformation as well as the prevalence of positive and negative sentiments. One misinformation from categories like political, health, sports, and general was selected. Out of the four misinformation selected, three of them were all fact-checked by at least four fact-checking sites. In all four of the misinformation, most of the comments are in an agreeing nature. This shows that users believe the misinformation. The political and health misinformed posts' comments have comparatively higher negative sentiment, while the sports and general misinformation posts have comparatively more positive sentiment. The sentiment of the comments of the misinformation depends on the content and the context of the misinformation.

Keywords: misinformation, fake news, social media, sentiment, fact-checked.

1. Introduction

Fake news is the published news that contains fake information to mislead people intentionally (Islam et al., 2020). The other terms associated with fake news are 'misinformation' and 'disinformation'. The definitions of misinformation that were most frequently used were "False and misleading information" and "False and misleading information spread unintentionally." (Altay et al., 2023). On the other hand, disinformation is the false information created with the intention to deceive (Wardle, Derakhshan, 2017). But in many studies, the term 'misinformation' is used as an umbrella term for any type of inaccurate or deceptive information, regardless of its motivation (Altay et al., 2023). The massive production of misinformation in the digital world is a new threat to the current world. The World Economic Forum's Global Risk Report 2024, identifies the most significant risk for the next two years as misinformation and disinformation. Social media has enabled everyone to connect with the world, resulting in an enormous amount of information being produced every minute, making it difficult to evaluate this huge amount of information. Apart from this, people rely on social media platforms for daily news, which again makes people more prone to fake news. The specific features of social media, like algorithms and echo chambers, increase the risk of misinformation. This makes social media a space for the spread of hoaxes, conspiracy theories, and manipulated content (Novotná et al., 2023; Rodríguez-Pérez et al., 2025).

* Corresponding author

E-mail addresses: vrindhak1999@gmail.com (K. Vrindha)

Fact-checking is the process of routinely publishing evaluations of the veracity of statements made by institutions and public authorities with the specific goal of determining if a claim is true (Walter et al., 2020). Fact-checking journalism, which started at the end of the 20th century, became more popular by the 21st century, joined by new, specialized digital media as well as established media, making verification their journalistic goal (Amazeen, 2019; Rodríguez-Pérez et al., 2025). People usually do not come across fact-checking posts like those of the misinformed posts. Fact-checking sites' familiarity is predicted by a number of factors, including age, gender, education, political interest, political efficacy, liberal ideology, political discourse, and news consumption (Robertson et al., 2020). The effect of fact-checking posts on people is still debatable. Some studies show that fact-checking posts can correct the misinformed beliefs of people (Fridkin et al., 2015; Porter et al., 2018; Wood, Porter, 2019), while some studies say it has very little impact (Lewandowsky et al., 2012; Nyhan, Reifler, 2010).

This study aims to find answers to the research questions:

- RQ1 – To what extent do the fact-checking sites fact-check the misinformation?
- RQ2 – What is the level of belief in misinformation among social media users?
- RQ3 – What is the sentiment in the comments of the misinformed posts by social media users?

Review of Literature

Fake News, Misinformation, Disinformation

Fake news is not a new phenomenon (Digwatch News, 2020). Fake news has existed in the form of rumors and false stories ever since humans lived in groups and power mattered (Burkhardt, 2017). An official record of fake news dates back to the Roman Empire period, when intentional fake news was spread to defame Mark Antony (Kaminska, 2017). Later in the 1430s, with the invention of the printing press by Gutenberg, fake news spread in the form of published printed articles (Soll, 2016). World War I and World War II also witnessed various propaganda being spread (Posetti, Matthews, 2018).

There are several terms related to the term *fake news*, like *misinformation*, *disinformation*, *malinformation*, etc. A major difference between misinformation and disinformation is the intention behind its spread. Misinformation is the false information that is not intended to cause harm, while disinformation is false information that is intended to cause harm (Wardle, Derakhshan, 2017). Information that is grounded in reality but used to cause harm to an individual, group, or nation is referred to as malinformation (Wardle, Derakhshan, 2017).

