

## Unravelling the Operational Dynamics of Fact-Checking Platforms: A Comparative Analysis of PIB's Fact Check Unit and Alt News

**Aanchal Prajapati,**

University of Lucknow, India<sup>1</sup>,

Prof. Mukul Srivastava, University of Lucknow, India<sup>2</sup>,

**Sakshi Kichlu,**

Assistant Professor, AAFT, Research Scholar at Manipal University Jaipur<sup>3\*</sup>,

**Dr. Jagriti Basera,**

Assistant Professor BVICAM, Delhi<sup>4</sup>

### Abstract

The proliferation of dubious information has emerged as a global concern, particularly since the advent of social media. In response, numerous fact-checking websites have commenced efforts to counteract this widespread dissemination of misinformation. A press release generated significant attention on March 20, 2024, upon the public announcement that the Fact-Checking Unit of the Press Information Bureau (PIB) would officially be granted statutory body status. This study investigates the operational mechanisms of the Fact Check Unit (FCU), established by the Press Information Bureau, a unit of the Government of India, alongside "Alt News," a non-profit website that operates solely on donations and grants. The research methodology employed in this study entails a comprehensive content analysis aimed at uncovering the operational dynamics involved in cross-checking and verifying facts from both websites. The study systematically evaluates the content disseminated by PIB and Alt News, focusing on the strategies employed to identify disinformation, including the types of claims that are verified, the differences in verification methods, and the transparency in reporting. Additionally, it seeks to illuminate the effectiveness and limitations of these websites. The findings indicate that PIB predominantly concentrates on discrediting political misinformation, whereas Alt News encompasses a broader spectrum of topics. Furthermore, Alt News demonstrates greater transparency and furnishes comprehensive explanations and sources in comparison to PIB. The results further contribute to a profound understanding of the evolving landscape of fact-checking in the digital era and underscore the crucial collaborative efforts necessary to promote the accuracy and integrity of information.

**Keywords:** Disinformation, PIB, Alt News, fact-checking websites, debunking, transparency, content analysis.

### Introduction

The World Economic Forum's 2024 Global Risk Report reveals that one of the major threats people worldwide will face in the coming years is fake news. Sadly, the nation with the highest risk of disinformation is India (Fleck, 2024). The multifaceted use of digital platforms in modern society has democratized access to information, enabling unprecedented levels of connectivity. However, this democratization and rapid proliferation of information have allowed fake news to spread even faster than ever before, posing a pressing concern for the accuracy of information, the reliability of sources, and undermining trust in mainstream media, which threatens societal cohesion and the integrity of public discourse. As a result of this rising concern, fact-checking websites have emerged as pivotal players in the battle against fake news. Even in 2016, there were 34 active fact-checking outlets in 20 countries (Graves & Cherubini, 2016). While some employ a variety of approaches to confirm the veracity of claims or content that are circulated widely online and provide reliable information to counteract falsehoods and deceptive narratives, many are mere paper tigers. Fact-checking websites are conceptualized as hybrid operations that can exhibit some degree of uniformity but are shaped by various logics (Kim & Buzzelli, 2022). Among the plethora of digital fact-checking websites, this research endeavors to analyze the operational dynamics of two prominent entities: the Press Information Bureau (PIB) and Alt News, both of which provide distinct methodologies to address the issue. As the Government of India's designated agency for disseminating information to the media, PIB plays a pivotal role in countering misinformation pertaining to governmental affairs and policies, which were established in November 2019. Furthermore, in March 2024, the Ministry of Electronics and Information Technology officially announced the formation of PIB's fact-check unit as the statutory body authorized to identify misinformation related to the Government of India (PIB, 2024) (ALJAZEERA, 2024).

\* Corresponding Author: Ms. Sakshi Kichlu, Assistant Professor, AAFT, Research Scholar at Manipal University Jaipur, Jaipur, Rajasthan, 303007.

Conversely, Alt News, an independent fact-checking website characterized by a decentralized structure, maintains an unbiased, comprehensive, and transparent operational mechanism, supported by the contributions and donations of its audience. A team of journalists and fact-checkers collaborates in a unified environment.

