

Unveiling the Influence of Misinformation and Deceptive AI-Generated Content on Gen Z: A Comprehensive Study

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KEYWORDS

Misinformation, Deceptive AI-generated content, Gen Z, Digital platforms, psychological impact.

ABSTRACT

This study investigates the prevalence, dissemination, and impact of misinformation and deceptive AI-generated content among Gen Z across various online platforms and social media channels. Through a survey of 700 Gen Z respondents in Ahmedabad city, the research explores the frequency of encountering AI-generated content initially perceived as true but later identified as false, as well as the level of concern regarding its potential consequences. The study examines Gen Z’s perspectives on the responsibility of social media platforms in combating misinformation and empirically analyzes the extent to which AI-generated content shapes opinions and beliefs. Furthermore, it evaluates the impact of AI-driven misinformation on individual well-being and identifies effective strategies to curb its spread by analyzing existing interventions and their outcomes.

Statistical techniques, including regression and factor analysis, were employed to uncover key factors influencing perceptions and behaviors related to AI-generated content. Findings reveal significant insights into Gen Z's vulnerability to misinformation, their expectations from social media platforms, and the psychological impact of deceptive content. The study concludes with actionable recommendations to strengthen online information integrity, improve awareness, and foster collaboration between stakeholders to mitigate the adverse effects of misinformation in the digital age.

1. INTRODUCTION

In today’s digital age, misinformation and AI-generated deceptive content are reshaping how individuals perceive reality. The rise of artificial intelligence (AI) in content creation—through deepfakes, AI-generated news, and synthetic media—has increased severe concerns over the authenticity of online information. Generation Z (Gen Z), born between 1997 and 2012, heavily depend on social media, online news platforms, and AI-driven recommendations, making them extremely vulnerable to manipulated content and algorithm-driven misinformation. The rise in the occurrence of misinformation and AI-generated deception demands a complete examination of its impact on Gen Z.

Misinformation and disinformation are rapidly reshaping the information landscape. AI-driven tools like ChatGPT, deepfake technology, and synthetic voice replication have made it easier to generate false but highly convincing content that spreads rapidly across TikTok, Instagram, YouTube, and Twitter/X among others. While misinformation refers to unintended false



information, disinformation is deliberately created to deceive. AI-driven personalized algorithms and social media virality have intensified the challenge of distinguishing credible sources from manipulative content. Confirmation bias further exacerbates this, as users tend to trust and share content that aligns with their beliefs.

Gen Z's digital nativity makes them both proficient and susceptible to AI-generated misinformation. Unlike older generations who primarily relied on newspapers and television, Gen Z consumes information through short-form, visually driven content. Several factors heighten their vulnerability such as Algorithmic Filter Bubbles, Influencer-Driven Trust, Cognitive Overload among others.

AI-generated content can be beneficial when used ethically, but its misuse poses serious risks

The rapid rise of AI-generated misinformation presents new challenges for digital literacy and trust in information. As AI continues to shape online discourse, stakeholders—including academia, technology leaders, and policymakers—must take responsibility for equipping Gen Z with critical thinking skills and ethical AI awareness. By fostering digital resilience and misinformation awareness, we can build a more informed and empowered generation

2. LITERATURE REVIEW

Gen-AI is making it much easier for Gen Z to create content for social media. AI tools can now help with writing, pictures, and videos, giving creators new ideas and speeding up the whole process. Although it opens up wide range of opportunities for the content creators and widens up the landscape for User Generated Content (UGC), but such explosive usage leads to a caution and concern towards the contents impact on social ecosystem⁽¹⁷⁾. The rapid spread of misinformation and controversial material through user-generated videos poses a critical challenge to video platforms such as YouTube and TikTok. These platforms struggle with false information, profit-driven inappropriate content, and user harassment. To address the spread of misinformation, inappropriate content, and harassment on video-sharing platforms, it is inevitable to investigate new approaches. This includes improving technology design, developing better platform policies, and enhancing services to build credibility, trust, and safety for users⁽³⁹⁾. While fake news is a global concern on social media, research has not yet provided sufficient insight into the reasons Gen Z chooses to share it, and the behavioural intention and manifestation remain dark beyond understanding. To elaborate on the cause of such intention an association of behavioural intention with the widely used honeycomb framework is often attempted; the framework highlights possible reasons for sharing such information on social media platforms⁽⁴⁰⁾. The internet's proliferation of fake news deeply worries everyone—governments, policymakers, organizations, businesses, and individuals alike—because it deliberately sows distrust and makes the most of societal tensions through political, regional, and religious manipulation⁽⁴⁴⁾. Prior to the 2016 U.S. election, the term "fake news" surged in usage, referring to a wide range of misleading and fabricated news stories created to influence the election outcome, mislead voters, and often pursue financial gain. Although social media served as a secondary source of news for most Americans—with only 14% relying on it as their primary source—pro-Trump fake news stories were shared far more widely on Facebook than pro-Clinton ones. While the majority of Americans came across fake news, belief in such content was heavily shaped by existing political biases and the echo chambers of ideologically aligned social networks.⁽¹⁾ While Generation X tended to verify news through broadcast media, Generations Y and Z demonstrated a preference for digital verification tools, with Generation Z's constant online engagement and seamless integration of digital media proving particularly crucial in their ability to process and react to news and disinformation⁽⁴⁾. To combat the rising tide of online misinformation, schools, governments, and online platforms are implementing literacy-based strategies^(22, 28, 42). Based on the discussion and analysis, we establish our first hypothesis: ***"The exposure to false or misleading information significantly influences Gen Z."***

