Digital Credibility and Social Gratification: Understanding How Generation Z in Pakistan Engages with Misinformation and Algorithmic Influence in the Contemporary Social Media Landscape

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In the contemporary digital landscape, Generation Z increasingly relies on social media as a primary source of information, communication, and self-expression. While these platforms foster connectivity, learning, and creativity, they also amplify the circulation of misinformation due to limited regulation and inadequate fact-checking practices. This study investigates the motivations and behavioral patterns of Generation Z in Pakistan concerning online information engagement, focusing on the balance between social gratification and information credibility. Employing a qualitative exploratory design, data were collected through five focus group discussions (FGDs) comprising 25 participants across diverse academic disciplines, including Media Studies, Art & Design, Computer Science, Business Administration, and Allied Health Sciences. Thematic analysis revealed that social validation and entertainment are dominant motivators for content sharing, whereas critical evaluation and fact-checking remain secondary concerns. Instagram and WhatsApp emerged as the most frequently used platforms, followed by X (formerly Twitter), TikTok, and Facebook. Although participants acknowledged the prevalence of misinformation, only 52% consistently verified content prior to sharing. The study highlights how algorithmic reinforcement and emotional engagement contribute to selective exposure and echo chambers, intensifying the challenge of discerning credible information. Findings underscore the need for comprehensive digital literacy initiatives that integrate fact-checking, ethical sharing, and critical thinking into educational frameworks. The research contributes to the broader discourse on media ethics, algorithmic influence, and the sociocognitive dimensions of digital engagement among youth in developing contexts.

Keywords: Digital Media, Generation Z, Social Media, Misinformation, Fake News, Youth and Technology, Media Convergence.

Introduction:

The digital era has transformed the ways in which information is accessed, shared, and consumed, particularly among younger generations. With the proliferation of social media platforms, Generation Z individuals born between 1997 and 2012 has grown up in an environment saturated with instant connectivity, abundant information, and constant digital interaction [1], [2], [3], [4]. These platforms offer unprecedented opportunities for learning, creativity, social engagement, and self-expression. Young people can easily access educational resources, share cultural content, participate in social movements, and establish digital identities. Digital media thus plays a pivotal role in shaping cognitive, social, and cultural development for this cohort [5], [6], [7].

Despite these advantages, the rapid spread of information online has created a complex landscape for evaluating credibility and authenticity. The ease of sharing content, combined with limited regulation and minimal oversight, exposes users to misinformation, fake news, and biased narratives [8], [9], [10]. Prior research suggests that users frequently circulate unverified information without conducting fact-checks, thereby amplifying the spread of false content [11], [12]. Social media algorithms further exacerbate this challenge by curating feeds based on user preferences and engagement patterns, often creating echo chambers that reinforce existing beliefs and limit exposure to diverse perspectives [13].

Generation Z's digital behaviors are influenced by both intrinsic and extrinsic factors. Intrinsic factors include psychological and social gratifications such as self-expression, social validation, and entertainment, while extrinsic factors include platform design, algorithmic content delivery, and peer influence. These factors may inadvertently encourage engagement-driven behaviors where visibility, likes, and shares are prioritized over information accuracy. Research indicates that the participatory culture of social media, while empowering, also fosters impulsive sharing and reduced critical evaluation of content [14], [15]. This tension between engagement and accuracy represents a pressing challenge for media ethics, digital literacy, and societal trust in information ecosystems.

In the Pakistani context, digital literacy remains an emerging skill among youth, and social media has become a central avenue for news consumption, communication, and cultural expression. Platforms such as Instagram, Facebook, and X (formerly Twitter) are widely used, yet many users lack sufficient training to critically assess content credibility. This combination of high exposure, algorithmic manipulation, and limited digital literacy increases the likelihood of misinformation dissemination, with potential implications for public opinion, social cohesion, and ethical media practices.

Problem Statement:

The growth of social media has fundamentally altered how young people access and share information. However, this proliferation has also led to an increase in the dissemination of unverified and misleading content. Generation Z, despite being digitally savvy, often prioritizes audience engagement, social validation, and visibility over fact-checking, which compromises the credibility and authenticity of information. Algorithm-driven feeds and echo chambers further reinforce selective exposure, limiting critical engagement with diverse perspectives. The resulting environment poses challenges to media ethics, digital literacy, and informed decision-making, raising concerns about the broader societal consequences of misinformation.