The significance of comprehending the operational mechanisms of these platforms resides in their potential to shape public discourse, influence opinions, and inform policymaking. This study aims to evaluate the efficacy and limitations of these platforms in mitigating the spread of false information by analysing the methodologies employed by PIB and Alt News in identifying, verifying, and dispelling misinformation.

Furthermore, this study contributes significantly to the scholarly discourse regarding media functioning by furnishing a comparative analysis of fact-checking mechanisms within the Indian context. The threat posed by the disinformation pandemic necessitates a comprehensive understanding of the operational dynamics of fact-checking to formulate well-informed strategies that will uphold the integrity and accuracy of information, particularly in light of the recent announcement concerning the establishment of the PIB's fact-check unit as a statutory entity. This development is poised to effect a substantial transformation in the entirety of India's ecosystem.

In the subsequent sections, this paper not only delve into the methodology employed by both websites but also examines the types of claims they verify, the rigor of their reporting, and the transparency within their processes. Additionally, it discusses the implications of their findings for the media and communication landscape in the digital era. Through this investigation, the study aspires to contribute to a more nuanced understanding of the function, significance, and impact of fact-checking platforms in mitigating the effects of misinformation and fostering a culture of truth and accountability in online discourse.

## **Review of literature**

Previous studies frequently delineate the historical evolution of fact-checking practices and elucidate the establishment of fact-checking organizations as a response to the pervasive nature of misinformation. One study contextualizes the emergence of fact-checking websites within the domain of political discourse. Furthermore, it underscores the contributions of other websites, such as PolitiFact and FactCheck.org, in scrutinizing political claims. This seminal study emphasizes the vital role these websites undertake in fostering accountability and promoting truth and accuracy in public discourse (Nyhan & Reifler, 2010).

A significant body of research was conducted during the pandemic to identify the themes and frequency of the dissemination of fake news during this period. This misinformation was propagated through various media platforms, including mainstream media. Consequently, it was subjected to cross-examination by the Press Information Bureau (PIB), and the thematic research on this issue disclosed how misinformation traverses different languages and media applications (Borgohaln et al., 2023). In a related endeavor, a team of researchers examined the tools required to rectify fake news, providing a comprehensive analysis of various websites, their roles, and their emergence in this context (Sharma et al., 2021).

The attributes of such fact-checking websites remain limited, as demonstrated in a study that thoroughly examined 22 different fact-checking websites. To address this deficiency, the authors provide a delineation of the characteristics of these websites (Pal & Loke, 2019).

A similar study on the operation of fake check websites was conducted during the pandemic. This research uncovers the amount of debunked content produced by these websites, highlights their personal biases in content selection, and examines political polarization. Media literacy has been identified as a means to address this issue, supported by strict government regulations on internet usage (Laskar & Rayaz, 2021).

Extensive research has been conducted to explore the methodologies and tactics employed by fact-checking platforms in their efforts to identify and refute disinformation on a global scale. Additionally, a comprehensive examination of fact-checking websites in the United States was undertaken to illustrate the diverse approaches adopted for content verification, which encompass crowdsourced research, automated algorithms, and manual fact-checking. Such studies underscore the significance of methodological transparency and rigor in enhancing the legitimacy and efficacy of fact-checking initiatives (Vargo et al., 2017).

Numerous research endeavors have sought to evaluate the influence and efficacy of fact-checking campaigns in rectifying disinformation and shaping societal perspectives. In an attempt to assess the effectiveness of fact-checking labels on social media platforms, a study provided nuanced insights into the varying levels of corrective influence, contingent upon individual preferences and preconceived notions. This research emphasizes the complex relationship between fact-checking interventions and audience reception, thereby highlighting the challenges associated with effectively combating the proliferation of misinformation (Guess et al., 2020).

Transparency and accountability are fundamental principles of credible fact-checking methods. A study examines the transparency of these websites in disclosing their sources and methodologies, emphasizing the importance of clear, understandable, and accessible reporting for fostering audience trust. These studies highlight the adherence of these websites to stringent guidelines of transparency and accountability in their daily operations (Haas et al., 2016).

Research comparing various fact-checking websites across a range of contexts has gained prominence in recent years. To facilitate this comparison, a study investigated variations in methodologies, the scope of their coverage, and the influence of Latin American fact-checking websites. This comparative perspective emphasizes the contextual elements that influence fact-checking practices worldwide, thereby highlighting the significance of localized strategies in addressing misinformation (Grinberg et al., 2019).

