

A Triadic Analysis of Fake News: Drivers, Technological Features, and Societal Impacts on Social Media

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Abstract

This study examines the multifaceted nature of fake news proliferation across digital platforms, with a focus on psychological drivers, technological amplifiers, and real-world consequences. Drawing on 51 peer-reviewed articles published between 2020 and 2025, the study synthesises findings using thematic analysis and co-occurrence mapping. Three interrelated themes emerge: (1) the role of cognitive biases, emotional triggers, and political identities in shaping belief and sharing behaviours; (2) the influence of algorithms, platform design, and multimodal content in amplifying misinformation; and (3) the tangible consequences of fake news in public health, democratic processes, and consumer trust. The review introduces a Triadic Interplay Model to explain individual motivations, a Force Field Matrix to analyse virality, and a Multi-Domain Impact Radar to visualise sectoral effects. Findings reveal the urgent need for interdisciplinary solutions that combine technological, educational, regulatory, and ethical strategies. The study concludes by offering actionable recommendations for policymakers, platforms, and educators to foster a more resilient and media-literate society.

Keywords: *Fake News, Digital Platforms, Misinformation Amplification, Cognitive and Emotional Drivers. Media Literacy and Regulation*

1.0 Introduction

The rise of digital media has dramatically transformed how information is produced, shared and consumed. Alongside these innovations, the global information landscape has become increasingly vulnerable to fake news, fabricated or misleading content presented as legitimate journalism. While fake news is not a new phenomenon, its reach and influence have been exponentially amplified through social media platforms and algorithm-driven recommendation systems (Zhou & Zafarani, 2021). This shift has led to widespread concern about its potential to distort public understanding, undermine democratic processes and jeopardise public health (Giannella & Lombardo, 2022; Herrera & Ruiz, 2022).

Fake news now exists within a highly complex ecosystem, sustained by user engagement, technological infrastructures and sociopolitical contexts. For example, studies show that individuals are more likely to believe and share false content when it aligns with their political beliefs or moral outrage phenomena linked to political brand hate and emotional contagion (Ahmed et al., 2023). At the same time, misinformation is further reinforced by cognitive biases such as the illusory truth effect and confirmation bias, which increase the perceived accuracy of repeated or familiar falsehoods (Pluviano et al., 2017; Pennycook & Rand, 2019).

The COVID-19 pandemic intensified this challenge, ushering in an "infodemic", a term used to describe the rapid spread of both accurate and false information, often with serious consequences. Studies in health communication contexts indicate that news exposure, media literacy and trust levels significantly shape the public's belief in fake health-related content (Basu & Mohapatra, 2022; Obi & Okafor, 2021). Disinformation has also been found to reduce vaccine uptake, alter consumer behaviour, and even affect access to critical services such as dental care during the pandemic (Lombardi & Russo, 2022).

Fake news is not only a behavioural issue but also a systemic and technological one. Detection and mitigation efforts have evolved to include machine learning, hybrid deep learning models and multimodal content analysis (Zhang & Chen, 2022; Gao et al., 2021). However, misinformation continues to thrive, exposing gaps in platform governance, detection capabilities and public resilience. Importantly, the impact of fake news is not uniformly experienced; somewhat, it is shaped by political context, digital literacy, and the design of online environments (Santos & Lopez, 2022).

1.1 Problem Statement

Despite a growing body of research, the fake news phenomenon remains difficult to contain due to its entrenchment in psychological, technological and structural processes. Most existing models examine isolated dimensions of misinformation, such as content analysis, belief formation, or machine learning classification, without integrating the full spectrum of drivers and consequences. Furthermore, limited attention has been paid to the influence of political, cultural and emotional factors in both the creation and reception of fake news. There is a clear need for an interdisciplinary framework that synthesises the cognitive, social, technological and systemic mechanisms contributing to the creation, sharing, and belief in fake news.

1.2 Research Questions

1. What are the primary psychological, emotional and political motivations that drive individuals to share or believe in fake news?
2. How do algorithms, platform architectures and multimodal content features contribute to the virality of fake news?
3. What are the real-world impacts of fake news in critical domains such as public health, elections and consumer trust?

1.3 Research Objectives

1. To explore the roles of political affect, moral consciousness, and cognitive biases in the sharing of fake news and the formation of beliefs.
2. To evaluate the technological mechanisms (e.g., deep learning, hybrid detection systems) used to detect and counter misinformation.
3. To assess the tangible impacts of fake news in public health (e.g., COVID-19, vaccine hesitancy) and political communication (e.g., elections, candidate evaluations).

2.0 Literature Review

2.1 Mechanisms and Detection of Fake News

The detection and analysis of fake news have advanced significantly, particularly with the use of machine learning and natural language processing (NLP). For example, Gao, Li, and Wang (2021) employed a hybrid feature fusion model on Chinese social media, thereby enhancing detection accuracy by combining textual and semantic features. Similarly, Kumar and Singh (2022) introduced topological and sequential neural network architectures that effectively identify patterns of misinformation. Autoencoder-based, unsupervised anomaly detection has also shown promise in situations with limited labelled data (Zhang & Chen, 2022). However, these methods often struggle with cross-domain generalisation. To address this, Zhang and Chen (2022) proposed a label-irrelevant multi-domain feature alignment approach to improve adaptability in fake news detection systems.

2.2 Psychological and Social Dynamics

Cognitive and emotional processes significantly influence the spread and acceptance of fake news. Pluviano, Watt, and Della Sala (2017) documented the illusory truth effect, where repeated exposure to falsehoods increases their perceived credibility. Pennycook and Rand (2019) demonstrated

that encouraging users to engage in deliberative thinking reduces belief in false headlines, though not necessarily in true ones. Nonetheless, emotional resonance and political alignment often outweigh factual accuracy in determining what users share. Rubin and Lyu (2021) found that political concordance has a strong influence on the belief and recall of misinformation. Ahmed, Bashir, Hamidon, Khan, and Rizvi (2023) explored the emotional triggers of sharing political deepfake content, identifying political brand hate and moral outrage as key motivators. Similarly, Santos and Lopez (2022) demonstrated that climate change disinformation triggers cognitive dissonance and defensive reactions, thereby limiting the effectiveness of factual corrections.