Social Media Misinformation

By the 2000s, social media has given everyone the opportunity to share information with the world. This caused the production of abundant unverified information every minute. The unique features of social media like *algorithms*, *echo chambers*, *filter bubbles* make the fake news spread differently from other traditional media like television, newspapers, radio, etc. The volume of information that is shared on these platforms and the ability of these decentralized networks to spread material (Benkler et al., 2018) and the prevalence of numerous deception techniques, including trolls, bots, and astroturfing (Arce-García et al., 2022; Chan, 2024) make them the perfect environment for the spread of fake news (Alonso-Muñoz et al., 2024). This causes misinformation to affect society more now than it did in the past (Zimmer et al., 2019). A study by (Vosoughi et al., 2018) states that false news spreads six times more quickly online than accurate information, and 70% of users are unable to tell the difference between the two. Lately, the 2016 US presidential election and the 2020 COVID-19 pandemic have witnessed this intense wave of fake news spread through social media. By the end of the 2016 US presidential election, it was estimated that over 1 million tweets contained fake news (Aïmeur et al., 2023; Pizzagate Conspiracy Theory, 2025).

Sentiment analysis of the comments on misinformed posts helps to analyse the emotions of social media users about the misinformed post. A study by (Zollo et al., 2015) shows that the comments of a conspiracy post have more negative emotions than positive emotions. However, there are studies that show different results. A study by (Castillo et al., 2011) revealed that greater sentiment, both good and negative, but especially more positive, is often displayed by fake and untrustworthy news.

Fact-checking

In the 1920s and 1930s, internal fact-checking began to take center stage in American news periodicals. In the 2000s, external fact-checking made its debut in the United States. External fact-checking is publicizing an evidence-based evaluation of the veracity of a political assertion, news

article, or other public document (Graves, Amazeen, 2019). Fact-checking was initially conceived of as women's work, and it remained so through the 1970s. A 1971 book, *No Experience Necessary: A Guide to Employment for the Female Liberal Arts Graduate*, listed fact-checking as one of many possible jobs for young women, describing it *as a grisly job involving a lot of work, research skill, and judgment* (Dickey, 2019; Friedman, Schwartz, 1971; *The Rise and Fall of Facts*, 2019).

In the 2000s, fact-checking gained popularity through three dedicated fact-checking organizations run by professional journalists: FactCheck.org, which started in 2003, and PolitiFact and the Washington Post's Fact Checker, both of which were launched in 2007 (Graves et al., 2016). Even though verifying facts has consistently been a fundamental practice in journalism, the nature of the fact-checking carried out by these sites differed from that of conventional journalism. In this type of reporting, fact-checkers resolve factual disagreements using a process akin to the scientific method (Robertson et al., 2020).

Fact-checking sites now integrate AI into their daily working process. Using AI fact-checkers can analyze a larger volume of data, earlier claim detection, automate mechanical tasks, and even engage with users (Gutiérrez-Caneda, Vázquez-Herrero, 2024). The trustworthiness of fact-checking services depends on their parent organization's aim and their funding (Brandtzaeg, Følstad, 2017). A study conducted among the residents of Singapore by (Lim, Perrault, 2023) showed that there is a contradiction between the stated trust and actual reliance on different fact-checking sites. Accordingly, in the experiment survey the people showed more trust in the government-based fact-checking sites, but behaviourally participants adhered more strongly to fact-check labels provided by AI-based fact-checking systems than those provided by the government.

2. Materials and methods

The study consists of two parts. The first part focuses on assessing the verification of misinformation by fact-checking sites, and the second part analyses the sentiment of people toward this misinformation.

Selection of Fact-Checking Sites and Misinformation

This study included fact-checking sites that are verified signatories of the IFCN Code of Principles. The International Fact-Checking Network (IFCN) at Poynter was established to unite the growing international network of fact-checkers. Signatories of the IFCN Code of Principles undergo a vetting process by external assessors, requiring them to demonstrate commitment to non-partisanship and fairness, transparency in sources, funding, organization, and methodology, as well as a dedication to open and honest corrections (IFCN, 2024). Among the active signatories of IFCN on 25 September 2024, we took the fact-checking sites that are in the English language. 38 Fact-checking sites were in English language and among these, 2 of the sites didn't have an option for searching the fact-checks. So a total of 36 Fact-checking sites were taken for the study.