Experts warn that generative AI's capabilities could destabilize our information ecosystem, potentially making it impossible to discern truth from falsehood and leading to profound societal disruption. The unprecedented power of generative AI demands immediate attention to mitigate the risk of a catastrophic surge in misinformation, which could fundamentally alter our understanding of reality^(27, 36). Leading AI experts and others warn that generative AI's ability to rapidly produce convincing fake content threatens to undermine public trust, distort information, and destabilize democratic systems. Gen Z might believe things that aren't true, it might mess up and become impossible to tell what's real and what's fake in the news and online also hurting the democracy. AI will make it too easy to spread lies, and that could have serious consequences for everyone⁽¹⁴⁾ ((Groh et al., 2022)). Based on the collective studies by varied scholars the concerns can be summarized into four categories. First being the increased quantity of misinformation, By massively increasing the amount of misinformation, malicious actors/players can overwhelm the information space, effectively suppressing factual content and creating widespread confusion^(14, 3, 11, 16, 26, 31, 41, 45) Bell (2023), Fried (2023), Hsu & Thompson (2023), Marcus (2023), Ordonez et al. (2023), Tucker (2023), Zagni & Canetta (2023). Second concern for Gen Z being quality rise in misleading information, impacting to a rise in higher quality misinformation, being more believable and difficult to verify, significantly increases its persuasive power, leading to the spread of falsehoods and potentially fuelling a widespread crisis of trust in all news sources. This is rising more and more due to the technical capabilities and ease of use, generative AIs can be used to create higher-quality misinformation⁽²⁾ (Epstein & Hertzman (2023)). Not only does the generative AI has the power to increase the quality and quantity of data, it possesses the power to generate next concern of increasing personalization of misinformation, AI can create believable lies that are designed to appeal to one personally so well, suiting one taste and preferences too⁽³²⁾ Pasternack



(2023). Lastly AI-generated content and its potential for spreading misinformation concerns Gen Z with its capability to involuntary generation of plausible but false information. AI can create helpful things, like computer code, but it can also produce convincing fake information. This means Gen Z might accidentally create and share misinformation without even realizing it ⁽⁴⁵⁾ (Zagni & Canetta, 2023)). Based on the above discussion and analysis, we establish our second hypothesis: ***“AI-generated content and its capacity for spreading misinformation concerns Gen Z”***.

Getting news from social media is tricky. It's cheap and fast, so lots of Gen Z do it. But it also lets fake news spread like wildfire. Fake news is made to trick you, and it can cause big problems for everyone. So, figuring out how to spot fake news on social media is a really important problem that lots of Gen Z are working on. It's not easy, though. Regular ways of finding fake news don't work well on social media. Since this information is purposely created to fool, one can't just look at the article and tell if it's fake. You need to look at other clues, like who's sharing it and how Gen Z is reacting. There are tons of information, but it's often incomplete, disorganized, and full of errors. So, it's hard to use that information to figure out what's real and what's fake ⁽³⁷⁾ (Shu et al. (2019)). To tackle the problem of fake news in Portuguese, a new set of data was built and it looked at different ways computers could find fake news. The combination of linguistic-based features and bag-of-words-based features was recommended ⁽³³⁾ (Silva et al. (2020)). Labelling content as "AI-generated" reduces perceived accuracy and sharing, though less so than labelling it "false," regardless of the content's actual truthfulness or creator ⁽³⁵⁾ (Altay & Gilardi, 2024). Gen Z Americans are significantly more vulnerable to online scams than their counter generations (16 percent and 5 percent respectively), and account hacks compared to boomers are almost (17 percent and 8 percent respectively). Gen Z's tends to experience higher rates of fraud, account breaches, and location misuse, and face a dramatic increase in financial losses from these scams ranging to \$ 8.2 million in 2017 to \$ 210 million in 2022 ⁽³⁰⁾ (Ohlheiser, A. W. (2023) Gen Z have been found quite often being fooled by the AI images on Facebook and also by scripted propaganda on TikTok (Corrigan, J., 2024).