In synthesizing the aforementioned diverse literature, this study endeavors to furnish a comprehensive understanding of the operational mechanisms of Alt News and PIB fact-checking websites, as well as to facilitate a nuanced comparative analysis of these platforms. By advancing prior research findings, this study further aims to contribute to the ongoing discourse on effective strategies for countering misinformation, promoting information integrity, and mitigating the proliferation of false information in the digital age.

**Methodology** - Particularly in the digital realm, fact-checking websites have emerged as pivotal tools in combatting the proliferation of misinformation and disinformation. An expanding body of research has explored several facets of fact-checking procedures, practices, and their influence on public discourse. Content analysis represents the most appropriate approach for analyzing materials available in print, audio-visual, or digital form (Berelson, 1952) (Krippendorff, 1980) (Hunsinger et al., 2010).

In this study, qualitative content analysis is employed as the empirical research method to determine the variance or mean value of the facts checked by these websites. Each piece of content is rigorously examined to identify key elements such as the nature of the claims, sources utilized for verification, methods of investigation, funding sources, editorial policies, transparency in reporting findings, and the overall effectiveness in debunking misinformation. The sampling technique for this research involves a representative sample of fact-check articles published by the PIB and Alt News on their X (formerly Twitter) accounts during the period of October 2023 to March 2024. For the probability sampling design, a stratified sampling approach is required. The procedure commenced with the selection of a time frame and proceeded to include two well-known fact-checking websites. This particular time frame was chosen to ensure an adequate representation of their fact-checking activities and to provide a sufficient portrayal of their current fact-checking efforts, incorporating any technological advancements. Additionally, the recent development of making PIB the statutory body for government fact-checking prompts researchers to opt for the current time frame (Reddy, 2024). The sample encompasses a wide range of contents, topics, and claims to provide comprehensive insight into the study of methodologies employed by both platforms. This systematic framework consists of predefined categories and subcategories aligned with the research objectives. Furthermore, this research sheds light on the comparative strengths and weaknesses of the fact-checking practices adopted by both websites. It specifically focuses on elucidating prominent questions such as: What are their verification sources? What methodologies do they employ to rectify cases? What topics do they emphasize? Additionally, it examines their transparency and overall effectiveness in the public domain.

The encoded data is analyzed quantitatively to identify patterns, themes, and variations in the methodologies employed by both websites. The hypothesis under examination is:

$H^0$  - There is no significant difference in the type of content rectified by both websites.

$H^1$  - There is a significant difference in the types of content rectified by both websites.

The absence of data on government websites posed challenges in data collection during the study. Given the constraints of time, this research was limited to a data collection period of six months, which also constitutes a limitation.

### **Ethical consideration**

Throughout the entire research process, ethical considerations have been meticulously addressed. These considerations include obtaining the necessary authorization for data collection and analysis, as well as adhering to standards of academic integrity and research ethics.

Through the implementation of this comprehensive approach, the research endeavors to advance the academic discourse on fact-checking methodologies and provide valuable insights regarding the operational mechanisms of PIB and Alt News within the Indian context.

### **Data Analysis and Interpretation**

Within a six-month period, the Press Information Bureau (PIB) published a total of 194 articles, of which 95 were duplicates. In contrast, Alt News debunked and published 222 articles, with 38 being repetitions. Consequently, excluding the duplicate articles, this study comprises a sample of 283 articles, with 99 from PIB and 184 from Alt News, respectively. Throughout the research period, each fact-checked news article was meticulously scrutinized and subsequently categorized into codes. A coding framework was developed to guide the content analysis process.

To ensure consistency and accuracy in data coding, the coding system was continuously refined through pilot testing. The interpretations of the data are grounded in extant literature and relevant theoretical frameworks. To analyze the frequency of the data, it is compiled into a table, with the remainder marked as necessary.