2.3 Contextual Applications: COVID-19 and Political Elections

The COVID-19 pandemic and global elections provide fertile ground for fake news research. Basu and Mohapatra (2022) investigated the relationship between trust in news sources and media exposure, as well as their correlation with the belief in COVID-19 misinformation. In Nigeria, Obi and Okafor (2021) found that improving undergraduates' information literacy significantly reduced susceptibility to fake pandemic-related news. In Italy, Lombardi and Russo (2022) used quasi-experimental methods to show a causal relationship between exposure to fake news and vaccine hesitancy. In a political context, Fernández and Reyes (2022) found that exposure to electoral misinformation in Mexico influenced voters' evaluations of candidates. Herrera and Ruiz (2022) further demonstrated how corrections influence both political opinions and memory recall, highlighting the need for context-sensitive intervention strategies.

2.4 Consequences: Democratic, Social and Economic

Fake news has serious consequences across democratic, social, and economic domains. Álvarez (2020) discussed how the post-truth era undermines democratic institutions by allowing emotional and ideological appeals to override empirical evidence. Giannella and Lombardo (2022) employed the capability approach to illustrate how disinformation impairs public health by limiting individuals' ability to make informed decisions. In consumer behaviour research, Valkenburg and Schouten (2021) found that exposure to fake news erodes brand trust and increases scepticism toward marketing messages. Economically, Lee and Müller (2023) showed that fake news shocks can lead to significant fluctuations in US and EU stock markets, emphasising the financial volatility that misinformation can induce.

2.5 Technological and Systemic Interventions

Technological solutions are essential in mitigating the spread of fake news, particularly in high-volume digital environments. Maheshwari and Verma (2022) highlighted the efficacy of deep learning models for text classification across multiple categories of misinformation. Wang and Zhao (2022) proposed a model for detecting image-text mismatches, addressing the growing prevalence of multimodal fake news. Dutta and Sengupta (2023) introduced blockchain-based frameworks for tracking the authenticity of supply chain and media content, showcasing how transparency technologies can mitigate systemic risks. Obi and Okafor (2021) emphasised the role of information literacy education in improving users' resilience to misinformation. Moreover, research by Krueger and Keller (2022) on combining focus groups with experiments (Reference 8) underscores the importance of engaging participants in ecologically valid settings to better understand their interactions with false content.

2.6 Theoretical Frameworks and Integrated Models

There is increasing recognition of the need for comprehensive frameworks to understand fake news. Zhou and Zafarani (2021) conducted a systematic review outlining the limitations and inconsistencies in current detection models and proposed pathways for more unified approaches. Santos and Gomez (2023) proposed a multi-layered conceptual model that integrates cognitive, social, and

systemic factors in the creation and dissemination of fake news. Meanwhile, Bratton and Holtz (2021) argued that platforms themselves must be re-examined not merely as passive carriers of misinformation but as active amplifiers of political narratives, highlighting the need to move beyond content-level solutions to structural and design-focused ones.

2.7 Research Gaps

The literature reviewed illustrates the multidimensionality of fake news research spanning detection technologies, cognitive and emotional psychology, media literacy and systemic policy responses. While artificial intelligence tools have improved detection rates, they often lack robustness across different content domains and platforms (Zhang & Chen, 2022; Zhou & Zafarani, 2021). Psychological research continues to emphasise the limitations of factual corrections in the face of emotional and partisan motivations (Pennycook & Rand, 2019; Rubin & Lyu, 2021).

Contextual studies on COVID-19 misinformation in Nigeria and political disinformation in Mexico demonstrate the global relevance of this issue, while also exposing gaps in longitudinal, cross-cultural, and comparative analyses (Obi & Okafor, 2021; Fernández & Reyes, 2022). The need for interdisciplinary models that account for technological, psychological and cultural factors remains a pressing concern for both researchers and practitioners. An integrated theoretical framework that can accommodate these diverse strands is essential for more effective policy responses, educational initiatives and platform governance.

3.0 Research Methodology

This study employs a systematic review approach to critically examine the psychological, technological, and socio-political dimensions of fake news across digital platforms. Given the interdisciplinary nature of fake news and its wide-ranging implications, this method enables the integration of diverse empirical findings, conceptual models, and theoretical perspectives across multiple domains (Page et al., 2021; Tricco et al., 2018). A Systematic Literature Review (SLR) was adopted as the primary research method, as it enables a structured, transparent, and replicable process for synthesising existing evidence. Given the research objectives, to synthesise existing research and provide comprehensive insights, and to develop practical recommendations for policymakers, an SLR is the most appropriate approach. It enables a critical evaluation of a broad range of empirical studies, facilitating the identification of patterns, gaps, and emerging themes across various disciplines and policy domains. To ensure methodological rigour, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol developed by Moher et al. (2009) was employed.

3.1 Identification

Several crucial procedures from the systematic review approach were employed in this study to select a substantial body of relevant literature. After selecting keywords, similar terms were researched using dictionaries, thesauri, encyclopedias, and prior studies. After crafting search phrases for the Scopus databases, all pertinent terms were found (refer to Table 2). A total of 2,584 papers pertinent to the research issue were successfully retrieved from these three databases during the first phase of the systematic review.