Social media platforms, through personalized algorithms, curate content based on user preferences, leading to the formation of 'filter bubbles' that restrict exposure to diverse viewpoints. Simultaneously, online groups and networks foster 'echo chambers,' where existing beliefs are constantly reinforced, creating a sense of validation while isolating users from opposing perspectives. These digital environments, where individuals are primarily acquainted with information aligning with their pre-existing biases, have profound psychological ramifications that extend beyond mere online experiences. The phenomenon of living within these 'online bubbles' can significantly impact mental well-being, as the constant reinforcement of singular viewpoints contributes to a distorted understanding of reality and a diminished capacity for critical thinking. This isolation can lead to increased polarization and a diminished ability to engage in constructive dialogue with those holding differing opinions, ultimately affecting societal discourse and individual psychological health ⁽²⁹⁾ (Nellie Chan [Editor], 2023). Based on the discussion and analysis, we establish our third hypothesis: ***“AI-generated content that seemed real but later was discovered to be false impacted Gen Z”***.

Consumers are susceptible to fake news due to two primary psychological tendencies: a belief that their view of reality is the only correct one (naïve realism), and a preference for information that aligns with their existing beliefs (confirmation bias) ⁽³⁸⁾ (Shu et al., 2017)

The complex relationship between trust in institutions like Government, media, or science and the spread of unverified information on social media was studied; it was proven to be a major cause of the spread of unverified information too. Aiming to understand how trust (or lack thereof) shapes information-sharing behaviours. When Gen Z trust institutions, they often overestimate their ability to spot misinformation, leading to a potentially harmful overconfidence effect. It further reduces an individual's motivation to verify the information ⁽⁴³⁾ (Zoonen et. al, 2024). Social media has contributed to a 'post-truth' environment where emotional appeal and ideology often outweigh factual accuracy, resulting in the rapid spread of misinformation ⁽²⁾ ((Altay et al., 2022)). Further Social media users, even without malicious intent, contribute to the spread of unverified information due to the platform's features and lack of effective quality control. are particularly vulnerable to misinformation spread through mobile messaging apps like WhatsApp, where it's disguised as news, presented in engaging formats, and fueled by emotional outrage, leading to impulsive sharing ⁽¹⁵⁾ (Herrero-Diz et al., 2020).

The theory of Reasoned Action was used to understand the factors that influence individuals' intentions to verify information before sharing. It further suggested that behavior is driven by attitudes and subjective norms ⁽²³⁾ (Khan & Idris, 2019). The survival of social media platforms hinges on the continuous creation and sharing of content by their users. ⁽¹³⁾ (Gehl, 2017). According to a study, its regression analysis revealed that among several background factors (age, gender, income, education level, social class, self-esteem, and perceived Internet skills), only Internet experience had a significant predictive effect on sharing unverified information on social media. Clearly specifying a fact that more experienced Internet users are the ones less prone to sharing misinformation, hence Gen Z who are just new joiners to digital media or platforms are highly prone and possess higher tendency of sharing information and reposting content on social media without verifying ⁽²³⁾ (Khan & Idris, 2019). Fear, anxiety, and uncertainty were the psychological factors that contributed sharing unverified information majorly during Covid-19, the pandemic increased health anxiety and the tendency to seek health information online and so was the misinformation being shared majorly, quoting the word cyberchondria. ⁽²⁴⁾ (Laato et al., 2020). Based on the discussion and analysis, we establish our fourth hypothesis: ***“The content was shared or reposted on social media without verifying its accuracy source concerned by Gen Z”***



Opinions of Generation Z toward artificial intelligence (AI) were collected through studies, focusing on their unique relationship with technology. Their sentiments towards AI vary, with both positive perceptions of its potential and apprehensions about privacy and ethical concerns. (35) (Anna Dewalska-Opitek et. al, 2024). It was further opined that AI can be so seamless that it becomes invisible, yet its practical benefits must always be balanced with user-friendly design and accessibility (36) (Anna Dewalska-Opitek et. al, 2024). Younger consumers are highly deliberate and conscious in their purchasing decisions, where even small details can significantly influence their product choices. In spite of this fact from the study made in Finland on Perception of Generation Z towards AI-Generated Visual Advertising revealed AI-generated images effectively capture attention, rivaling human-made visuals, and hold significant marketing potential. Finnish Gen Z displays positive receptiveness to AI visual advertising, demonstrating open-mindedness towards its use in marketing strategies. However, businesses must prioritize transparency and ethical considerations when implementing AI imagery (25). Although Generative AI possess huge potential to transform the advertising industry. The impact of generative AI-enabled visual ad creation on real-world advertising effectiveness proves to be very positive, the studies further reveals that consumers use specific visual cues to distinguish AI-generated ads, with color saturation being a key identifier, while aesthetic quality and larger faces are counter intuitively associated with human-made content (10) (Exner et al. – 2025). Based on the discussion and analysis, we establish our fifth hypothesis: “**AI-generated content influenced the opinions and beliefs of Gen Z**”.