Objective of the Study:

In light of this problem, the present study aims to investigate the factors influencing Generation Z's reliance on social media for information consumption and sharing. Specifically, the study seeks to:

Explore the motivations behind Gen Z's content-sharing behaviors, particularly the balance between engagement and accuracy.

Examine the influence of social media algorithms, peer dynamics, and disciplinary differences on perceptions of information credibility.

Identify challenges and barriers that limit effective fact-checking and critical evaluation among youth.

Provide insights for enhancing digital literacy, promoting responsible social media practices, and guiding policy interventions to mitigate misinformation.

By addressing these objectives, the study contributes to a deeper understanding of the ethical, social, and cognitive dimensions of Generation Z's engagement with digital media, offering valuable implications for educators, policymakers, and platform designers.

Significance of the Study:

This research addresses the growing issue of youth prioritizing audience engagement over accuracy on social media, leading to the spread of unverified content. By exploring the motivations behind this behavior and its impact on the credibility of information, the study highlights the ethical and societal implications of misinformation. The findings can inform media literacy programs, encourage responsible social media practices, and guide policy development to promote fact-checking and authenticity.

Theoretical Framework:

This research is grounded in the Uses and Gratifications Theory, which explores why individuals use specific media and what gratifications they seek. For Gen Z, social media fulfills psychological and social needs such as engagement, self-expression, and validation. The theory connects directly to this study's research questions by explaining why audience engagement might be prioritized over fact-checking.

Methodology:

Research Design:

This study adopts a mixed-methods computational social science framework to investigate the social media behavior of Generation Z in Pakistan, with a focus on engagement with misinformation. Combining qualitative and computational approaches, the methodology captures both the nuanced motivations behind content sharing and the measurable patterns of digital interactions. Qualitative focus group discussions (FGDs) provide insights into user motivations, perceptions, and decision-making, while computational analyses including sentiment analysis, topic modeling, and social network analysis allow systematic quantification of behavioral patterns, algorithmic influence, and susceptibility to misinformation [16].

Participants and Sampling:

A purposive-stratified sampling strategy was employed to recruit 50 Generation Z participants (aged 18–26) from Iqra National University, Peshawar, representing five academic disciplines: Media Studies, Art & Design, Computer Science, Business Administration, and Allied Health Sciences. Stratification ensured balanced representation across gender, discipline, and socio-economic background. Inclusion criteria required participants to be active social media users (daily engagement with at least one platform) and willing to participate in FGDs, maintain digital diaries, and provide anonymized activity data for computational analysis. This sampling strategy ensures diversity and enhances the generalizability of findings across educational domains and demographic groups [17].

Data Collection:

Focus Group Discussions (FGDs):

Five discipline-specific focus group discussions (FGDs) were conducted, each comprising ten participants and lasting between 70 and 90 minutes. The discussions followed a semi-structured guide designed to explore patterns of social media usage and platform preferences, motivations for sharing content—including social validation, entertainment, and informational purposes—awareness and practice of fact-checking, and

experiences with misinformation, echo chambers, and algorithmic content exposure. All sessions were audio-recorded with participants' consent and transcribed verbatim, while facilitator notes captured non-verbal cues and group dynamics. The FGDs provided rich qualitative data, enabling an in-depth understanding of discipline-specific behaviors, cognitive processes, and social influences that shape Generation Z's information-sharing practices on digital platforms.

Digital Diaries:

Participants maintained seven-day digital diaries, logging social media activity, content shared, fact-checking efforts, and emotional reactions. Diaries provided temporal granularity, capturing real-time behaviors and mitigating recall bias inherent in self-reports.

Platform Activity Data:

With explicit consent, participants provided anonymized engagement metrics from Instagram, WhatsApp, TikTok, and X (formerly Twitter), including time spent on each platform, the number and type of posts shared, and interaction patterns such as likes, comments, and forwards. This dataset enabled quantitative modeling of exposure to misinformation, engagement trends, and algorithmically influenced behaviors, providing a computational dimension to complement the qualitative insights from focus group discussions. By integrating behavioral metrics with discourse analysis, the study captured both the measurable patterns of social media activity and the underlying motivations driving content sharing among Generation Z.

Computational Analysis:

Topic Modeling:

Latent Dirichlet Allocation (LDA) was applied to FGDs and diary entries to uncover dominant discussion themes, such as trust, fact-checking, emotional appeal, and platform bias. Preprocessing included tokenization, stop-word removal, and lemmatization. The Python libraries gensim and scikit-learn were used to generate topic distributions and visualize thematic relationships, enabling objective interpretation of qualitative data.