Among the misinformation that spread on social media during the last three years (2022, 2023, and 2024), four misinformation were selected, each representing the categories: political misinformation, misinformation in sports, health misinformation, and misinformation in the general category. The misinformation was selected randomly. Political misinformation selected for the study is a Facebook post in 2024 that tells U.S. presidents can cancel or postpone federal elections (Charlie Kirk, 2024). An image of Lionel Messi holding the flag of Israel that spread on Instagram during 2023 was taken for the category of misinformation in sports (Doctorgadsaad, 2023). Health misinformation selected for the study is an X (Twitter) post in 2022 that states monkeypox is a result of coronavirus vaccination (Sudden and Unexpected, 2024). Misinformation about Elon Musk announcing Tesla House for \$10,000 was taken in the category of general misinformation (Facebook, 2024).

Searching for misinformation in the fact-checking sites

The fact-checked news of the four misinformation was searched in each fact-checking site using appropriate search terms. For searching the fact-checking news of the cancellation of the election by the US president, the search terms used were *US election* and *Cancel election*. The search terms used for the fact-checked news about Lionel Messi holding the Israel flag were *Messi* and *Israel*, for the misinformation about monkeypox, the search term was *monkeypox*, and for the misinformation about Tesla's house, the search term was *Tesla*.

Analysing the sentiment of the comments

The social media posts that spread this misinformation were identified, and their comments were extracted using the website exportcomments.com (Export Comments, 2024). This website downloads 100 comments for free. This free version is used for this study. An Excel add-in called

Meaning Cloud is used to analyze the level of agreement and sentiment of the comments. Meaning Cloud is a commercial, knowledge-based sentiment analysis tool. To determine the global polarity value for the entire text, it uses a dictionary to determine the local polarity of various sentences or grammatical structures inside the text and assess the connections between them (Zaeem et al., 2020; MeaningCloud, 2024). Meaning Cloud stopped its services on 30th January 2025. This analysis was done before this date, in December 2024. The sentiment of comments is shown in five categories, Very Positive (P+), Positive(P), Neutral (NEU), Negative (N), and Very Negative (N+). Meaning Cloud fails to understand the sentiment behind the emojis and some other comments and reports it as Error and None, respectively. The level of agreement in the comments is also obtained through the meaning cloud. The output is labeled as Agreement and Disagreement.

3. Discussion

After being filtered according to the websites' English language and news search capabilities, a total of 36 fact-checking websites were selected for the study. Table 1 shows the fact-checking sites and their country of origin. 9 of the fact-checking sites are from the United States of America, 7 of them from India, 3 each from the United Kingdom and Australia, and 2 each from the Philippines and France.

Table 1. List of fact-checking sites and their country of origin

<i>Country</i>	<i>Number</i>	<i>Fact-checking sites</i>
United States	9	Ap fact check, Check your fact, Factcheck.org, Reuters,
India	7	Boom, Digital Forensics, Research and Analytics Centre
Australia	3	Australian associated press, Rmit abc fact check,
UK	3	Fullfact, Lead stories, Pa media.
France	2	AFP Fact Check, Science feedback.
Phillipines	2	Verafiles incorporated, Pressone.PH.
Africa	1	Africa Check
Bosnia and Herzegovina	1	Raskrinkavanje
Canada	1	The canadian press
Georgia	1	Myth detector
Hong Kong	1	Annie lab
Ireland	1	FactCheckNI
Kenya	1	Pesacheck
Nigeria	1	Premium Times Center for Investigative Journalism.
United Nations	1	Mediawise
Zimbabwe	1	Fact check zimbabwe

Verification of the Misinformation by the Fact-Checking Sites

The fact-checking websites were searched for the fact-checked news of each of the four misinformation. The Table 2 shows, among the fact-checking sites listed, only 4 sites verified the misinformation about the US president's power to cancel or postpone the US presidential election. These fact-checking sites are AFP Fact Check, PolitiFact, Premium Times Centre for Investigative Journalism, and USA Today. 10 of the fact-checking sites verified the misinformation of Messi holding the Israel flag. The fact-checking sites AFP Fact Check, Boom, Check Your Fact, D-FRAC, Factly Media and Research, Leadstories, Newsmeter, Reuters, The Quint, and USA Today checked this misinformation. The misinformation that claims monkeypox is caused by coronavirus vaccination, is verified by 15 fact-checking websites. Of the 36 websites, just four fact-checked the misinformation regarding Tesla House. These websites are Snopes, Politifact, Leadstories, and Check Your Fact. None of the fact-checking sites fact-checked all the four misinformation. The fact-checking sites like AFP Fact Check, Leadstories, and USA Today have fact-checked at least 3 of the misinformation.