TABLE 1
The Search Strings

Scopus	TITLE-ABS-KEY (Fake news) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (EXACTKEYWORD , "Fake News") OR LIMIT-TO (EXACTKEYWORD , "Social Media") OR LIMIT-TO (EXACTKEYWORD , "Disinformation") OR LIMIT-TO (EXACTKEYWORD , "Fake Detection") OR LIMIT-TO (EXACTKEYWORD , "Misinformation") OR LIMIT-TO (EXACTKEYWORD , "Social Networking
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(online)" ) OR LIMIT-TO ( EXACTKEYWORD , "Covid-19" ) OR LIMIT-TO (
EXACTKEYWORD , "Human" ) OR LIMIT-TO ( EXACTKEYWORD , "Fake
News Detection" ) OR LIMIT-TO ( EXACTKEYWORD , "Deep Learning" ) OR
LIMIT-TO ( EXACTKEYWORD , "Text Processing" ) OR LIMIT-TO (
EXACTKEYWORD , "Journalism" ) OR LIMIT-TO ( EXACTKEYWORD ,
"Social Networks" ) OR LIMIT-TO ( EXACTKEYWORD , "Facebook" ) OR
LIMIT-TO ( EXACTKEYWORD , "Post-truth" ) OR LIMIT-TO (
EXACTKEYWORD , "Public Health" ) OR LIMIT-TO ( EXACTKEYWORD ,
"Pandemics" ) OR LIMIT-TO ( EXACTKEYWORD , "Politics" ) OR LIMIT-TO
( EXACTKEYWORD , "Vaccination" ) OR LIMIT-TO ( EXACTKEYWORD ,
"News Articles" ) OR LIMIT-TO ( EXACTKEYWORD , "Media" ) ) AND (
LIMIT-TO ( SRCTYPE , "j" ) ) AND ( LIMIT-TO ( PUBSTAGE , "final" ) ) AND
( LIMIT-TO ( SUBJAREA , "SOCI" ) OR LIMIT-TO ( SUBJAREA , "ARTS" )
OR LIMIT-TO ( SUBJAREA , "BUSI" ) OR LIMIT-TO ( SUBJAREA , "PSYC"
) OR LIMIT-TO ( SUBJAREA , "DECI" ) OR LIMIT-TO ( SUBJAREA , "ECON"
))
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3.2 Screening

The collection of possibly pertinent research items is assessed in the screening process to see whether they are consistent with the predetermined research questions. Choosing research topics linked to fake news are examples of content-related criteria that are frequently applied in this stage. Duplicate papers are now eliminated from the search results. Fifty-five were eliminated in the first screening stage, and 2,529 papers were reviewed in the second stage using different study-specific exclusion and inclusion criteria (refer to Table 2). Since research papers are the major source of actionable advice, the literature was the key criterion that was used. Not included in the most recent study were reviews, meta-syntheses, meta-analyses, books, book series, chapters, and conference proceedings. Additionally, the review was limited to publications in English and focused only on the years 2020-2024.

TABLE 2

The Selection Criterion in Searching

Criterion	Inclusion	Exclusion
Language	English	Non-English
Timeline	2020 – 2025	< 2020
Literature type	Journal (Article)	Conference, Book, Book chapter, Review
Publication Stage	Final	In Press
Subject	Business, management and accounting, social sciences, Arts and humanities, Psychology,	None

4.3 Eligibility

A collection of 52 articles was put together during the third stage, which is known as the eligibility evaluation. In order to verify that the papers matched the inclusion criteria and were pertinent to the research goals of the ongoing study, a thorough review of the titles and body of each article was carried out during this phase. Consequently, a total of 51 articles are still pending review after excluding one paper was in press.

4.4 Data Abstraction and Analysis

This study examined and synthesised a range of research designs using an integrative analysis as one of the assessment methodologies. The objective of the competent study was to identify pertinent subjects and subtopics. The initial phase of the theme's development was the data collection phase. Figure 2 illustrates how the writers carefully examined a collection of 51 articles to identify claims or information relevant to the subjects of the current investigation. The authors then assessed the noteworthy research that is currently being conducted on fake news. Investigations are being conducted into the research findings and the methods applied in all the studies. The author then collaborated with other co-authors to develop themes based on the data presented in the background of this study. Throughout the data analysis process, observations, opinions, puzzles, and other ideas pertinent to the interpretation of the data were recorded in a log. To determine whether the theme design process was inconsistent in any way, the writers ultimately compared the outcomes. It's important to note that the authors debate any differences in opinion among the notions with one another. The tests were conducted by two specialists with expertise in fake news to verify the veracity of the difficulties. By establishing domain validity, the expert review step helped guarantee the significance, sufficiency, and clarity of each sub-theme. The author has adjusted at his or her discretion in response to expert opinions and input.