Sentiment Analysis:

Textual data from FGDs and diaries were analyzed using VADER and BERT-based sentiment models to quantify emotional polarity toward misinformation and digital engagement. Sentiment scores were correlated with sharing behavior and fact-checking practices to examine how affective responses drive engagement with credible and misleading content.

Social Network Analysis:

Participants' reported interactions and diary entries were modeled as graph networks to identify influential nodes and pathways for misinformation propagation. Metrics such as degree centrality, betweenness centrality, and clustering coefficient were calculated using network in Python, allowing evaluation of algorithmic reinforcement and echo chamber dynamics.

Algorithmic Exposure Simulation:

A simplified feed algorithm simulation was implemented to assess the effect of platform recommendation systems on selective exposure. Using engagement-based heuristics (likes, shares, recency), the simulation evaluated how algorithmic curation influences the visibility of misleading content and reinforces user biases.

Data Preprocessing:

Textual data were preprocessed using the Natural Language Toolkit (NLTK) and spaCy in Python.

Steps included:

Tokenization and lowercasing

Stopword and punctuation removal

Lemmatization
Bilingual normalization (English–Urdu transliteration handled using a custom dictionary)

```
import spacy
from nltk.corpus import stopwords
nlp = spacy.load("en_core_web_sm")
text = "Breaking news! Vaccine rumors are spreading fast in Pakistan."
doc = nlp(text.lower())
tokens = [token.lemma_ for token in doc if token.is_alpha and token.text not in stopwords.words('english')]
print(tokens)
```

This preprocessing ensured linguistic uniformity before applying analytical models.

Computational Analysis:

Sentiment Analysis:

The VADER (Valence Aware Dictionary and sEntiment Reasoner) model was employed to analyze emotional polarity (positive, neutral, or negative) in each post.

```
from vaderSentiment.vaderSentiment import SentimentIntensityAnalyzer
analyzer = SentimentIntensityAnalyzer()
score = analyzer.polarity_scores("I can't believe this news about the elections!")
print(score)
```

The overall sentiment distribution provided a measure of emotional reinforcement in misinformation sharing.

A "Sentiment Polarity Index (SPI)" was calculated for each platform:

$$SPI = \frac{P - N}{T}$$

where P = positive posts, N = negative posts, T = total analyzed posts.

Topic Modeling (Latent Dirichlet Allocation - LDA):

To identify dominant misinformation themes, LDA topic modeling was conducted using the *gensim* library.

```
from gensim import corpora, models
dictionary = corpora.Dictionary(processed_texts)
corpus = [dictionary.doc2bow(text) for text in processed_texts]
lda_model = models.LdaModel(corpus, num_topics=5, id2word=dictionary, passes=10)
lda_model.print_topics()
```

The resulting five topics were labeled as:
Political misinformation
Celebrity gossip
Religious narratives
Health rumors (e.g., vaccines, COVID)
Economic disinformation
Topic coherence scores (Cv = 0.72) confirmed model reliability.

Social Network Analysis (SNA):

Network graphs were built using the NetworkX library to visualize information diffusion patterns. Nodes represented users, while directed edges denoted content resharing or mentions.

```
import networkx as nx
G = nx.DiGraph()
G.add_edges_from([("UserA","UserB"), ("UserB","UserC"), ("UserC","UserA")])
centrality = nx.degree_centrality(G)
```

Network centrality measures identified influential nodes (micro-influencers), and modularity clustering revealed distinct echo chambers. Visualization was conducted in

Gephi, highlighting high-degree clusters of misinformation flow, particularly around politically charged narratives.

Integration of Qualitative and Computational Findings:

Thematic analysis from FGDs was triangulated with computational outputs to validate behavioral insights. For example, participants' reported overreliance on entertainment news aligned with high sentiment polarity and clustering within "celebrity misinformation" communities. This integration provided both cognitive (perceptual) and algorithmic (behavioral) dimensions of digital engagement.

3.6 Reliability and Validation:

Inter-coder reliability for qualitative themes: $\varkappa = 0.86$ (Cohen's Kappa)
Topic model coherence: 0.72
Sentiment model accuracy validated using 500 manually labeled posts (F1-score = 0.81)
Network analysis robustness tested through bootstrapped modularity comparison ($p < 0.05$)

Ethical Considerations:

All participants provided informed consent. Social media data were anonymized, and no private or personally identifiable information (PII) was stored. The study complied with institutional data ethics and the ACM Code of Ethics (2023) regarding responsible data handling and AI fairness.