The comparative analysis between the Press Information Bureau (PIB)'s Fact Check Unit and Alt News underscores a substantial disparity in the scope of fact-checking content. To achieve each objective, the assigned codes are as follows to test the hypothesis:

1. News items pertaining to political leaders, ministers, or their respective parties are classified as "politics."
2. Stories concerning voting machines, electoral verdicts, etc. are designated as "election."
3. Viral communications asserting specific policies initiated by the government are categorized as "government policies."
4. The term "communal" denotes religious materials characterized by communal polarization.
5. Items related to war between nations and other international affairs are classified as "International news."
6. Under the headings of "Health, environment & social issues," only content pertaining to these three sectors is included.
7. The term "Miscellaneous" refers to any other viral messages that do not conform to the previously mentioned classifications.

Upon scrutinizing the materials verified by various websites, it was ascertained that the Fact Check Unit of PIB, serving as the primary communication conduit for the Government of India, predominantly verifies claims pertaining to governmental policies, official statements, and refutes allegations concerning official declarations. Inquiries for content examination are submitted by users via email or WhatsApp, with only those pertaining to the Government of India being evaluated. In contrast, Alt News encompasses a wide array of subjects, verifying claims across a diverse range of topics including politics, health, social issues, viral misinformation, as well as matters concerning science and the environment etc. Furthermore, it has established the criteria for the selection of claims, which include:

1. To what extent is the content viral?
2. Who disseminated the content, and what is its origin?
3. What type of claim is it (is it controversial or likely to incite violence)?

Table 1 illustrates the frequency distribution of differential focus on the topics of claims rectified by PIB Fact Check and Alt News, accompanied by percentages and mean values. Based on the availability of content on both respective websites, a total of 283 articles from PIB (N=99) and Alt News (N=283) were examined. This data indicates that PIB is more inclined to debunk false claims related to government policies at a rate of 42.42% (N=42), whereas Alt News concentrated on international affairs at 31% (N=62), political news at 27.17% (N=61), and communal issues at 26.08% (N=52) collectively.

Types of Claim	PIB		Alt News		Total	Mean
	Frequency	Percentage	Frequency	Percentage		
Politics	11	11.11%	50	27.17%	61	30.5
Election	14	14.14%	5	2.71%	19	9.5
Government Policies	42	42.42%	1	0.54%	43	21.5
Communal	4	4.04%	48	26.08%	52	26
International news	2	2.02%	60	32.60%	62	31
Environment, health & Social Issues	14	14.14%	6	3.26%	20	10

Miscellaneous	12	12.12%	14	7.60%	26	13
<b>Total</b>	<b>99</b>	<b>100%</b>	<b>184</b>	<b>100%</b>	<b>283</b>	<b>141.5</b>

**Table 1: Types of claims rectified by PIB Fact Check and Alt news from Oct 2024 to March 2024.**

This disparity indicates that, whereas PIB prioritizes governmental claims and endeavors to amend the public perception of the government, Alt News embraces a more holistic approach by encompassing a wide array of subjects pertinent to public discourse.

#### Testing of hypothesis

As previously elucidated, the T-test is designed to evaluate the hypothesis associated with the study, aiming to either reject or accept the null hypothesis (Gosset, 1908). According to the alternative hypothesis, a significant difference exists in the types of content rectified by both websites, in contrast to the null hypothesis, which asserts that no significant difference exists at all (Neyman & Pearson, 1933).

$H^0$ - There is no significant difference in the types of content rectified by both websites.

$H^1$ - There is a significant difference in the types of content rectified by both websites.

A statistical p-value metric is utilized to compare observed data with the proposed hypothesis. A p-value of 0.05 or lower in a statistical test is frequently regarded as statistically significant, indicating a correlation between the variables and leading to the rejection of the null hypothesis. Conversely, p-values exceeding 0.05 support acceptance of the null hypothesis while refuting the alternative hypothesis. The data obtained from the research is presented in tables consistent with the objectives and hypothesis of the study. Table 2 illustrates the hypothesis testing regarding the types of content corrected by both websites. The p-value is 0.02579814; it is less than 0.05, which signifies a significant difference between them. Therefore, our null hypothesis is rejected, and an alternative hypothesis is accepted.