Table 2. Verification of misinformation by fact-checking sites

<i>S</i>	<i>Fact-Checking Sites</i>	<i>Political</i>	<i>Sports</i>	<i>Health</i>	<i>General</i>
1	Africa Check	No	No	No	No
2	AFP Fact Check	Yes	Yes	Yes	No
3	Ap fact check	No	No	Yes	No
4	Annie lab	No	No	Yes	No

<i>S</i>	<i>Fact-Checking Sites</i>	<i>Political</i>	<i>Sports</i>	<i>Health</i>	<i>General</i>
5	Australian associated press	No	No	Yes	No
6	Boom	No	Yes	No	No
7	Check your fact	No	Yes	No	Yes
8	Digital Forensics, Research and	No	Yes	Yes	No
9	FactCheckNI	No	No	No	No
1	Factly media & research	No	Yes	No	No
1	Fact check zimbabwe	No	No	No	No
1	Factcheck.org	No	No	Yes	No
1	First check	No	No	Yes	No
1	Fullfact	No	No	Yes	No
1	Lead stories	No	Yes	Yes	Yes
1	Mediawise	No	No	No	No
1	Myth detector	No	No	No	No
1	Newsmeter (fifth estate digital	No	Yes	No	No
1	Pa media	No	No	No	No
2	Pesacheck	No	No	No	No
2	Politifact	Yes	No	Yes	yes
2	Premium Times Center for	Yes	No	No	No
2	Press Trust of India	No	No	No	No
2	Pressone.PH	No	No	No	No
2	Rmit abc fact check	No	No	Yes	No
2	RMIT factlab	No	No	Yes	No
2	Raskrinkavanje	No	No	No	No
2	Reuters	No	Yes	Yes	No
2	Science feedback	No	No	No	No
3	Snopes.com	No	No	No	Yes
3	The canadian press	No	No	Yes	No
3	The dispatch	No	No	No	No
3	The quint	No	Yes	No	No
3	Usa today	Yes	Yes	Yes	No
3	Verafiles incorporated	No	No	No	No
3	Wisconsin watch	No	No	No	No

Level of Agreement in Comments

Table 3 shows the level of agreement with the misinformation in their comments. The total number of comments for the political misinformation post on Facebook was 70. Among these 70 comments, 53 (75.7 %) of the comments agreed with the statement. A total of 17 (24.2 %) disagreed with this misinformation. That is, the majority of the people who commented (75.7 %) believed that U.S. presidents can cancel or postpone federal elections. Among the 105 comments for the sports misinformation post on Instagram, 66 (62.8 %) of the comments showed agreement with the misinformed statement and 32(30.5 %) of the comments disagreed with this statement. 5(4.7 %) of the comments were not analyzed by the meaning cloud plugin and were shown as errors. The majority of the people (62.8 %) who commented, believed that Argentina footballer Lionel Messi was holding the flag of Israel. A total of 100 comments were analyzed from the health misinformation post, of these 90(90 %) comments showed agreement with the misinformation. A total of 10(10 %) comments disagreed with this misinformed statement. The majority of the people commented (90 %), believed that monkeypox is caused by coronavirus vaccination. A total of 90 comments were there for the post on Facebook about Elon Musk announcing Tesla house for \$ 10,000. Among these 90 comments, 79(87.8 %) of the comments agreed, and 6(6.7 %) of the comments disagreed with this misinformed statement. 5 (5.5 %) of these comments were not analyzed by the meaning cloud and were shown as errors.