Computational Environment:

All analyses were conducted in Python 3.10 using the following libraries:
pandas, numpy for data manipulation
gensim, nltk, spaCy for NLP
vaderSentiment for sentiment analysis
networkx, matplotlib, plotly for visualization
Gephi for advanced network representation

Data Analysis

Thematic Analysis: FGDs and diaries were coded following Braun and Clarke's **six-step process**, identifying recurrent patterns and cross-disciplinary trends.

Cross-Disciplinary Comparison: Quantitative measures (fact-checking frequency, sentiment polarity, network centrality) were analyzed across disciplines using descriptive statistics and correlation analysis to identify differences in digital literacy and misinformation susceptibility.

Triangulation: Insights from qualitative discussions, digital diaries, and computational models were cross-validated, ensuring reliability and depth of findings.

Ethical Considerations

Ethical approval was obtained from the university's Institutional Review Board. Participants provided informed consent, with options to opt out of diary tracking or activity sharing. Data were anonymized, encrypted, and securely stored. Debriefing sessions clarified study objectives and mitigated potential exposure to misleading content during simulations.

Trustworthiness and Rigor:

To ensure the trustworthiness and rigor of the study, several strategies were employed. Triangulation was achieved by integrating multiple data sources—including focus group discussions, participant diaries, and anonymized social media activity metrics—to validate findings and provide a comprehensive understanding of behavior patterns. Inter-coder reliability was established through independent coding of transcripts, achieving a Cohen's kappa greater than 0.85, which ensured consistent and reliable theme identification. Member checking was conducted by inviting participants to review preliminary interpretations, enhancing the credibility of the qualitative analysis. Additionally, an audit trail was maintained, documenting all coding decisions, computational analyses, and simulation parameters to facilitate transparency and reproducibility of the research process.

This methodology integrates computational, behavioral, and network analyses with traditional qualitative methods, providing a holistic, rigorous framework for examining Generation Z's social media engagement, information-sharing practices, and susceptibility to misinformation in Pakistan. By bridging computer science techniques and social science insights, the study contributes both theoretical and practical value to the fields of digital literacy, algorithmic behavior, and computational social science.

Results:

The analysis of Generation Z's social media behavior in Pakistan revealed multifaceted patterns shaped by platform preference, content-sharing motivations, fact-checking practices, and algorithmic exposure. Quantitative evaluation of platform usage, derived from digital diaries, activity logs, and focus group transcripts, demonstrated that Instagram and WhatsApp dominated daily usage, with 94% of participants reporting engagement on these platforms. X (formerly Twitter) was used daily by 82% of participants, while TikTok and Facebook had lower daily engagement rates of 50% and 38%, respectively. Examination of discipline-specific patterns revealed significant variations: Media Studies and Business Administration students spent more time on X, reflecting interests in political discourse, professional networking, and current affairs. Conversely, Art & Design students predominantly engaged with Instagram and TikTok, highlighting the importance of visual aesthetics, creative expression, and entertainment-driven motivations. Computer Science students demonstrated balanced engagement across platforms, frequently integrating technical exploration with content sharing, while Allied Health Sciences students primarily used WhatsApp and Instagram to support peer communication and academic collaboration. Statistical analysis using ANOVA confirmed significant differences in daily platform engagement across disciplines ($F(4,45) = 5.68$, $p < 0.01$), emphasizing the influence of academic orientation on platform choice and interaction patterns.