Based on the above discussion, we have identified the following objectives of our research study.

- Objective 1: To Assess the prevalence and dissemination patterns of misinformation and deceptive AI-generated content among Gen Z across various online platforms and social media channels.
- Objective 2: To assess the level of concern among individuals about the impact of AI-generated content in spreading misinformation and to analyze how frequently they encountered AI-generated content that was initially perceived as true but later proven false.
- Objective 3: To explore perspectives on the responsibility of social media platforms in combating misinformation and deceptive AI-generated content.
- Objective 4: To empirically investigate the extent to which AI-generated content influences the opinions and beliefs of Gen Z.
- Objective 5: To investigate the impact of misinformation spread by AI on individual well-being.

1. Research Method

1.1 Research Design and Data Collection

The rapid proliferation of AI-generated content and misinformation on digital platforms has significantly altered the way Gen Z interacts with information, shaping their perceptions, attitudes, and decision-making processes. As digital natives, Gen Z relies heavily on social media and AI-driven technologies for news, learning, and communication, making them particularly susceptible to deceptive content. This study adopts a deductive approach to examine the extent to which misinformation and AI-generated deception influence their trust in digital content, cognitive biases, and overall media literacy. Deductive reasoning enables the testing of hypotheses grounded in established communication and behavioural theories, leveraging quantitative methods to assess the impact of misinformation on Gen Z's ability to discern credible information and its implications for their psychological well-being and decision-making patterns.

1.2 Instrumentation

A cross-sectional online survey was conducted using stratified sampling. The questionnaire included demographic variables such as age, gender, education, and current residential location. It explored the extent to which Gen Z shares or reposts content on social media without verifying its accuracy, the role of AI-generated content in shaping opinions and beliefs, and the impact of AI-driven misinformation on well-being. The study examined how deceptive content influences perceptions, emotions, and decision-making within digital environments. The questionnaire was designed through the research gap and literature, which was distributed to 700 active, engaging participants. We utilized the Likert scale to capture detailed responses, allowing us to gauge the strength of respondents' agreement or disagreement with specific statements.

1.3 Sampling Procedure

For data collection, educational institutes across Ahmedabad and Gandhinagar were selected. University students were chosen as the unit of analysis due to their active engagement with the technologies under investigation. Given the indeterminate size of the student population, a convenience sampling technique was employed to select respondents. Data was gathered using a structured survey administered to students through online platforms. 700 respondents participated.

2. Analysis

This study employs Partial Least Squares-Structural Equation Modelling (PLS-SEM) to examine the complex relationships between variables within its theoretical framework. As a second-generation regression technique, PLS-SEM integrates



confirmatory factor analysis (CFA) and multiple linear regression, allowing simultaneous evaluation of measurement and structural models. SmartPLS software was utilized for rigorous assessment. The choice of PLS-SEM was informed by its widespread use and proven effectiveness in existing research. Compared to traditional statistical approaches, SEM enhances analytical precision and robustness, making it well-suited for investigating the influence of misinformation and deceptive AI-generated content on Gen Z's perceptions and decision-making.

2.1 Demographic Details

The study surveyed Gen Z respondents on AI-generated content and misinformation. The majority (45.9%) were aged 19-21, followed by 37.0% aged 22-24, and 17.1% aged 25-27. This demographic distribution highlights young adults' engagement with digital platforms and their evolving perceptions influenced by AI-driven misinformation. The study included a diverse respondent pool, with 54.1% identifying as female and 45.9% as male. This gender distribution provides a balanced perspective on how digital misinformation influences perceptions, attitudes, and decision-making among young individuals. The study surveyed Gen Z respondents with varying educational backgrounds, including 41.0% pursuing undergraduate studies and 59% at the postgraduate level. This offers valuable insights into how misinformation and deceptive AI-generated content shape perceptions and decision-making across different education levels. The study examined Gen Z's exposure to misinformation and deceptive AI-generated content across various living arrangements. A majority (63.4%) resided at home, while 15.4% lived in PG accommodations, 10.0% in rented spaces, 9.7% in hostels, and 1.4% with relatives or friends, reflecting diverse residential backgrounds.

2.2 Results

Objective 1: Assessing the prevalence and dissemination patterns of misinformation and deceptive AI-generated content among Gen Z across various online platforms and social media channels.

The data reveals those younger respondents in the age group of 19-21 frequently (51) and occasionally (48) encounter suspected misinformation. The 22-24 age group also reports frequent (18) and occasional (33) exposure, while the 25-27 age group encounters it less often. This suggests a need for stronger digital literacy and fact-checking mechanisms to counter misinformation's influence.