**Table 2: t-Test: Two-Sample Assuming Unequal Variances**

	PIB	alt news
Mean	14.1428571	26.28571429
Variance	173.47619	637.5714286
Observations	7	7
Hypothesized Mean Difference	12	
df	9	
t Stat	-2.2429237	
<b>P(T&lt;=t) one-tail</b>	<b>0.02579814</b>	
t Critical one-tail	1.83311293	

P(T<=t) two-tail 0.05159627

t Critical two-tail 2.26215716

---

### Verification Sources -

Significant differences were identified in the sources utilized by both websites for the verification of content. The Press Information Bureau (PIB) predominantly relied on official government reports, statements, and press releases for its verifications, as it exclusively verified claims related to government policies. Major content was simply designated as "Fake" without providing a link to the source. Conversely, PIB's sources consist of government data, whereas Alt News employs a more diverse range of credible resources. This includes mainstream media reports, academic research, expert commentary, social media posts, websites, and citizen journalism. In summary, these sources encompass speeches and tweets from prominent individuals, their social media profiles, and lists of individuals deemed suspect on social media platforms. Each article published by Alt News undergoes a thorough cross-examination and is verified through multiple sources. For example, on March 12th, a fabricated communal video was initially scrutinized using a keyword search on YouTube, corroborated by various news reports, followed by relevant tweets, and ultimately, verification was sought from the concerned individual as well. Table 3 illustrates this contrast, highlighting the differing sourcing strategies adopted by the two platforms, with Alt News implementing a more varied approach to information verification.

Verification Sources	PIB	Alt News
Government Sources (Press Release & Officials)	16	46
Mainstream Media Reports	N/A	48
Social Media Post & Citizen Journalism	N/A	52
Academic Research & Subject matter expert	N/A	74
Various Websites data	N/A	68
Not mentioned	83	NIL

**Table 3: Verification sources of PIB Fact Check and Alt news to cross-check the facts from Oct 2024 to March 2024.**

### Methodology of Investigation-

An analysis of fact-checking techniques has revealed that various approaches are utilized by PIB and Alt News to investigate claims. In its fact-checking efforts, PIB primarily depended on internal teams of government officials; however, they frequently do not disclose their methodologies and simply publish the news as "Fake." Conversely, Alt News employed both manual and automated verification processes, integrating traditional fact-checking methods with crowdsourced investigations and open-source digital technologies. These technologies include Google Reverse Image, InVid tools available on the internet, search filters to ascertain date and time, contacting local authorities and relevant individuals, as well as delving into official or primary data accessible for the same, and conducting data analysis, among others.

Methodology of Investigation	PIB		Alt News	
	Frequency	Percentage	Frequency	Percentage
Manual (In-House Team)	N/A	N/A	68	36.95
Automated Tool	N/A	N/A	12	6.52
Crowdsource/ Citizen Engagement	N/A	N/A	26	14.13
Digital Tool & Data Analysis	N/A	N/A	45	24.45
Combination of Manual & Automated tools	N/A	N/A	33	17.93
Total			184	100%

**Table 4: methodologies opted by PIB Fact Check and Alt news to cross-examine the facts from Oct 2024 to March 2024.**

Table 4 indicates that 36.95% of Alt News articles involved manual verification, whereas 6.52% utilized automated tools. This variation in methodology illustrates how fact-checking systems may evolve and adapt in response to the changing landscape of misinformation.

#### Transparency & Reporting Practices-

A key aspect distinguishing PIB and Alt News regarding transparency during their reporting is their approach to fact-checking. PIB appears less transparent about its fact-checking methods and sources, as none of its articles provide detailed explanations or citations for verification. Their reports indicate whether an article is fake or real, accessible through various means. Conversely, Alt News demonstrates a higher level of transparency in disclosing their fact-checking methodologies. They provide links for readers to independently verify specific claims and articulate the context in which these claims were made, using a straightforward writing style.

Transparency & Reporting Practices	PIB	Alt News
Comprehensive Explanation	✗	✓
Citation of Sources & Methodology Description	✗	✓
Clarity in Reporting	✓	✓
Disclosure of Potential Biases/ Conflict of Interest	✗	✓
Accessibility of Fact Checked Articles to the Public	✓	✓

**Table 5: Transparency and reporting practices by PIB Fact Check and Alt news from Oct 2024 to March 2024.**

Table 5 demonstrates that each article provides a detailed explanation, citations, and an overview of the methodology used. This level of transparency boosts Alt News's credibility and fosters greater audience trust. Furthermore, it helps readers grasp the reasoning behind each piece of misleading content.