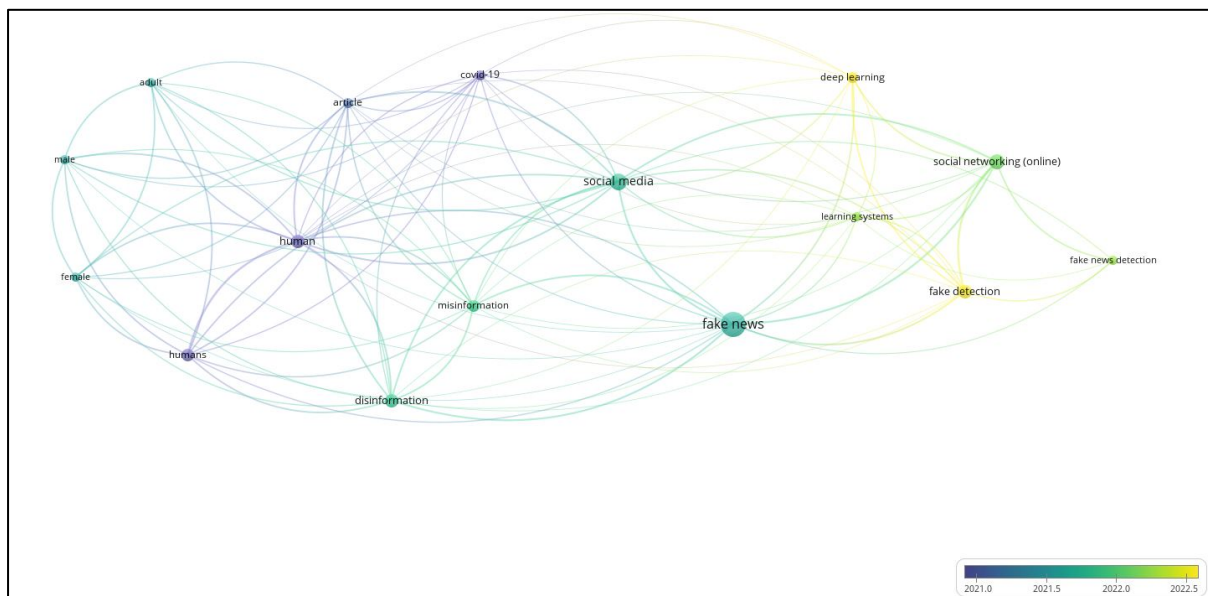


Figure 1. Co-occurrence Mapping

To complement the qualitative synthesis of this Systematic Literature Review, a co-occurrence keyword mapping was conducted using VOSviewer. Although not a core bibliometric analysis, this visual mapping tool served as a preliminary validation technique to ensure the coherence and relevance of recurring themes across the dataset. Articles published between 2020 and 2025 were analysed to identify common conceptual linkages. The visualisation (Figure) illustrates how terms like “fake news,” “disinformation,” and “social media” cluster centrally, while emerging technologies such as “deep learning” and “fake news detection” appear increasingly frequently towards 2022. This temporal transition confirms a thematic shift from human-centred misinformation during COVID-19 to technology-driven detection frameworks, aligning with the triadic structure of this review: psychological, technological, and real-world implications.

Thematic coding was initially conducted manually to identify recurring concepts and patterns across the selected studies. Using an inductive approach, recurring ideas related to misinformation, technological interventions, and behavioural responses were coded and grouped into potential themes.

These initial codes were iteratively refined through cross-checking with theoretical frameworks from the misinformation and technology adoption literature. To ensure reliability, thematic coherence was validated using VOSviewer keyword co-occurrence mapping, which confirmed the conceptual alignment of the coded themes.

TABLE 3

Number of Articles Being Reviewed and Excluded

<i>Stages</i>	<i>Number of articles being reviewed</i>	<i>Number of articles being excluded</i>
One	2,584	None
Two (Language)	2,529	55
Three (Time frame)	52	2,477
Fourth (Publication Stage)	51	1

4.0 Findings

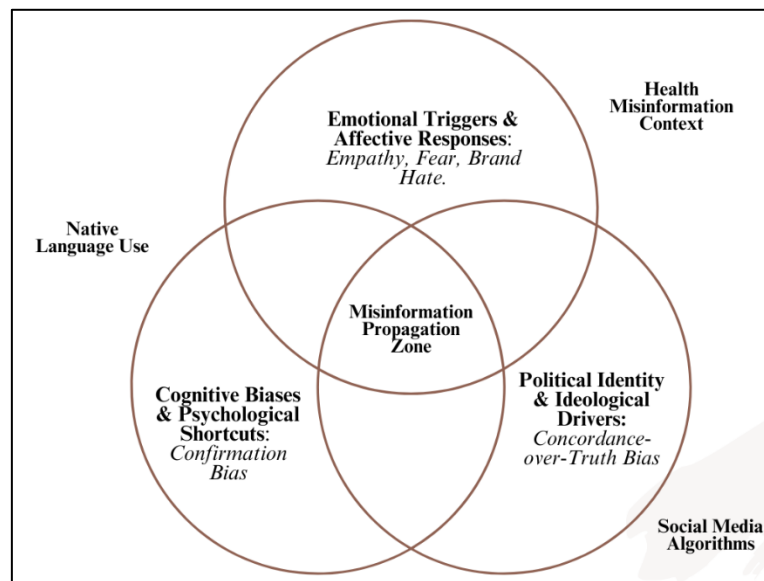


Figure 2. Triadic Interplay Model of Fake News Motivation

The Triadic Interplay Model of Fake News Motivation illustrated above demonstrates the interconnected psychological, emotional, and political factors that drive individuals to believe in or share fake news. Presented as a multilayered Venn diagram, the model comprises three overlapping circles: Cognitive-Psychological Drivers (e.g., confirmation bias, cognitive dissonance, and heuristic shortcuts), Affective-Emotional Triggers (such as fear, anger, anxiety, or moral outrage), and Ideological-Political Motivations (including partisanship, identity protection, and distrust in mainstream media). At the intersection of all three lies the epicentre of fake news susceptibility and propagation, where individuals are not only psychologically primed but also emotionally charged and ideologically aligned to absorb and disseminate misinformation. The overlapping zones illustrate how each factor amplifies the others; for instance, a strong political identity intensifies emotional responses,

which in turn heightens cognitive biases. This model demonstrates that combating fake news necessitates a multifaceted approach that simultaneously addresses cognition, emotion, and ideological framing.

TABLE 4

Three-Dimensional Force Field Matrix Force of Fake News Virality

	Drivers	Facilitators	Amplifiers
Algorithms	Engagement-maximised ranking-Graph propagation (Jung et al.)	Personalisation filters-Algorithmic bias feedback loop	Boosts viral/sensational content (Kozik et al.)
Architecture	Retweet chains- Threaded visibility mechanisms	Trending tabs- Embedded links	Thread-centric virality (Shelke & Attar)
Multimodal Content	Text-image mismatch- Visually persuasive layouts (Gupta et al.)	Automated image-text alignment (Wang et al.)	Emotional & cognitive hooks (Hu et al.)

The Three-Dimensional Force Field Matrix (Refer to Table 1) illustrates the dynamic interplay of technological, structural, and multimodal content forces that drive the virality of fake news. Each axis of the matrix represents a category of influence: Technological includes algorithmic sorting, engagement prioritisation, and diffusion models; Structural encompasses platform affordances such as retweet mechanisms, comment threads, and trending features; and Multimodal Content involves the strategic use of imagery, video, and cross-modal mismatches. At the intersection of these forces lies the amplification zone, where misinformation is most likely to thrive. The matrix illustrates that fake news is not merely the result of a single factor, but rather a convergence of algorithmic incentives, platform design choices, and emotionally manipulative content strategies. This layered approach shows the need for holistic intervention: isolating one domain (e.g., algorithm tweaks) without addressing platform structures or content dynamics is insufficient. Therefore, the matrix emphasises the importance of coordinated efforts in detection, policy reform, and human-centred platform governance.