Table 1: When consuming online content, how often do the respondents come across information that they suspect may be misinformation or fake news [number]

Age of the Respondents	Always	Frequently	Occasionally	Rarely	Sometimes	Grand Total
19-21	7	51	48	86	129	321
22-24	3	18	33	56	149	259
25-27	3	21	13	25	58	120
Grand Total	13	90	94	167	336	700

The high distrust in social media (59.7%) suggests that misinformation is prevalent on these platforms, reinforcing the need for stricter content moderation and media literacy initiatives. Strong trust in government websites (87.7%) and educational institutions (82.7%) indicates that authoritative sources still hold credibility, emphasizing their role in combating fake news. Since 40.3% of respondents still trust social media, misinformation can spread widely, necessitating awareness campaigns and fact-checking tools to help users differentiate between reliable and deceptive content.

Table 2: Sources respondents trust the most to obtain accurate and reliable information about current events and news [%]

Trust Sources	Traditional news outlets	Social Media Platforms	Family and Friends	Government Website	Official Company Website	Personal Research & Analysis	Educational Institutions	Online News Platforms
You Don't Trust	22.6	59.7	25.7	12.3	19.7	22.1	17.3	38.6
You Trust	77.4	40.3	74.3	87.7	80.3	77.9	82.7	61.4



The data reveals that 57.28% of respondents are uncertain if they have shared unverified content, while 20.71% admit to occasionally sharing without verification. Alarming, 20.42% have knowingly done so, and only 1.57% always verify content before sharing. This indicates a significant risk of misinformation spread due to low verification practices. Strengthening digital literacy, promoting fact-checking habits, and encouraging responsible sharing are essential to mitigate the impact of false or misleading information on social media platforms.

Table 3: Whether the respondents ever shared or reposted content on social media without verifying its accuracy source. [%]	
I'm not sure, I may have shared content without verifying its accuracy or source	57.28
No, I always make sure to verify the accuracy and source of content before sharing.	1.57
Sometimes, I have shared content without verifying its accuracy or source	20.71
Yes, I have shared content without verifying its accuracy or source	20.42
Total	100

Objective 2: To assess the level of concern among individuals about the impact of AI-generated content in spreading misinformation and to analyse how frequently they encountered AI-generated content that was initially perceived as true but later proven false.

The data indicates that 48% of respondents sometimes encounter suspected misinformation, while 23.85% report rare encounters. Additionally, 13.42% occasionally, 12.85% frequently, and 1.85% always come across questionable content. This suggests that misinformation is a common but variable concern. The findings highlight the need for stronger digital literacy, fact-checking habits, and platform accountability to reduce misinformation exposure and its potential influence on public opinions, decision-making, and trust in online content.

Table 4: When consuming online content, how often did the respondents find information that they suspected may be misinformation or fake news [%]	
Always	1.85
Frequently	12.85
Occasionally	13.42
Rarely	23.85
Sometimes	48.00
Total	100

The data shows that 27.71% of respondents are somewhat concerned and 26% are very concerned about AI-generated content spreading misinformation. Meanwhile, 36% remain neutral, 8% are not very concerned, and 2.28% are not concerned at all. This suggests mixed awareness and perceptions about AI's role in misinformation. It suggests the need for public education on AI-generated content, stronger regulations, and improved detection tools to ensure transparency, credibility, and responsible AI deployment in digital media.

Table 5: Respondents' concern about the impact of AI-generated content and its potential for spreading misinformation. [%]	
Neutral	36.00



Not at all concerned	2.28
Not very concerned	8.00
Somewhat concerned	27.71
Very concerned	26.00
Total	100

Objective 3: To explore perspectives on the responsibility of social media platforms in combating misinformation and deceptive AI-generated content.

Table 6

Constructs	Items	FL	α	CR	AVE
Fighting AI Misinformation: Accountability & Awareness [AIM]			0.96	0.966	0.779
	Yes, social media should use tools to check if the information is true and stop fake stuff made by AI	0.62			
	Absolutely, social media platforms should be held accountable for the spread of false information and should implement stricter policies and penalties for those who share misleading content	0.60			
	Implement stricter regulations and penalties for the creators and distributors of deceptive AI-generated content	0.76			
	Increase awareness and media literacy education for Gen Z to better differentiate between fact and fiction online	0.71			
	Encourage fact-checking and verification of sources before sharing or reposting information	0.66			
	Engage in open discussion and debates to challenge misleading content and provide alternate perspectives	0.70			
	Utilize technology and tools to flag and label potentially deceptive content for users	0.73			
Constructs	Items	FL	α	CR	AVE
Social Media's Role in Battling Misinformation [SM]			0.871	0.903	0.609
	I believe social media platforms should take steps to educate users on how to identify and report fake news and deceptive AI-generated content	0.75			
	Yes, it is the responsibility of social media platforms to monitor and remove misleading content, but they should also work with reputable sources to provide accurate and credible information	0.70			