**Overall Impact & Effectiveness-**

Both PIB and Alt News are renowned and highly regarded websites that have achieved commendable accuracy rates in the debunking of misinformation. However, in terms of citation and coverage by media outlets, Alt News has performed slightly better. On multiple occasions, its fact-checking articles have been disseminated on social media and cited by mainstream media, which indicates its broader reach and effectiveness in the fight against fake news. In contrast, the efforts of PIB contribute to enhancing public awareness and disseminating information related to government plans and policies. As indicated in Table 6, Alt News is notably successful in influencing public opinion and awareness, attributable to its comprehensive approach and transparent reporting practices.

Overall Impact & Effectiveness	PIB	Alt News
Accuracy	✓	✓
Influence on Public & Awareness	✓	✓
Engagement on Social Media	✓	✓
Citation & Coverage by Media	✗	✓

**Table 6: Overall impact and effectiveness by PIB Fact Check and Alt news from Oct 2024 to March 2024.**

**Discussion**

This comparative analysis of the Press Information Bureau and Alt News discerns the operational dynamics and effectiveness of their fact-checking processes in combating misinformation within the Indian context. A comprehensive examination of their fact-checking methodologies, sourcing strategies, reporting practices, transparency, and overall impact reveals several significant findings that assess how information verification is evolving and transforming in the digital era.

In the initial segment of the study, the findings elucidated the significance of the scope and nature of fact-check articles. While the Press Information Bureau (PIB) prioritizes the verification of claims pertaining to government policies and official statements, which serves to clarify misconceptions or misinterpretations, Alt News, as an independent entity, advocates for a multifaceted approach that encompasses a wide array of topics, including politics, health, environment, social issues, and viral misinformation. This diversity in coverage reflects the complexity of misinformation and emphasizes the necessity for comprehensive fact-checking analyses that address a broad spectrum of subjects relevant to public discourse.

Secondly, the disparity in source utilization underscores the significance of strategies in ensuring credibility and reliability during the cross-examination of claims. PIB’s reliance on government sources demonstrates a strong emphasis on authoritative information, while Alt News’s eclectic approach, which incorporates citizen journalism and reports from mainstream media, underscores the value of diversifying information sources to comprehensively capture the complexity of the contemporary information ecosystem.

In the latter stages, the study posits the significance of transparency in fostering credibility and trust within fact-checking practices. The reporting procedures of Alt News, which are distinguished by comprehensive explanations, sources, and descriptions of methodology, enhance its credibility and efficacy in debunking misinformation. Conversely, PIB’s comparatively limited transparency in reporting indicates challenges related to its credibility and suggests areas for improvement concerning the accessibility and clarity of its fact-checking procedures.

Overall, PIB and Alt News demonstrate impressive precision and effectiveness in combating misinformation. They are helping to promote information integrity and accountability in public discussions. However, Alt News holds a slight edge in public engagement and impact due to its broader reach, diverse sources, robust fact-checking methodology, and transparent reporting standards. This suggests that Alt News could serve as a benchmark for successful fact-checking initiatives. To combat disinformation and enhance information integrity in the digital age, these findings highlight the nuanced strategies and operational dynamics of fact-checking platforms. They also underscore the importance of transparency and a variety of sources and methodologies.



In conclusion, this comparative analysis of PIB and Alt News delineates the genealogy of operational dynamics of fact-checking platforms and elucidates the importance of transparency, diversity of sources, and rigorous methodologies for verifying facts to combat misinformation. As the prevalence of fake news continues to represent a substantial challenge to the integrity of public discourse, fact-checking platforms, in collaboration with legislative bodies, mainstream media, and society at large, can address this issue. It has become imperative that all stakeholders collaborate to enhance information accuracy and trustworthiness in this digital era.