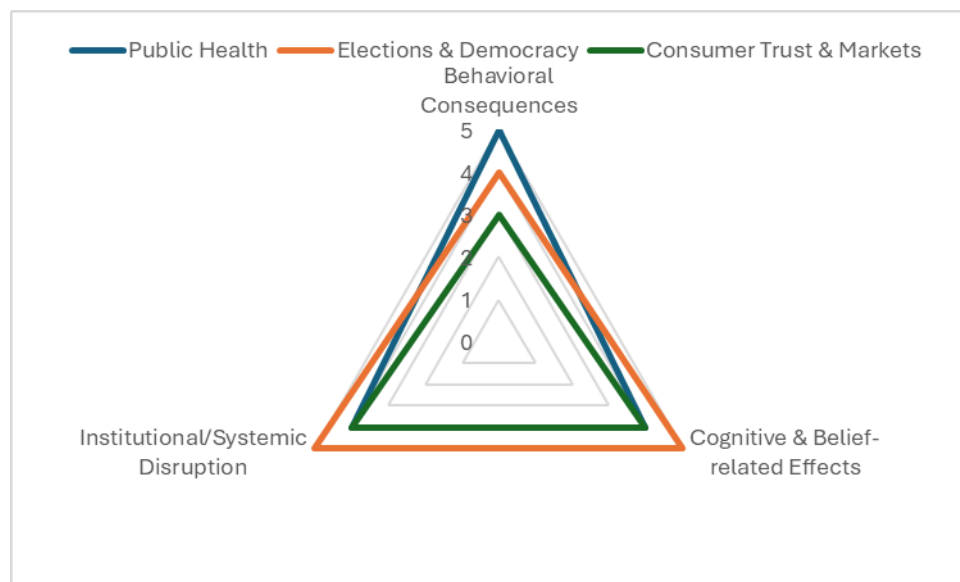


Figure 3: Multi-Domain Impact Radar Chart on Real-world Impacts of Fake News

The Multi-Domain Impact Radar Chart presented above captures the pervasive and multidimensional consequences of fake news across three critical societal sectors: public health, democratic governance, and consumer trust. In public health, behavioural impacts such as vaccine hesitancy and the spread of harmful myths score highest, driven by emotional and interpersonal trust dynamics. Elections and democracy exhibit the most potent cognitive and institutional effects, including

voter manipulation, polarisation, and erosion of civic confidence. Consumer markets face moderate to high consequences across all categories, with fake news undermining brand trust, influencing financial markets, and manipulating consumer choices. The radar chart's layered format illustrates how the intensity and nature of fake news impacts vary by sector while also revealing intersecting vulnerabilities. This visualisation provides a strategic tool for identifying which interventions, media literacy, regulatory oversight, or digital governance, should be prioritised in each domain. Ultimately, the chart underscores the necessity for a coordinated, interdisciplinary approach to address the widespread societal impacts of disinformation.

5.0 Discussion

5.1 Emotional and Identity-Based Motivations in the Spread of Fake News

Psychological traits, cognitive biases, emotional triggers and affective responses, as well as political ideologies, are intertwined with identity-driven motivations. Rather than acting as independent forces, these dimensions often interact, shaping individual responses to misinformation in complex and usually unconscious ways.

At the cognitive level, the belief in and dissemination of fake news are often not failures of intelligence but rather the result of deeply ingrained psychological shortcuts. Sharma et al. (2023) highlight how individuals demonstrate a reduced intention to verify political deepfake videos when these align with their prior ideological beliefs. This illustrates a classic case of confirmation bias, where congruent information is accepted at face value, bypassing critical scrutiny. The automaticity of belief is further complicated by selective exposure and cognitive dissonance. As Wolff and Taddicken (2022) explain, even individuals who are not ideologically extreme may fall prey to disinformation when it triggers internal discomfort or challenges their worldview.

Not all findings, however, agree that irrational thinking dominates our interaction with fake news. Nielsen et al. (2019) propose that individuals can, in theory, apply Bayesian reasoning to make informed decisions even in the face of uncertainty. However, in real-world scenarios, such rationalism is often covered by intuitive, fast thinking. Bago et al. (2020) empirically demonstrate this dual-process conflict: participants initially believe fake news under cognitive load, but accuracy improves when deliberative reasoning is permitted.

The illusion of personal immunity, known as the third-person effect, plays a key role in this context. According to Atay and Acerbi (2023), people often believe that others are more susceptible to misinformation than themselves. Paradoxically, this belief leads them to share alarmist content as a precaution, thereby intensifying the very problem they seek to mitigate. Furthermore, the illusory truth effect, where repetition increases the perceived truthfulness, has been confirmed by both Wu (2022) and Unkelbach et al. (2019). Over time, familiarity can become equated with credibility, thereby embedding falsehoods in memory.

Ideological filters exacerbate this cognitive vulnerability. Schwalbe et al. (2024) introduce the "concordance-over-truth" bias, demonstrating that even individuals with high analytical skills are more likely to discern the truth accurately only when it aligns with their political stance. Meanwhile, social rewards further distort information processing. Lim and Bentley (2022) illustrate how the desire for attention leads individuals to exaggerate their opinions online, reinforcing a false consensus effect and increasing the virality of fake news. At its extreme, as Miller (2018) notes, the rise of "anti-thinking" - the avoidance of critical reflection to reduce discomfort - can make individuals highly receptive to disinformation, particularly when it offers emotionally soothing or simplistic narratives.