	I think social media platforms should invest in developing advanced technology to detect and remove misinformation and deceptive AI-generated content more efficiently	0.80			
	Yes, social media platforms have a responsibility to fight this issue, and they should also provide resources for users to fact-check information before sharing it	0.72			
	I believe social media platforms should prioritize promoting trustworthy sources and limiting the reach of sources that have a history of sharing false information	0.72			
	Yes, social media platforms should be transparent in their posting to avoid the spread of false information	0.75			
Notes: <i>FL</i> = Factor loading. <i>α</i> = Cronbach's alpha. <i>CR</i> = Composite reliability. <i>AVE</i> = Average variance extracted					

The measurement model serves as a rigorous framework to substantiate the dependability of the constructs and to authenticate their validity ^(34, 6). Utilizing PLS-SEM, this study meticulously assessed key metrics such as Cronbach's alpha (α), composite reliability (CR), and average variance extracted (AVE) ⁽²⁰⁾ alongside the Fornell-Larcker criteria ⁽⁵⁾, the heterotrait-monotrait (HTMT) ratio ⁽¹⁹⁾, and the variance inflation factor (VIF) ⁽¹⁸⁾. The pursuit of internal consistency was executed through Cronbach's α and CR. These metrics serve as the linchpins of construct reliability, illuminating the degree of correlation among items within each construct. A threshold value of 0.7 has been established as the benchmark for construct reliability ⁽¹²⁾. As evidenced by the data, each variable surpassed this threshold: Cronbach's α values were 0.960 for Fighting AI Misinformation: Accountability & Awareness Social Media's Role in Battling Misinformation was 0. As delineated in Table 6, each construct boasted a Cronbach's α and CR score exceeding 0.7, exemplifying robust internal consistency. Convergent validity was another metric scrutinized, gauged by the outer loading of each construct as well as by the average variance extracted (AVE). The AVE values for artificial intelligence, social media, smart learning, academic performance, and mental well-being were 0.779, 0.609, respectively. These findings not only meet but exceed the 0.5 threshold for

AVE, thereby confirming convergent validity. Factor loadings further elucidate the proportion of variance attributable to each variable within a specific factor. Adhering to the standards of SEM, factor loadings above 0.7 are strongly encouraged ⁽²¹⁾. Table 6 corroborates that all variables met this criterion, further affirming the model's convergent validity.

Table 7: Discriminant validity assessment through Fornell-Larcker.		
Construct	AIM	SM
Fighting AI Misinformation: Accountability & Awareness [AIM]	0.883	
Social Media's Role in Battling Misinformation [SM]	0.038	0.78

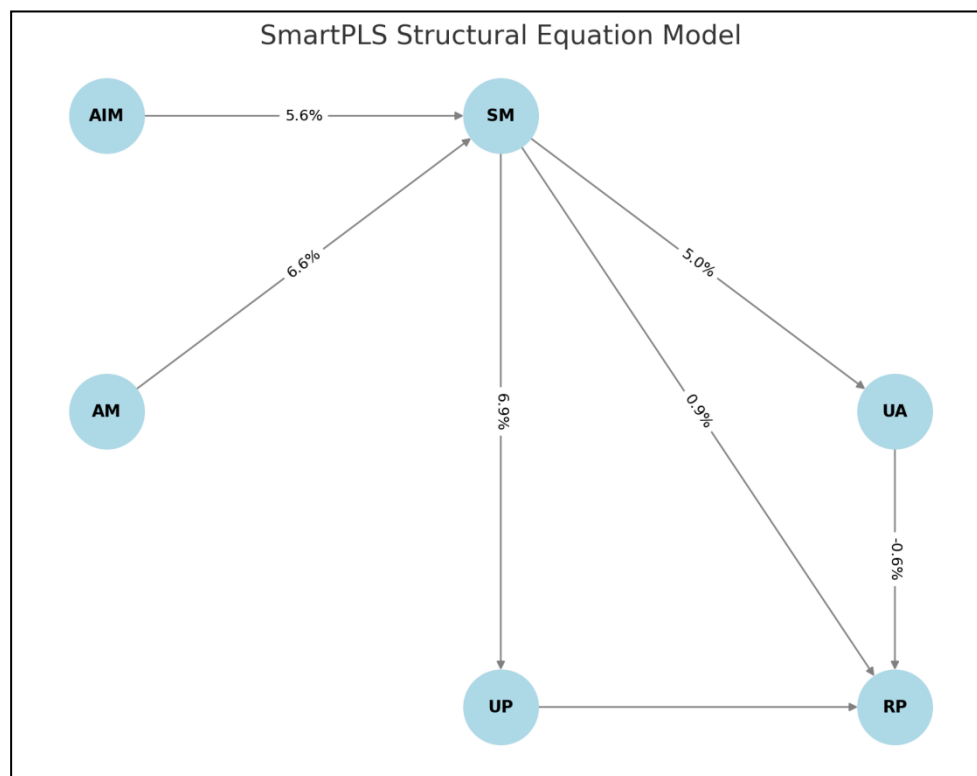
Discriminant validity was ascertained using the Fornell and Larcker criteria, which ensures that each variable is distinctly separate from all others within the same construct ⁽⁵⁾. A stringent threshold requires that the square root of the AVE must surpass the correlation values among competing variables. As Table 7 attests, the discriminant validity of each variable exceeded 0.7, thereby fulfilling the stipulated criteria ⁽¹²⁾. Additionally, this study employed the HTMT ratio to evaluate the similarity among latent constructs. With a standard HTMT range between -1 and +1, the research confirmed discriminant validity for all variables, as indicated in Table 8. These HTMT ratios were all less than 0.85, adhering to best practices for discriminant validity ⁽¹⁹⁾.