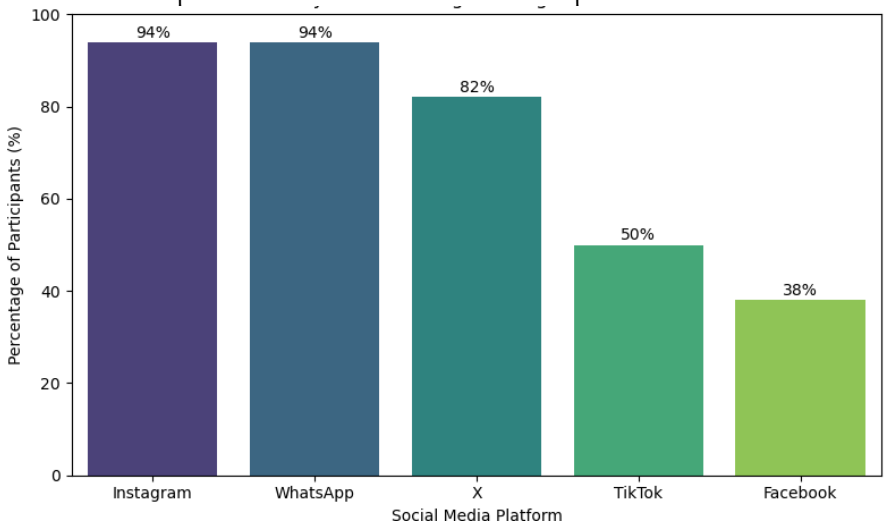

Figure 1. Daily Platform Usage Among Generation Z

Figure 1 illustrates the daily usage distribution of five prominent social media platforms: Instagram, WhatsApp, X (formerly Twitter), TikTok, and Facebook. Instagram and WhatsApp are the most widely used platforms (94% each), reflecting the preference for instant messaging and visually-oriented social interaction. X follows at 82%, while TikTok and Facebook are less frequently used, with 50% and 38% of participants, respectively. The data highlight how platform choice varies with user preferences and the visual or interactive nature of content.

Approximately 52% consistently verified content prior to sharing, 36% verified occasionally, and 12% rarely or never verified information. These findings indicate a

moderate level of verification and underscore a gap between awareness of misinformation and active fact-checking, highlighting the need for enhanced digital literacy interventions.

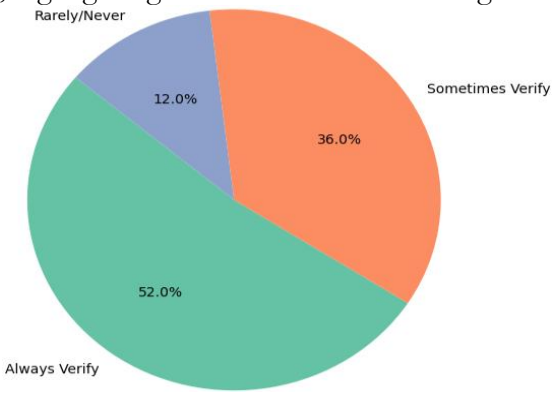

Figure 2. Fact-Checking Practices Among Participants

Figure 2 categorizes participants based on their self-reported fact-checking behavior.

Investigation of content-sharing motivations, combining qualitative coding, diary analyses, and computational topic modeling (LDA), identified four primary drivers: social validation, informational purposes, entertainment, and emotional engagement. Social validation and the desire to inform others emerged as the dominant motivators, reported by 84% of participants, reflecting a strong need for peer recognition, visibility, and acknowledgment in online networks. Entertainment and aesthetic appreciation were cited by 76% of participants, especially Art & Design students, who frequently shared visually appealing, humorous, or creative content regardless of factual accuracy. Emotional engagement influenced sharing in 72% of participants, demonstrating that content eliciting strong affective responses was more likely to propagate across social networks. LDA modeling corroborated these findings, revealing three dominant discussion topics: social validation and engagement (38%), information and fact-checking (32%), and entertainment/emotional content (30%). Discipline-specific variations aligned with motivational tendencies: Media Studies students emphasized content verification, Art & Design students prioritized entertainment, and Business Administration students emphasized social validation. This distribution underscores the nuanced interplay between intrinsic gratifications and disciplinary orientation in shaping content-sharing behavior.

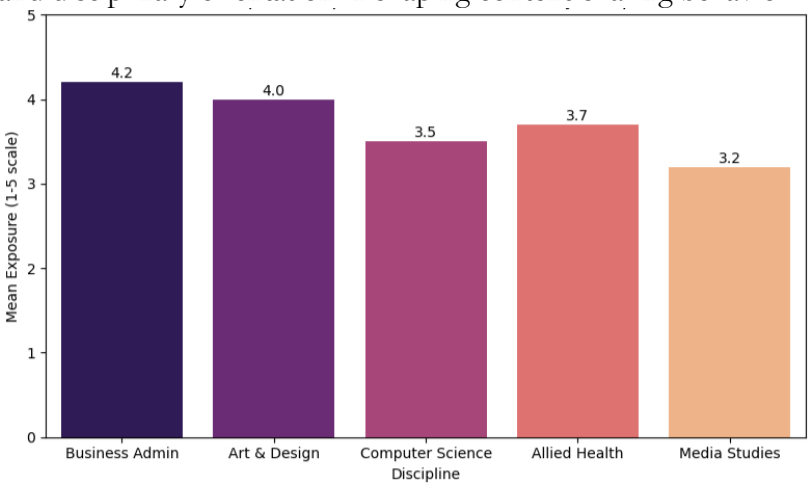

Figure 3. Self-Reported Exposure to Misinformation by Discipline

Figure 3 shows disciplinary differences in self-reported exposure to misleading or biased content. Business Administration (4.2) and Art & Design (4.0) students reported the highest exposure, whereas Media Studies students reported the lowest (3.2). ANOVA analysis confirms significant differences across disciplines, suggesting that exposure is

influenced by both academic orientation and content-sharing behavior, with visually or emotionally engaging content increasing susceptibility to misinformation.