Even linguistic factors modulate susceptibility. Kreyßig and Krautz (2019) found that individuals exhibit stronger emotional responses and potentially greater belief when engaging with lies in their native language, suggesting a cognitive-emotional overlap in misinformation processing. In health contexts, Goh et al. (2024) demonstrate how confirmation bias, coupled with distrust in mainstream medicine, can lead vulnerable individuals to accept unproven treatments. Wahlheim et al. (2020) indicate that targeted reminders and corrective interventions can counteract memory-related biases,

thereby enhancing belief accuracy. Thus, cognitive biases do not operate in isolation; they are modulated by context, ideology, and emotional tone. Recognising these patterns is crucial for designing effective misinformation interventions.

While cognitive processes shape how we think about fake news, our emotions often dictate how we respond to it. Emotional triggers, ranging from hate and fear to hope and dissonance, are powerful motivators for engaging with misinformation. Sharma et al. (2023) identify political brand hate as a significant emotional catalyst. In this context, fake news is not merely shared out of belief but as an act of revenge, targeting disliked political entities. This weaponisation of misinformation reflects a deeper emotional mechanism of retaliation.

Emotional engagement with fake news is not limited to ideologically committed individuals. Wolff and Taddicken (2022) demonstrate that even neutral users experience emotional dissonance when confronted with content that challenges their beliefs. This dissonance prompts coping strategies such as rationalisation or disengagement, inadvertently facilitating the spread of fake news. Moreover, empathetic concern can paradoxically fuel the spread of misinformation. Atay and Acerbi (2023) report that individuals who fear the effects of misinformation on "distant others" are more likely to share alarmist content, motivated by a desire to protect society rather than to deceive it.

Social validation adds another emotional layer. Lim and Bentley (2022) highlight that attention-seeking behaviour, rooted in the emotional need for recognition, encourages individuals to adopt sensationalist tones, often at the expense of truth. In these scenarios, fake news becomes a performative act rather than a communicative one.

Vulnerability and desperation also play crucial roles in the spread of health misinformation. Goh et al. (2024) found that individuals suffering from chronic illnesses, or those who are fearful of medical side effects, may emotionally gravitate towards "alternative cures," even when such information lacks scientific validity. Psychological defence mechanisms further entrench this emotional reliance. Miller (2018) argues that some people engage with fake news as a form of emotional avoidance, embracing oversimplified narratives that provide comfort in times of uncertainty.

Even the language in which misinformation is presented can amplify its emotional resonance. Kreyßig and Krautz (2019) observed that lies delivered in a person's native language elicit stronger emotional reactions, potentially increasing their persuasive power. These findings collectively suggest that combating misinformation requires not only rational counterarguments but also emotional literacy. Emotional engagement is not merely a side effect; it is central to the transmission and uptake of fake news.

Beyond cognition and emotion lies a third, deeply social force, political identity. Fake news often serves as a vehicle for asserting group membership, preserving moral superiority, and expressing ideological hostility. Sharma et al. (2023) encapsulate this dynamic by demonstrating how ideological incompatibility with a political party motivates individuals to share fake news as a form of identity defence and moral self-preservation.

However, ideology does not universally dictate behaviour. Wolff and Taddicken (2022) suggest that, among neutral users, political identity may be less influential, with misinformation engagement being shaped more by emotional dissonance than by ideological rigidity. In stark contrast, Schwalbe et al. (2024) emphasise that, among politically extreme individuals, concordance with political beliefs overwhelmingly governs truth judgments and sharing intentions. These findings reinforce the notion that identity-driven motivations often eclipse objective accuracy in highly polarised environments.

The role of deliberation, however, complicates the narrative of identity. Bago et al. (2020) find that political ideology does not significantly alter belief in fake news when individuals engage in deliberative reasoning, indicating that identity biases can be attenuated under specific cognitive conditions.

However, identity extends beyond political affiliation. Lim and Bentley (2022) argue that online behaviours driven by the need for validation reinforce tribal affiliations, even in the absence of explicit political discourse. This social performance amplifies polarisation by encouraging users to signal loyalty to in-groups while dismissing out-group information. Miller (2018) goes further, suggesting that

ideological communities often promote collective anti-thinking, rejecting facts that threaten shared narratives. In such echo chambers, misinformation is not merely tolerated; it is celebrated.

Taken together, psychological, emotional, and political motivations do not operate in silos; instead, they form a dynamic feedback loop that reinforces belief in and the sharing of fake news. Cognitive biases such as confirmation bias (Sharma et al., 2023), the illusory truth effect (Wu, 2022; Unkelbach et al., 2019), and the third-person effect (Atay & Acerbi, 2023) are more likely to be activated when misinformation aligns with emotionally charged content or an individual's political stance (Schwalbe et al., 2024). Emotional triggers, such as fear, empathy, or anger, can override rational deliberation (Wolff & Taddicken, 2022), particularly when misinformation offers identity-affirming narratives that reduce discomfort (Miller, 2018). This convergence is further intensified in digital echo chambers where users seek social validation (Lim & Bentley, 2022) and engage in performative behaviours that reinforce in-group norms while dismissing alternative viewpoints. The interplay between intuitive cognitive processing (Bago et al., 2020), affective states and political identity creates a resilient ecosystem in which misinformation thrives. Recognising these overlaps is essential for designing holistic and practical strategies to counter fake news.

These insights reveal that political ideologies and identity-driven motivations operate both overtly and subtly, shaping not only what people believe but also how they feel about those beliefs. Understanding these dynamics is essential for addressing the systemic roots of misinformation. It becomes clear that belief in and the sharing of fake news are not random acts of ignorance, but structured responses influenced by deeply human tendencies. Cognitive shortcuts, such as the illusory truth effect, emotional states like hate or fear, and identity affirmations rooted in political ideology, all converge to shape behaviour in the digital misinformation ecosystem. Critically, these findings imply that countering fake news demands more than just fact-checking. It requires a multifaceted strategy, one that incorporates emotional engagement, cognitive reflection, and identity-aware messaging. Only by addressing the full spectrum of motivations, cognitive, affective, and ideological, can we cultivate a stronger and more informed public.