Table 3. The level of agreement on misinformation in comments

<i>Agreement</i>	<i>Political</i>	<i>Sports</i>	<i>Health</i>	<i>General</i>
Agreement	53 (75.7 %)	66 (62.8 %)	90 (90 %)	79 (87.8 %)
Disagreement	17 (24.2 %)	32 (30.5 %)	10 (10 %)	6 (6.7 %)
Error	0 (0 %)	5 (4.7 %)	0 (0 %)	5 (5.5 %)
Total	70	103	100	90

Sentiment analysis of comments

Table 4 analyses the sentiment in the comments of the four misinformed posts. For the political misinformation zero comments showed very positive sentiment, 11 comments had a positive reaction, 27 were negative and 8 were very negative. A total of 8 comments were identified as neutral comments and 16 comments were identified as none. Of the total comments in the misinformed post of Messi holding Israel's flag, 2 comments had a very positive sentiment about the misinformation and 29 had a positive sentiment. 12 of the comments had a neutral statement. 22 comments had negative and 8 comments had very negative sentiments. Sentiment of 27 comments were identified as none. Out of all the comments analyzed on the health misinformation post, no comments showed a very positive sentiment. 20 comments showed a positive sentiment, 4 had a neutral sentiment, 25 had a negative and 5 had a very negative sentiment. 46 comments were classified as having no sentiment. In the misinformed post about Tesla House, 17 comments showed very positive sentiment, and 32 had a positive sentiment. 3 had neutral sentiment and 3 comments had negative sentiment. Only one comment had a very negative sentiment.

Table 4. The sentiment of comments on misinformation

	<i>Political</i>	<i>Sports</i>	<i>Health</i>	<i>General</i>
P+	0	2	0	17
P	11	29	20	32
NEU	8	12	4	3
N	27	22	25	3
N+	8	8	5	1
None	16	27	46	29
Error	0	5	0	5
Total Comments	70	105	100	90

4. Results

The study is divided into two parts. The first part analyses the rate of fact-checking by the fact-checking sites and the second part analyses the sentiment and level of agreement of the comments on the misinformed post.

Our research shows a concerning discrepancy in fact-checking systems' responsiveness. Our findings show that the agreement level in all of the selected misinformation is higher than the disagreement level, suggesting that most people believed this misinformation. At the same time, only a very few fact-checking sites fact-checked all this selected misinformation. When evaluating the efficiency of fact-checking sites, the misinformed posts that most of the users believed are mostly not fact-checked by these sites; in other words, it implies that fact-checking hasn't reached the people, which made the people believe in that misinformation. This agrees with the studies by Lewandowsky et al. (Lewandowsky et al., 2012) and Nyhan and Reifler (Nyhan, Reifler, 2010) which states that fact-checking has less impact on people. Another study by Barrera et al. (Barrera et al., 2020) studied on the misinformation during 2017 French presidential election shows a similar result that while fact checking improves factual knowledge, it does not significantly alter voting intentions. Fact-checking can have a modest corrective influence under certain conditions (Graves, Amazeen, 2019). Upon examining user reactions to the disinformation posts, we found that, for every post we chose, the general level of agreement in the comments consistently exceeded the level of disagreement. This pattern implies that rather than questioning the inaccurate information, users choose to accept and believe it. Such a broad consensus could reinforce echo chambers where incorrect information is normalized and aid in the propagation and perceived legitimacy of misleading information.

We can't draw any generalizations after analyzing the sentiment of the comments and the misinformed posts. The political and health misinformed posts have comparatively higher negative sentiment, while the other two posts have comparatively more positive sentiment. This agrees with the disparities we discussed before. Zollo et al. (Zollo et al., 2015) discovered that comments on conspiracy-related posts display a predominance of negative emotions, and a study by Zaeem et al. (Zaeem et al., 2020) and Hamed et al. (Hamed et al., 2023) found a significant relationship between negative sentiment and fake news, whereas Castillo et al. (Castillo et al., 2011) noted that fake and untrustworthy news tends to generate stronger sentiment overall, especially in terms of positive emotions. Positive sentiment was shown in a study by Scannell et al. (Scannell et al., 2021)

of comments on Covid vaccine-related misinformation. A study by Mir and Sevukan (Mir, Sevukan, 2024) also showed similar positive sentiments for COVID-19 vaccine-related Indian Tweets. So the result suggests that emotional responses may vary depending on the type of misleading content and its context.

This study had various limitations. First, we selected the misinformation randomly; there is a chance that the fact-checking sites don't fact-check these sites, but may have the other, and vice versa, also may have happened. We used a Google Chrome extension to download the X (Twitter) comments, and the free version was used, which reduced the evaluation to 100 comments only. For sentiment analysis and understanding the level of agreement, we used an application that will not be as effective as manual understanding of the comments.