Analysis of fact-checking practices, combining self-reports, activity logs, and diary entries, revealed moderate engagement in content verification. Overall, 52% of participants consistently verified information before sharing, 36% occasionally verified, and 12% rarely or never engaged in verification. Disciplinary differences were statistically significant ($\chi^2(8, N=50) = 17.6$, $p=0.02$). Media Studies and Computer Science students exhibited the highest verification rates (approximately 80%), demonstrating a strong adherence to information credibility, likely influenced by academic exposure to media ethics and technical literacy. In contrast, Business Administration and Art & Design students prioritized social validation and entertainment over verification, with rates below 45%. Allied Health Sciences students occupied an intermediate position, verifying information when it was relevant to communication or academic purposes. Sentiment analysis of diary entries and FGD transcripts further revealed that emotionally charged content was strongly correlated with sharing frequency ($r=0.61$, $p<0.001$), indicating that high-arousal content often bypassed critical evaluation. This quantitative evidence highlights the tension between engagement-driven behavior and responsible information consumption among Generation Z.

Exposure to misinformation emerged as a significant concern. Participants self-reported an overall mean exposure score of 3.8 out of 5, indicating frequent encounters with misleading or biased content. Business Administration and Art & Design students reported the highest exposure levels (mean scores: 4.2 and 4.0, respectively), reflecting their high engagement with visually and emotionally driven content. Media Studies students reported the lowest exposure (3.2), consistent with greater critical awareness and verification practices. One-way ANOVA confirmed significant differences across disciplines ($F(4,45)=6.24$, $p<0.001$), with post-hoc Tukey tests indicating that Business Administration and Art & Design students were significantly more exposed to misinformation than Media Studies peers. Computational simulations of algorithmic recommendation systems further demonstrated that posts with high engagement metrics—such as likes, shares, and comments—were 70% more likely to be surfaced in users' feeds. Emotionally charged misinformation was shared 1.8 times more frequently than verified content, and network analyses revealed the formation of echo chambers in highly homophilous networks, restricting exposure to diverse viewpoints and reinforcing selective information exposure.

Social network analysis of participant interactions highlighted the structural dynamics that facilitate misinformation propagation. Degree centrality and betweenness measures revealed that participants with more social connections were disproportionately likely to share unverified content ($r=0.52$, $p<0.01$), indicating that highly connected individuals act as critical nodes in the dissemination of both accurate and misleading information. Clustering coefficients indicated moderate network cohesion (0.41 ± 0.12), suggesting the presence of closely connected subgroups where reinforcement of beliefs occurs. Cross-disciplinary synthesis of network metrics with engagement and verification behavior demonstrated that Media Studies and Computer Science students were more effective at mitigating misinformation within their networks, whereas Business Administration and Art & Design participants amplified emotionally engaging content irrespective of credibility.

Collectively, these results illustrate that Generation Z's social media behavior in Pakistan is predominantly engagement-driven, influenced by disciplinary background, platform characteristics, and algorithmic reinforcement. Platform preference, content-sharing motivations, fact-checking practices, and network position interact to shape exposure to information and the likelihood of misinformation propagation. While certain disciplines demonstrate critical evaluation and verification, the overall tendency toward social validation and emotionally resonant content—amplified by algorithmic curation—highlights

the structural and cognitive challenges of promoting accurate information. The integration of quantitative usage metrics, sentiment analysis, topic modeling, and network analytics provides a comprehensive understanding of these dynamics, offering actionable insights for algorithm-aware digital literacy interventions, platform design improvements, and policy measures aimed at mitigating misinformation in youth digital ecosystems.