5.2 Technological Amplifiers: The Role of Algorithms, Platform Design, and Multimodal Content in Fake News Virality

The following discussion will address the research question: How do algorithms, platform architectures, and multimodal content features contribute to the virality of fake news?

In the rapidly evolving digital information landscape, social media algorithms increasingly prioritise content based on engagement metrics, often to the detriment of factual accuracy. Kozik et al. (2023) argue that although digital platforms were initially conceptualised around human expertise and information credibility, they have since transformed into arenas dominated by algorithmic optimisation and political-economic dynamics, where misinformation is frequently instrumentalised to maximise user interaction. These systems inherently favour reach over veracity, thereby enhancing the visibility of sensational and often false narratives. Further illustrating this phenomenon, Jung et al. (2023) demonstrate that topological patterns of information diffusion, captured through advanced graph-transformer models, reveal a distinct disparity in the propagation trajectories of fake versus factual content. Their findings indicate that fake news disseminates both more rapidly and extensively, as diffusion algorithms structurally prioritise such content due to its higher engagement potential.

However, algorithmic design does not function in isolation. The architectural features of social media platforms, such as retweet mechanisms, trending topic tabs, and threaded comment sections, are not neutral tools but rather instrumental affordances that facilitate virality. Shelke and Attar (2022) highlight that when deep learning models are employed to integrate user behaviour, content features, and sequence dynamics, the resulting analysis uncovers the significant role platform functionalities play in enabling the rapid proliferation of disinformation, particularly within repost-heavy or thread-centric environments. This structural amplification is further evident in multimodal communication architectures. Wang et al. (2022) demonstrate that automated cross-modal correlation, such as aligning

textual content with congruent imagery, enhances the accuracy of detecting fake news. Conversely, mismatches or deliberate inconsistencies between text and images serve as cues in fake news design, increasing the content's shareability and perceived authenticity. Hu et al. (2022) reveal, through the introduction of the CLIMB framework, that these mismatches are not coincidental but deliberate rhetorical strategies designed to exploit cognitive biases and heighten user attention and belief. Similarly, Gupta et al. (2023) examine hybrid learning models that combine convolutional neural networks (CNNs) for image processing with long short-term memory (LSTM) models for textual analysis. Their study suggests that visually engaging yet deceptive content has an enhanced persuasive capacity, eliciting deeper emotional engagement than text alone.

While these studies collectively outline a sophisticated ecosystem that amplifies misinformation through algorithmic curation, platform features, and multimodal content design, they also offer pathways for mitigation. Models such as TSNN (Jung et al., 2023), classifier ensembles (Kozik et al., 2023), and causal inference frameworks (Hu et al., 2022) provide promising advances in the automatic detection of fake news. Nonetheless, algorithmic interventions alone may be insufficient. As Anderson (2020) cautions, an overemphasis on computational metrics risks overlooking the social, emotional, and political contexts that shape information consumption. Thus, a comprehensive approach must integrate human-centred design principles, promote transparency, and enhance user agency to shift digital platforms from vectors of misinformation to spaces for meaningful, truth-oriented engagement.

5.3 Tangible Consequences: The Real-World Impacts of Fake News in Public Health, Elections, and Consumer Trust

In the contemporary digital environment, the proliferation of fake news has emerged as a disruptive force across multiple sectors, notably public health, democratic processes, and consumer markets. The consequences of this phenomenon extend beyond theoretical concern, manifesting in altered public behaviours, shifts in perception, and a measurable decline in institutional trust. As the velocity of digital information dissemination increasingly outpaces mechanisms for verification, scholarly focus must pivot from questioning the relevance of fake news to understanding the depth of its penetration into the core of societal functioning.

Among the most acute consequences of fake news are those observed within the domain of public health. The COVID-19 pandemic provided a salient case in which disinformation concerning the virus, its transmission, prevention, and treatment circulated widely, undermining compliance with health directives and contributing to vaccine hesitancy and avoidable mortality. Melki et al. (2021) reveal that individuals who trusted social media, interpersonal communication, and religious leaders as sources of COVID-19 information were significantly more susceptible to believing myths and falsehoods. Conversely, those with higher education levels and trust in governmental sources exhibited greater resistance to misinformation. Importantly, media literacy training was found to enhance critical evaluation practices on social media, serving as a potential mitigative intervention amid the broader "infodemic."

This pattern is not isolated to the COVID-19 crisis. Carrieri et al. (2019) conducted a quasi-experimental study, identifying a significant decline in vaccination rates across Italian regions following a viral court ruling that erroneously linked the MMR vaccine to autism. The ruling's diffusion through nontraditional media channels amplified its reach and influenced parental decision-making, affirming a causal relationship between misinformation and public health behaviour.

The implications of these findings align with the theoretical framework proposed by Cerovac and Drmić (2023), who utilise Martha Nussbaum's capability theory to argue that misinformation undermines individuals' well-being by impairing their ability to access reliable health information, a fundamental component of human agency and flourishing. Further empirical support is provided by Igbino et al. (2020), who found that high levels of information literacy competency among Library and Information Science undergraduates in Nigeria significantly curtailed the spread of COVID-19 fake news, reinforcing the protective function of education within the digital information ecosystem.

Fake news exerts a corrosive influence on democratic processes by masquerading as legitimate political discourse, distorting electoral outcomes and undermining trust in democratic institutions. Lida et al. (2022) provide rare experimental evidence from Mexico's 2018 presidential election, demonstrating that post-election regret was significantly higher among voters exposed to fake news about a candidate. Notably, among voters with low internal political efficacy, exposure to false claims resulted in a willingness to change their vote *ex post*. This reveals that susceptibility to electoral misinformation is not evenly distributed but is mediated by political knowledge and civic confidence.

Although some studies, such as that by Leyva and Beckett (2020), suggest that digital fake news (DFN) may not substantially alter vote choice in the United States, it has been shown to reinforce existing ideological predispositions, particularly among individuals with a high receptivity to partisan content, including those on the far right. This indicates that while the absolute impact of DFN on electoral conversion may be limited, its role in deepening political polarisation and entrenching partisan identities is significant.