Table 8: Discriminant validity assessment through Heterotrait-Monotrait (HTMT) ratio.		
Construct	AIM	SM
Fighting AI Misinformation: Accountability & Awareness [AIM]	0.082	
Social Media's Role in Battling Misinformation [SM]	0.059	0.6

Taken collectively, the measurement model passed rigorous tests for reliability and validity, positioning it as a robust measure for evaluating the relationships among the constructs or variables under investigation. Fig. 2 graphically elucidates the detailed factor loadings and measurement model.

[Figure 1: Structural Equation Model]



Our evidence robustly supports H1, indicating that Gen Identifies potentially false or misleading information while consuming online content ($\beta = 0.094$, $t = 2.335$, $p < 0.05$). Similarly, H2 is validated, where Gen Z is concerned about the impact of AI-generated content and its potential for spreading misinformation ($\beta = 0.096$, $t = 2.299$, $p < 0.05$). In H3, we also find that Gen Z accepted that they came across AI-generated content that they initially believed was real but later discovered it to be false ($\beta = 0.458$, $t = 9.321$, $p < 0.001$). H4 was further proved when Gen Z admitted that they shared or reposted content on social media without verifying its accuracy source ($\beta = 0.459$, $t = 9.654$, $p < 0.001$). H5 was also validated when Gen Z admitted that AI-generated content influenced their opinions and beliefs ($\beta = 0.082$, $t = 2.092$, $p < 0.05$)

Table 9: Hypothesis	β	Standard Deviation	t -value	p -value	Outcome
Potential false or misleading information affects -> Gen Z	0.094	0.041	2.335	0.02	Supported
AI-generated content and its potential for spreading misinformation concerns -> Gen Z	0.096	0.042	2.299	0.022	Supported
AI-generated content that seemed real but later was discovered to be false impacted	0.458	0.046	9.321	0.001	Supported



-> Gen Z					
The content was shared or reposted on social media without verifying its accuracy source concerned -> Gen Z	0.459	0.046	9.654	0.001	Supported
AI-generated content influenced opinions and beliefs -> Gen Z	0.082	0.04	2.092	0.037	Supported

Objective 4: To empirically investigate the extent to which AI-generated content influences the opinions and beliefs of Gen Z.

Table 10: The extent to which AI-generated content influences the opinions and beliefs of Gen Z. [%]	
Absolutely not, I have complete trust in the critical thinking abilities of Gen Z	1.85
It's possible, but I believe human influence still plays a bigger role in shaping Gen Z's opinions and beliefs	9.71
Maybe, it depends on the content and how it is presented	38.57
No, I do not think AI-generated content can sway Gen Z's opinions and beliefs	12.00
Yes, AI-generated content can easily persuade the opinions and beliefs of Gen Z	37.85
Total	100

Objective 5: To investigate the impact of misinformation spread by AI on individual well-being.

Table 11: The impact of misinformation spread by AI on individual well-being [%]	
Maybe	31.9
No	10.4
Yes	57.7
Total	100.0

3. DISCUSSION

Potential false or misleading information significantly impacts Gen Z, shaping their perceptions, beliefs, and decision-making. As digital natives, they rely heavily on social media, making them vulnerable to misinformation. This can influence their views on health, politics, and finance, emphasizing the need for media literacy, fact-checking, and critical thinking skills. Gen Z, heavily reliant on social media, faces heightened vulnerability to false information. This impacts their understanding of current events, political views, and social interactions. The implications include increased polarization, decreased trust in reliable sources, and potential for manipulation, requiring stronger media literacy.

AI-generated content raises concerns among Gen Z due to its potential for spreading misinformation. As digital natives, they frequently encounter AI-created news, deep fakes, and misleading content, impacting their trust in online information. This highlights the need for stronger digital literacy, fact-checking skills, and platform accountability to prevent the spread. Gen Z, accustomed to digital content, struggles to differentiate AI-generated misinformation. This erodes trust in online sources, fuels polarization, and manipulates opinions. Deepfakes and AI-written articles pose unique challenges, demanding enhanced media literacy and critical evaluation skills among this digitally native generation.