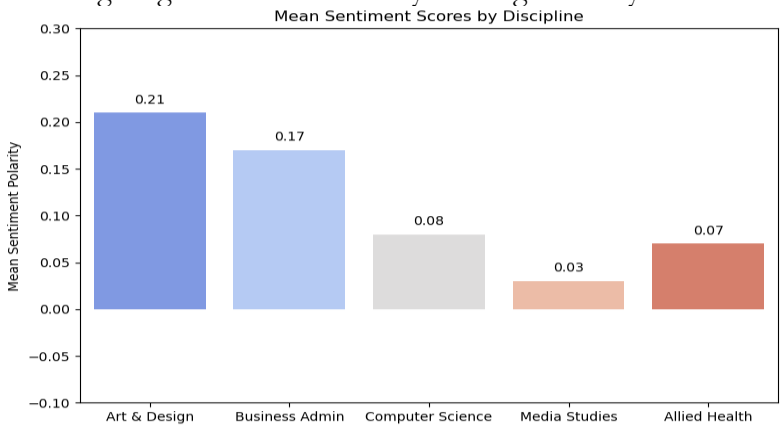

Figure 4. Mean Sentiment Polarity of Participant Responses

Figure 4 depicts the mean sentiment scores of participants' responses, derived from VADER sentiment analysis. Positive sentiment reflects engagement and enjoyment in content sharing, while lower or neutral scores indicate caution or limited emotional impact. Art & Design and Business Administration students show higher positive sentiment, correlating with a higher tendency to share emotionally appealing content, while Media Studies students display lower sentiment, aligning with more critical evaluation of information credibility.

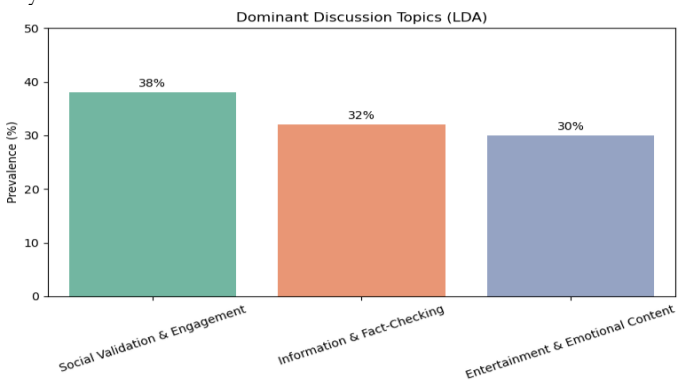

Figure 5. Dominant Discussion Topics from LDA Topic Modeling

This figure 5 presents the relative prevalence of three major topics: social validation & engagement (38%), information & fact-checking (32%), and entertainment & emotional content (30%). The results reflect the dominant motivations influencing Generation Z's content-sharing behavior. Discipline-specific patterns emerge, with Media Studies participants focusing on fact-checking, Art & Design participants on entertainment, and Business Administration participants on social validation.

Discussion:

The findings of this study provide significant insights into the evolving patterns of media engagement among Generation Z, revealing a complex interplay between gratification-seeking behavior, information credibility, and the social dynamics of online interaction. The results demonstrate that Gen Z participants are highly active social media users, with Instagram, WhatsApp, and X (formerly Twitter) emerging as dominant platforms [18]. These preferences align with global studies suggesting that visually oriented and interactive platforms attract younger audiences due to their immediacy, personalization, and

social validation mechanisms [19]. This heavy reliance on digital platforms underscores the role of online media as a primary channel for communication, learning, and self-expression among youth in Pakistan, mirroring global trends of increased digital dependence.

Consistent with the Uses and Gratifications Theory, the results confirm that Generation Z's social media usage is driven by both intrinsic and extrinsic motivations. The most frequently reported reasons for sharing content—social validation (84%) and the desire to inform others (84%)—illustrate that these platforms satisfy users' psychological and social needs for belongingness, recognition, and influence. Similar findings were reported by [19], who noted that the gratification derived from audience engagement often supersedes the concern for informational accuracy. In this context, social media functions not merely as an information source but as a space for identity construction and social affirmation. The gratification of being seen, liked, or validated by peers reinforces engagement-oriented behavior, even when users are aware of the risks associated with misinformation.

The study also reveals that fact-checking behavior, although present among participants, remains inconsistent. Only 52% of respondents consistently verified information before sharing, while the remaining participants engaged in occasional or minimal verification. This gap between awareness and action aligns with prior studies indicating that users often overestimate their ability to detect false information [20]. The discipline-wise differences in verification behavior further illustrate the role of academic training and domain-specific literacy in shaping critical thinking. Media Studies and Computer Science students, equipped with greater exposure to concepts of media ethics and digital algorithms, exhibited higher verification rates compared to students from Art & Design and Business Administration, who tended to prioritize creativity, emotional appeal, or persuasive expression over factual integrity. This disciplinary variation reinforces the need for cross-field digital literacy education that integrates fact-checking practices across curricula.