Surahman and Novrian (2024) contribute a broader conceptual framework by situating fake news within the "post-truth" paradigm, linking it to a deterioration of civic reasoning, digital ethics, and cybersecurity. Their analysis suggests that fake news is not only a media phenomenon but also an ethical and epistemological crisis, posing a threat to the very foundations of informed democratic participation.

The marketplace has also experienced profound disruptions due to the circulation of fabricated content. Arcuri et al. (2023) empirically demonstrate that fake news, particularly when negative, can lead to statistically significant short-term declines in the stock prices of targeted firms. Interestingly, their findings indicate no discernible difference between the effects of false information spread through traditional media and that spread through social media, suggesting that the credibility and virality of content, rather than its platform, drive investor response.

Beyond financial markets, consumer behaviour and brand reputation are similarly vulnerable. Research drawing on the Elaboration Likelihood Model suggests that fake news has a negative influence on consumer behavioural intentions by undermining perceptions of brand trust and credibility. Brands that fail to cultivate strong experiential and emotional ties with consumers are disproportionately affected by the reputational damage induced by misinformation.

King and Auschaitrakul (2019) offer further insight into the cognitive mechanisms at play, demonstrating that structuring causal claims in a manner consistent with natural language processing can influence truth judgments. This suggests that the persuasiveness of fake news may be augmented not only by content but by its rhetorical and linguistic construction, raising concerns about how psychological fluency is exploited to legitimise falsehoods.

Taken together, these studies reveal that fake news operates through a complex interplay of cognitive, social, and technological mechanisms. It capitalises on information saturation, emotional resonance, and heuristic processing, exploiting vulnerabilities in human cognition and institutional design. The impacts are not domain-specific but cut across health, governance, and commerce, showing the need for an interdisciplinary response.

While interventions such as media literacy (Melki et al., 2021), regulatory oversight (Surahman & Novrian, 2024), and educational empowerment (Igbinovia et al., 2020) show promise, they are insufficient in isolation. Effective mitigation requires a systemic approach that integrates educational strategies, technological innovation, civic engagement, and ethical digital governance. As the boundary between fact and fabrication becomes increasingly porous, preserving epistemic integrity must become a central imperative for both scholars and practitioners.

6.0 Recommendations and Conclusion

6.1 Practical Recommendations

There is a pressing need for future studies to move beyond correlational analysis and incorporate experimental, longitudinal, and mixed-method designs to understand fake news behaviour across time and context. While machine learning and deep learning models have proven effective for detection,

future research should explore hybrid approaches that integrate behavioural psychology with computational linguistics, particularly in multilingual and multicultural environments. Experimental paradigms should be developed to assess not only belief in fake news but also user engagement behaviour and resistance mechanisms under varying emotional or cognitive loads. Additionally, causal inference methods and natural experiments, such as Difference-in-Differences designs, can be more widely applied to assess the real-world effects of misinformation interventions. Future research should also include underrepresented regions and demographic groups to ensure the global applicability of findings, especially in contexts with low digital literacy, high political polarisation, or limited media pluralism.

Policymakers must adopt a proactive and systems-oriented regulatory approach to mitigate the spread of fake news without infringing on freedom of expression. First, there should be a mandate for platform transparency in algorithmic operations, particularly regarding how content is ranked and recommended. Governments can establish independent digital oversight bodies to periodically audit these algorithms. Second, the compulsory integration of digital literacy curricula, especially media literacy and emotional resilience, into secondary and tertiary education is essential. These efforts should be community-embedded and culturally contextualised to address localised misinformation threats. Regulatory frameworks must also incentivise or mandate flagging mechanisms, provenance indicators, and real-time fact-checking integrations on digital platforms. Furthermore, cross-sector collaboration between governments, civil society, media organisations, and academia is crucial for developing unified misinformation counter-strategies rooted in shared democratic values.

Social media platforms must reconfigure their design features to prevent inadvertently incentivising virality over veracity. Modifications such as reducing frictionless sharing (e.g. retweeting without reading), limiting exposure to repeat disinformation sources, and highlighting credibility scores can help reshape user behaviour. Incorporating nudge-based interventions, such as accuracy prompts or pre-bunking strategies, can reduce the impulsive sharing of fake content. Educators, journalists, and civil society actors should focus on enhancing "epistemic vigilance" through workshops, campaigns, and gamified learning tools that build critical thinking and media navigation skills. Emphasis should be placed on understanding the emotional and symbolic triggers of fake news. Finally, philanthropic organisations and research funders should invest in interdisciplinary research clusters that unite computer scientists, sociologists, political scientists, and behavioural economists to develop cross-domain, ethically grounded solutions to the misinformation crisis. Only a whole-of-society approach can effectively dismantle the structural, cognitive, and emotional scaffolding that sustains the fake news ecosystem.

6. 2 Conclusion

The proliferation of fake news is a multidimensional crisis, driven by a confluence of psychological predispositions, emotionally charged content, political ideologies, and algorithmically engineered virality. As this review demonstrates, individuals are not passive recipients of misinformation; rather, cognitive biases and affective triggers make them active agents in the dissemination of misinformation. Simultaneously, social media platforms, through their architectures and algorithmic logic, systematically amplify falsehoods by prioritising engagement over accuracy. The societal consequences are far-reaching, impacting public health initiatives, eroding democratic participation, and destabilising consumer trust. These effects are not merely theoretical but empirically observable, revealing the urgent need for multifaceted interventions. While detection technologies have advanced, they remain insufficient on their own. Meaningful responses must integrate technological, educational, regulatory, and ethical strategies to counteract misinformation. The challenge ahead lies in recalibrating digital ecosystems to privilege truth without compromising user agency and in fostering a media-literate citizenry equipped to engage with information critically in an increasingly complex media landscape.

7.0 References

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