## References

1. ALJAZEERA. (2024, March 21). India top court stays government move to form fact check unit under IT laws. Al Jazeera. <https://www.aljazeera.com/news/2024/3/21/india-top-court-stays-government-move-to-form-fact-check-unit-under-it-laws>
2. Berelson, B. (1952). *Content Analysis in Communication Research* (1st ed.). Free Press.
3. Borgohain, P., Bhatt, A., Borgohain, T., & Gamit, R. m. (2023, jan 13). A Thematic Analysis of Fake News in India During the Pandemic. *Science & Technology Libraries*, 42(3), 297-307. <https://doi.org/10.1080/0194262X.2022.2151060>
4. Fleck, A. (2024, January 25). Survey Finds False Information Risk Highest in India. *The Wire*. Retrieved March 11, 2024, from <https://thewire.in/media/survey-finds-false-information-risk-highest-in-india>
5. Gosset, W. S. (1908). The t-distribution. pennstate. <https://online.stat.psu.edu/stat800/lesson/4/4.6/4.6.2#:~:text=In%201908%2C%20William%20Sealy%20Gosset,for%20different%20sample%20size%2C%20n>.
6. Graves, L., & Cherubini, F. (2016). The Rise of Fact-Checking Sites in Europe. Reuters Institute Digital News Report. Reuters Institute for the study of jourlaism. <https://ora.ox.ac.uk/objects/uuid:d55ef650-e351-4526-b942-6c9e00129ad7>
7. Grinberg, N., Josheph, K., Fridland, L., & Thompson, B. S. (2019, jan 25). Fake news on Twitter during the 2016 U.S. presidential election. *science*, 363(6425), 374-378. 10.1126/science.aau2706
8. Guess, A. M., Lerner, M., Lyons, B., Montgomery, J. M., Nyhan, B., Reifler, J., & Sircar, N. (2020, june 22). A digital media literacy intervention increases discernment between mainstream and false news in the United States and India. *PNAS*, 117(27), 15536-15545.
9. Hunsinger, J., Klastrup, L., & Allen, M. (Eds.). (2010). *International Handbook of Internet Research*. Springer.
10. Kim, B., & Buzzelli, N. R. (2022, July 1). The Logics of Fact-Checking Website Operations. *Digital Journalism*, 1(1), 1-24. <https://doi.org/10.1080/21670811.2022.2089707>
11. Krippendorff, K. (1980). *Content Analysis: An Introduction to Its Methodology*. Sage.
12. Laskar, K. A., & Rayaz, M. (2021, April 01). Mapping the fake news infodemic amidst the COVID-19 pandemic: A study of Indian fact-checking websites. *Journal of Arab & Muslim Media Research*, 14(1), 93-116. [https://doi.org/10.1386/jammr\\_00026\\_1](https://doi.org/10.1386/jammr_00026_1)
13. Neyman, J., & Pearson, E. S. (1933, Feburary 16). On the problem of the most efficient tests of statistical hypotheses. *PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY*, 231(694), 289-337. <https://doi.org/10.1098/rsta.1933.0009>
14. Nyhan, B., & Reifler, J. (2010, june). When Corrections Fail: The Persistence of Political Misperceptions. *Springer*, 32(2), 303-330. <https://doi.org/10.1007/s11109-010-9112-2>
15. Pal, A., & Loke, C. (2019, August 16). Communicating Fact to Combat Fake: Analysis of Fact-Checking Websites. *ITCC '19: Proceedings of the 2019 International Conference on Information Technology and Computer Communications*, 1(1), 66-73.
16. PIB, D. (2024, March 20). Government notifies PIB's Fact Check Unit under IT Rules 2021. Press Information Bureau. <https://pib.gov.in/PressReleasePage.aspx?PRID=2015792>
17. Reddy, S. (2024, March 21). PIB's fact-checking unit: Can the Centre decide what is true about itself and what is not? *The Indian Express*. <https://indianexpress.com/article/opinion/columns/pib-fact-check-unit-centre-what-is-true-what-is-not-9226933/>
18. Sharma, D. k., Garg, S., & Shrivastava, P. (2021, April 5). Evaluation of Tools and Extension for Fake News Detection. *IEEE Xplore*. <https://ieeexplore.ieee.org/document/9388356>
19. Vargo, C. j., Guo, L., & Amazeen, M. A. (2017, june). The agenda-setting power of fake news: A big data analysis of the online media landscape from 2014 to 2016. *new media and society*, 20(9), 1-22. 10.1177/1461444817712086