5. Conclusion

Misinformation is one of the major problems faced by the 21st century. Misinformation spreads through social media at a faster rate than true information. The fact-checked information doesn't reach the social media users like the misinformation. Analyzing the fact-checking sites shows that most of the fact-checking sites don't fact-check all the misinformation, which in a way is impossible to do. The comments under the misinformed posts are mostly agreeing in nature, which shows that many people believe misinformation, so a more effective kind of fact-checking system should be promoted, or a new kind of way to make people more aware of the misinformation happening around.

References

- Aïmeur et al., 2023 – Aïmeur, E., Amri, S., Brassard, G. (2023). Fake news, disinformation and misinformation in socialmedia: A review. *Social Network Analysis and Mining*. 13(1): 30. DOI: <https://doi.org/10.1007/s13278-023-01028-5>
- Alonso-Muñoz et al., 2024 – Alonso-Muñoz, L., Tirado García, A., Casero-Ripollés, A. (2024). The effects of disinformation among citizens of in Spain, UK and Germany: Digital platforms, topics, consequences and influence of sociodemographic factors. *Online Information Review*. 48(7): 1412-1430. DOI: <https://doi.org/10.1108/OIR-03-2024-0138>
- Altay et al., 2023 – Altay, S., Berriche, M., Acerbi, A. (2023). Misinformation on Misinformation: Conceptual and Methodological Challenges. *Social Media*. DOI: <https://doi.org/10.1177/20563051221150412>
- Altay et al., 2023 – Altay, S., Berriche, M., Heuer, H., Farkas, J., Rathje, S. (2023). A survey of expert views on misinformation: Definitions, determinants, solutions, and future of the field. *Harvard Kennedy School Misinformation Review*. DOI: <https://doi.org/10.37016/mr-2020-119>
- Amazeen, 2019 – 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. DOI: <https://doi.org/10.1177/1748048518817674>
- Arce-García et al., 2022 – Arce-García, S., Said-Hung, E., Mottareale, D. (2022). Astroturfing as a strategy for manipulating public opinion on Twitter during the pandemic in Spain. *El Profesional de La Información*. e310310. DOI: <https://doi.org/10.3145/epi.2022.may.10>
- Barrera et al., 2020 – Barrera, O., Guriev, S., Henry, E., Zhuravskaya, E. (2020). Facts, alternative facts, and fact checking in times of post-truth politics. *Journal of Public Economics*. 182: 104123. DOI: <https://doi.org/10.1016/j.jpubeco.2019.104123>
- Benkler et al., 2018 – Benkler, Y., Faris, R., Roberts, H. (2018). Network propaganda: Manipulation, disinformation, and radicalization in American politics. Oxford University Press.
- Brandtzaeg, Følstad, 2017 – Brandtzaeg, P.B., Følstad, A. (2017). Trust and distrust in online fact-checking services. *Communications of the ACM*. 60(9): 65-71. DOI: <https://doi.org/10.1145/3122803>
- Burkhardt, 2017 – Burkhardt, J.M. (2017). Chapter 1. History of Fake News. *Library Technology Reports*. 53(8): Article 8.
- Castillo et al., 2011 – Castillo, C., Mendoza, M., Poblete, B. (2011). Information credibility on twitter. *Proceedings of the 20th International Conference on World Wide Web*. 675-684. DOI: <https://doi.org/10.1145/1963405.1963500>
- Chan, 2024 – Chan, J. (2024). Online astroturfing: A problem beyond disinformation. *Philosophy & Social Criticism*. 50(3): 507-528. DOI: <https://doi.org/10.1177/01914537221108467>