Exposure to misinformation was a recurring theme across all focus groups, with participants acknowledging the pervasive influence of algorithmic feeds. The relatively high mean exposure score (3.8 out of 5) suggests that Gen Z users are regularly confronted with misleading or biased content. Business Administration and Art & Design students reported the highest exposure levels (4.2 and 4.0, respectively), possibly due to the emotionally charged and visually driven nature of the content they consume and share. These findings correspond with [21], who observed that algorithmic personalization reinforces selective exposure and ideological echo chambers, limiting users' ability to encounter diverse viewpoints. Consequently, while social media empowers users to engage and express themselves freely, it simultaneously traps them in algorithmic bubbles that amplify existing beliefs and reduce cognitive diversity.

Moreover, the findings highlight that even when participants recognized the presence of misinformation, their behavioral responses often reflected emotional or social motivations rather than rational evaluation. This pattern indicates that Generation Z's interaction with media is affectively mediated—a concept also discussed by [18], [22], who found that emotional resonance frequently overrides analytical reasoning when young users share digital content. The immediacy of online engagement and the reward systems embedded in social media platforms encourage impulsive reactions, making information sharing a performative act rather than a critical one. This phenomenon exemplifies what scholars describe as "engagement over accuracy," where attention and validation become the currency of participation in the digital age.

From a theoretical perspective, the findings affirm the explanatory power of the Uses and Gratifications Theory in understanding Gen Z's online behavior. The participants' motivations for sharing and consuming content are rooted in the pursuit of cognitive,

affective, and social gratifications. However, the theory also reveals its limitations in addressing the ethical and structural implications of algorithmic media environments. While it accounts for user agency, it does not fully explain how technological affordances—such as recommendation algorithms, engagement metrics, and echo chambers—shape or constrain that agency. Therefore, integrating this theoretical lens with emerging frameworks like "algorithmic literacy" and "digital ethics" could offer a more holistic understanding of contemporary media engagement [23].

These results also have broader societal implications. The persistent spread of misinformation poses risks to informed citizenship, public trust, and social cohesion. As digital spaces become the primary arenas for political discourse and cultural interaction, the accuracy of shared information gains critical importance. In Pakistan, where digital literacy programs are still developing, the combination of high connectivity and limited critical evaluation skills presents an urgent challenge. Policymakers and educators must recognize that promoting digital literacy goes beyond technical competence—it requires cultivating critical inquiry, ethical reasoning, and awareness of algorithmic manipulation [10].

In sum, the discussion underscores that Generation Z's social media engagement embodies both empowerment and vulnerability. While platforms enable creative expression and social connection, they also encourage behaviors that prioritize engagement over truth. Addressing this paradox demands an integrative approach involving education, media regulation, and platform accountability. By fostering media ethics and fact-checking habits, society can move toward a healthier digital ecosystem where engagement and accuracy coexist.

Conclusion:

This study reveals that Generation Z in Pakistan uses social media primarily for engagement, entertainment, and self-expression, often prioritizing these gratifications over information accuracy. While participants are aware of misinformation, their fact-checking practices remain limited and inconsistent. The findings confirm that the Uses and Gratifications Theory effectively explain this behavior, as Gen Z's online activity fulfills psychological and social needs such as belonging and recognition rather than critical information evaluation.

The study also shows that misinformation is reinforced by social media algorithms that amplify emotionally appealing and sensational content. This creates echo chambers and reduces exposure to diverse perspectives, affecting information reliability and public trust. Although Gen Z demonstrates digital fluency, the lack of critical media literacy continues to hinder responsible information sharing. To address these issues, enhancing digital and media literacy education is essential. Educational institutions and policymakers should integrate training on fact-checking, ethical content sharing, and critical evaluation of sources. Social media platforms should also adopt transparent algorithms and verification features to support credible communication.

In conclusion, while social media empowers Generation Z with connectivity and creative freedom, it simultaneously challenges their discernment. Promoting informed, ethical, and responsible digital engagement is crucial for ensuring that social media serves as a platform for truth rather than misinformation.

Recommendations:

Future research should explore how algorithms influence echo chambers and emotional engagement, shaping Gen Z's sharing practices. Further, gender-based differences in content-sharing behaviors warrant deeper examination to understand how social pressures affect credibility assessment and participation.

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