AI-generated content that initially appeared real but was later exposed as false has significantly impacted Gen Z. Such misinformation can shape opinions, erode trust in digital platforms, and influence decision-making. This underscores the need for critical thinking, improved fact-checking mechanisms, and greater awareness of AI's role in content creation. Z experienced firsthand the deceptive power of realistic AI-generated falsehoods. This eroded their trust in online content, leading to heightened scepticism. The implications include increased difficulty in discerning truth, potential for manipulation, and a growing need for robust verification skills within this digital-native generation.



The unchecked sharing of content on social media without verifying its accuracy concerns Gen Z, as it amplifies misinformation. This can shape false beliefs, spread panic, and influence critical decisions. Strengthening digital literacy, promoting fact-checking habits, and encouraging responsible social media use are essential to combat the rapid spread of misinformation. Gen Z's reliance on social media for news led to widespread sharing of unverified AI-generated content. This fostered misinformation spread, eroding trust in online sources. Implications include increased susceptibility to manipulation, difficulty discerning truth, and a pressing need for stronger digital literacy and source verification skills.

AI-generated content has shaped Gen Z's opinions and beliefs by subtly influencing their perceptions on politics, health, and consumer behaviour. As digital natives, they often engage with AI-driven media without realizing potential biases. This highlights the need for critical thinking, media literacy, and transparency in AI-generated information to prevent misinformation. AI-generated content subtly shaped Gen Z's opinions and beliefs, often without their awareness. This manipulation raises concerns about informed decision-making, political polarization, and the erosion of trust in information. Implications include a need for critical thinking skills and awareness of AI's persuasive potential.

4. CONCLUSION

The proliferation of AI-generated content and misinformation has profoundly impacted Gen Z, shaping their perceptions, beliefs, and decision-making. As digital natives who rely heavily on social media for news and information, they are particularly vulnerable to deceptive content, deepfakes, and AI-generated falsehoods. The unchecked spread of misinformation has led to increased skepticism, difficulty in distinguishing truth from falsehood, and the erosion of trust in digital platforms. Additionally, this phenomenon has contributed to political polarization, social manipulation, and misinformed decision-making in areas such as health, finance, and public affairs. Enhancing Digital Literacy – Educational institutions should integrate digital literacy programs that teach students how to critically evaluate online content, identify biases, and verify sources before sharing information. Strengthening Fact-Checking Mechanisms – Social media platforms and news aggregators must implement more effective AI-powered fact-checking tools to detect and label potentially misleading or false content. Encouraging Responsible Social Media Use – Users must be educated about the risks of sharing unverified content. Promoting a culture of responsible sharing, where individuals verify information before reposting, can help curb the spread. Regulating AI-Generated Content – Governments and tech companies should establish policies that ensure transparency in AI-generated content, including clear disclosures and watermarks that differentiate AI-produced material from authentic content. Promoting Media Awareness Campaigns – Public awareness campaigns should emphasize the importance of media literacy, fact-checking, and skepticism toward sensationalized or AI-generated misinformation.

5. FUTURE COURSE OF ACTION

The future course of action must be multifaceted, addressing both the technological and educational aspects of AI-generated misinformation's impact on Gen Z. Firstly, **comprehensive digital literacy education** needs to be embedded within school curricula and public awareness campaigns. This education should go beyond basic internet usage, focusing on the critical evaluation of online sources, recognizing AI-generated content indicators, and understanding the algorithms that shape information feeds. Interactive workshops and simulations demonstrating the creation and spread of deepfakes can be particularly effective.

Secondly, **technological solutions** must be prioritized. Social media platforms must invest in advanced AI-powered fact-checking tools capable of detecting and flagging manipulated media. These tools should be transparent, providing users with clear explanations of why content is flagged. Blockchain technology can be explored to create verifiable content provenance, ensuring the authenticity of digital information. Watermarking and metadata embedded in AI-generated content should be mandatory, making it easily distinguishable from human-created content.

Thirdly, **regulatory frameworks** are essential. Governments should collaborate with tech companies to establish clear guidelines for AI-generated content, including mandatory disclosures and penalties for deceptive practices. International cooperation is crucial to address cross-border misinformation campaigns. Furthermore, independent oversight bodies should be established to monitor the effectiveness of these regulations and hold platforms accountable.

Finally, **fostering a culture of responsible information consumption** is paramount. Social media platforms should actively promote media literacy campaigns and encourage users to verify information before sharing. Influencer collaborations can be used to promote responsible sharing practices. Educational institutions and community organizations should host workshops and seminars on media literacy, empowering individuals to become critical information consumers. By combining education, technology, regulation, and cultural change, we can equip Gen Z and future generations to navigate the complexities of the digital information landscape.

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