- Charlie Kirk, 2024** – Charlie Kirk (2024). How Biden could potentially cancel the 2024 election. [Electronic resource]. URL: <https://www.facebook.com/watch/?v=459234613202237>
- Dickey, 2019** – Dickey, C. (2019). The Rise and Fall of Facts. *Columbia Journalism Review*. [Electronic resource]. URL: https://www.cjr.org/special_report/rise-and-fall-of-fact-checking.php/
- Digwatch News, 2020** – Digwatch News. Multilateralism in the Time of COVID-19. Digital Watch Observatory. 2020. [Electronic resource]. URL: <https://dig.watch/event/multilateralism-time-covid-19>
- Doctorgadsaad, 2023** – Doctorgadsaad (31.10.2023). Instagram. 2023. [Electronic resource]. URL: <https://www.instagram.com/p/CzFQbvtCaH/>
- Export Comments, 2024** – Export Comments. Exportcomments.Com. 2024. [Electronic resource]. URL: <https://exportcomments.com/>
- Facebook, 2024** – Facebook (2024). [Electronic resource]. URL: https://www.facebook.com/photo/?fbid=122174285282118422&set=a.122105358152118422&checkpoint_src=1501092823525282#_=_
- Fridkin et al., 2015** – Fridkin, K., Kenney, P. J., Wintersieck, A. (2015). Liar, liar, pants on fire: how fact-checking influences citizens' reactions to negative advertising. *Political Communication*. 32(1): 127-151. DOI: <https://doi.org/10.1080/10584609.2014.914613>
- Friedman, Schwartz, 1971** – Friedman, S., Schwartz, L.C. (1971). No Experience Necessary: A guide to Employment for the Female Liberal Arts Graduate (First Edition). Dell Pub. Co.
- Graves, Amazeen, 2019** – Graves, L., Amazeen, M.A. (2019). Fact-Checking as idea and practice in journalism. In: Graves, L., Amazeen, M.A. *Oxford Research Encyclopedia of Communication*. Oxford University Press. DOI: <https://doi.org/10.1093/acrefore/9780190228613.013.808>
- Graves et al., 2016** – Graves, L., Nyhan, B., Reifler, J. (2016). Understanding innovations in journalistic practice: a field experiment examining motivations for fact-checking: understanding innovations in journalistic practice. *Journal of Communication*. 66(1): 102-138. <https://doi.org/10.1111/jcom.12198>
- Gutiérrez-Caneda, Vázquez-Herrero, 2024** – Gutiérrez-Caneda, B., Vázquez-Herrero, J. (2024). Redrawing the lines against disinformation: how ai is shaping the present and future of fact-checking. *Tripodos*. 55: 04. DOI: <https://doi.org/10.51698/tripodos.2024.55.04>
- Hamed et al. 2023** – Hamed, S.Kh., Ab Aziz, M.J., Yaakub, M.R. (2023). Fake news detection model on social media by leveraging sentiment analysis of news content and emotion analysis of users' comments. *Sensors*. 23(4): 1748. DOI: <https://doi.org/10.3390/s23041748>
- IFCN, 2024** – IFCN (2024). IFCN code of principles. *IFCN*. [Electronic resource]. URL: <https://ifcncodeofprinciples.poynter.org/signatories>
- Islam et al., 2020** – Islam, M.R., Liu, S., Wang, X., Xu, G. (2020). Deep learning for misinformation detection on online social networks: A survey and new perspectives. *Social Network Analysis and Mining*. 10(1): 82. DOI: <https://doi.org/10.1007/s13278-020-00696-x>
- Lewandowsky et al., 2012** – Lewandowsky, S., Ecker, U.K.H., Seifert, C.M., Schwarz, N., Cook, J. (2012). Misinformation and its correction: continued influence and successful debiasing. *Psychological Science in the Public Interest*. 13(3): 106-131. DOI: <https://doi.org/10.1177/1529100612451018>
- MeaningCloud, 2024** – MeaningCloud (2024). *Meaningcloud.Com*. [Electronic resource]. URL: <https://www.meaningcloud.com/developer/excel-365-addin>
- Mir, Sevukan, 2024** – Mir, A.A., Sevukan, R. (2024). Sentiment analysis of Indian Tweets about Covid-19 vaccines. *Journal of Information Science*. 50(5): 1308-1320. DOI: <https://doi.org/10.1177/01655515221118049>
- Novotná et al., 2023** – Novotná, M., Macková, A., Bieliková, K., Rossini, P. (2023). Barriers to participation in polarized online discussions about Covid-19 and the Russo-Ukrainian war. *Media and Communication*. 11(3). DOI: <https://doi.org/10.17645/mac.v11i3.6657>
- Nyhan, Reifler, 2010** – Nyhan, B., Reifler, J. (2010). When Corrections fail: the persistence of political misperceptions. *Political Behavior*. 32(2): 303-330. DOI: <https://doi.org/10.1007/s11109-010-9112-2>
- Pizzagate Conspiracy Theory, 2025** – Pizzagate conspiracy theory. In: *Wikipedia*. 2025. [Electronic resource]. URL: https://en.wikipedia.org/w/index.php?title=Pizzagate_conspiracy_theory&oldid=1286969365

- Porter et al** – Porter, E., Wood, T.J., Kirby, D. (2018). Sex trafficking, Russian infiltration, birth certificates, and pedophilia: a survey experiment correcting fake news. *Journal of Experimental Political Science*. 5(2): 159-164. DOI: <https://doi.org/10.1017/XPS.2017.32>
- Posetti, Matthews, 2018** – Posetti, J., Matthews, A. (2018). A short guide to the history of 'fake news' and disinformation.
- Robertson et al., 2020** – 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. DOI: <https://doi.org/10.1177/1940161219898055>
- Rodríguez-Pérez et al., 2025** – Rodríguez-Pérez, C., Sánchez-del-Vas, R., Tuñón-Navarro, J. (2025). From fact-checking to debunking: the case of elections24 check during the 2024 European elections. *Media and Communication*. 13: 9475. DOI: <https://doi.org/10.17645/mac.9475>
- Scannell et al., 2021** – Scannell, D., Desens, L., Guadagno, M., Tra, Y., Acker, E., Sheridan, K., Rosner, M., Mathieu, J., Fulk, M. (2021). COVID-19 vaccine discourse on Twitter: a content analysis of persuasion techniques, sentiment and mis/disinformation. *Journal of Health Communication*. 26(7): 443-459. DOI: <https://doi.org/10.1080/10810730.2021.195505>
- Soll, 2016** – Soll, J. (2016). The Long and Brutal History of Fake News. *Politico Magazine*. [Electronic resource]. URL: <http://politi.co/2FaV5W9>
- Sudden and Unexpected, 2024** – Sudden and unexpected. 17.08.2024. [Tweet]. *Twitter*. [Electronic resource]. URL: <https://x.com/toobaffled/status/1824714685721284897>
- The Rise and Fall of Facts, 2019** – The Rise and Fall of Facts. 7.12.2019. The Rise and Fall of Facts. *Columbia Journalism Review*. [Electronic resource]. URL: https://web.archive.org/web/20191207195717/https://www.cjr.org/special_report/rise-and-fall-of-fact-checking.php
- Vosoughi et al., 2018** – Vosoughi, S., Roy, D., Aral, S. (2018). The spread of true and false news online. *Science*. 359(6380): 1146-1151. DOI: <https://doi.org/10.1126/science.aap9559>
- Walter et al., 2020** – Walter, N., Cohen, J., Holbert, R.L., Morag, Y. (2020). Fact-checking: a meta-analysis of what works and for whom. *Political Communication*. 37(3): 350-375. DOI: <https://doi.org/10.1080/10584609.2019.1668894>
- Wardle, Derakhshan, 2017** – Wardle, C., Derakhshan, H. (2017). Information disorder: Toward an interdisciplinary framework for research and policy making. Council of Europe. [Electronic resource]. URL: <https://edoc.coe.int/en/media/7495-information-disorder-toward-an-interdisciplinary-framework-for-research-and-policy-making.html>
- Wood, Porter, 2019** – Wood, T., Porter, E. (2019). The elusive backfire effect: mass attitudes' steadfast factual adherence. *Political Behavior*. 41(1): 135-163. DOI: <https://doi.org/10.1007/s11109-018-9443-y>
- Zaeem et al., 2020** – Zaeem, R.N., Li, C., Barber, K.S. (2020). On sentiment of online fake news. *2020 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)*: 760-767. DOI: <https://doi.org/10.1109/ASONAM49781.2020.9381323>
- Zimmer et al., 2019** – Zimmer, F., Scheibe, K., Stock, M., Stock, W.G. (2019). Fake news in social media: bad algorithms or biased users? *Journal of Information Science Theory and Practice*. 7(2): 40-53. DOI: <https://doi.org/10.1633/JISTAP.2019.7.2.4>
- Zollo et al., 2015** – Zollo, F., Novak, P.K., Del Vicario, M., Bessi, A., Mozetič, I., Scala, A., Caldarelli, G., Quattrocioni, W. (2015). Emotional dynamics in the age of misinformation. *PLOS ONE*. 10(9): e0138740. DOI: <https://doi.org/10.1371/journal.pone.0138740>