



Understanding viral content engagement: A study of demographics, behaviors, and situational responses



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ABSTRACT

The aim of this study was to examine the patterns, motivations, and contextual factors influencing engagement with viral content among Malaysian social media users. In today's algorithm-driven digital environment, viral content plays an important role in communication, yet the factors influencing audience engagement remain insufficiently understood. Using a quantitative survey-based design, data were collected from 433 respondents aged 18 years and above through an online questionnaire distributed via social media platforms. The study examined demographic characteristics, preferred platforms, content types, and users' behavioral and situational responses to viral content. The findings show that exposure to viral content is widespread, but engagement is selective and cautious. Younger respondents, especially those aged 18–25 years, engaged more on TikTok and Instagram, while older users preferred Facebook, WhatsApp, and Telegram. Women were more likely to engage with entertainment-based content, whereas respondents with higher education preferred informational content and current affairs. Most participants shared content to inform, entertain, or express opinions and usually verified information before sharing. Overall, engagement with viral content is influenced by personal motivation, demographic characteristics, and platform algorithms, highlighting the importance of digital literacy and ethical awareness for responsible online participation.

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1. Introduction

In today's hyperconnected digital environment, viral content has become a central feature of social media communication, influencing public discourse, consumer behavior, and even sociopolitical attitudes. Despite its growing prevalence, the factors that drive viral content engagement why individuals view, react to, and share online content remain only partially understood. Existing studies often examine virality from either a marketing, technological, or

psychological perspective, but rarely integrate these dimensions into a comprehensive framework (Rathje and Van Bavel, 2025). As a result, there is a limited understanding of how emotional, cognitive, and social factors interact with platform algorithms and content design to shape user engagement patterns.

Furthermore, while digital platforms such as TikTok, Instagram, YouTube, and Facebook rely heavily on algorithmic systems that prioritize engagement-driven content, the ethical and behavioral implications of these mechanisms are insufficiently explored. According to Xie (2023), users' sharing behaviors are often influenced not only by personal motivations such as entertainment, self-expression, or social belonging but also by the platform's amplification structures that reward emotional and sensational content. This has blurred the line between authentic participation and

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algorithmically conditioned reactions. The rapid spread of misinformation and emotionally charged material further highlights the societal risks associated with unchecked virality (Metzler and Garcia, 2024).

Therefore, the core problem addressed by this study is the lack of an integrated understanding of viral content engagement that accounts for both human psychology and platform dynamics. Without this understanding, attempts to promote responsible digital engagement and ethical content strategies remain incomplete. This study seeks to fill that gap by examining how demographic factors, user motivations, and situational contexts influence engagement behaviors toward viral content, offering a holistic framework to interpret and manage virality in the digital age. This study examines the patterns, motivations, and contextual factors influencing viral content engagement among Malaysian social media users.

2. Research background

2.1. Theoretical and psychological foundations of viral engagement

Viral content engagement is grounded in several well-established theories that explain why individuals choose to consume, react to, and share digital content. Uses and Gratifications Theory (UGT) provides a foundational framework by positioning audiences as active agents who select media to satisfy specific needs, including entertainment, information seeking, social interaction, and self-expression (Falgoust et al., 2022). In the context of virality, content spreads because it resonates emotionally or cognitively with users while enabling them to connect with others and gain social visibility.

Emotional processes play a particularly significant role in driving virality. The Social Sharing of Emotion (SSE) theory posits that individuals are motivated to share emotionally arousing experiences to regulate emotion and foster social bonding (Gross and Ford, 2024). Empirical evidence consistently shows that high-arousal emotions, such as awe, amusement, anger, or fear, significantly increase the likelihood of sharing, regardless of whether the emotional tone is positive or negative. This suggests that emotional intensity, rather than emotional valence, is a key predictor of viral spread.

From a diffusion perspective, the Diffusion of Innovations (DOI) theory conceptualises virality as a rapid adoption and transmission process in which individuals simultaneously act as both consumers and distributors of content (Mahoney and Tang, 2024). Social validation mechanisms, such as likes, shares, and comments, accelerate this diffusion by signalling approval and popularity. These mechanisms align with Social Cognitive Theory (SCT), which emphasises observational learning, whereby individuals imitate behaviours that are socially rewarded. In algorithm-driven environments, content that generates early

engagement is more likely to be amplified, reinforcing cycles of visibility and imitation (Metzler and Garcia, 2024).

Cognitive processing models further explain why viral engagement is often impulsive rather than deliberative. Dual-process theories suggest that viral content frequently triggers fast, intuitive, and emotion-driven cognitive responses, encouraging quick reactions with limited analytical evaluation. This helps explain why users may engage with or share content before verifying its accuracy. At the same time, identity-related theories highlight the performative nature of sharing. Drawing on dramaturgical perspectives, sharing viral content allows users to express values, signal group membership, and construct desired online identities (Wang, 2022). This behaviour is consistent with Social Identity Theory, which posits that individuals define themselves through group affiliations.

Motivational theories such as Self-Determination Theory (SDT) further illuminate why engagement can be intrinsically rewarding. Sharing content may fulfil psychological needs for autonomy, competence, and relatedness (Ryan and Deci, 2000). In addition, the concept of social currency suggests that individuals share content that enhances their perceived social value or reputation (Mishra and Singh, 2025). Together, these psychological mechanisms illustrate that viral engagement is not random but rooted in predictable patterns of emotion, cognition, motivation, and social influence.

2.2. Content and platform determinants of virality

While psychological motivations initiate engagement, the spread of viral content is strongly shaped by content features and platform-specific algorithms. Research consistently shows that certain content characteristics, particularly emotional appeal, narrative structure, novelty, and visual intensity, are associated with higher levels of engagement (Ahmed et al., 2024; Aljalabneh, 2024). Content that evokes strong emotions, curiosity, or moral concern is more likely to capture attention and be shared, whereas neutral or low-arousal material tends to remain unnoticed.

Storytelling elements, including authenticity, relatability, humour, and concise messaging, further enhance virality by fostering emotional connection and memorability. In digital environments dominated by short attention spans, visual and multimodal formats, such as short videos, memes, and images, are particularly effective because they reduce cognitive effort and increase emotional immediacy (Aljalabneh, 2024). This explains the dominance of video-centric platforms in contemporary viral culture.

However, content alone does not determine virality. Platform architecture and algorithmic systems play a decisive role in shaping what users see and engage with. Social media platforms prioritise content based on engagement metrics,

including views, watch time, shares, and comments (Theodorakopoulos et al., 2025). Algorithms act as gatekeepers by selectively amplifying content that generates rapid and sustained interaction. For example, personalised recommendation systems on platforms such as TikTok and YouTube can propel content to wide audiences regardless of the creator's prior visibility, provided it aligns with algorithmic preferences (Milli et al., 2025).

This process of algorithmic amplification means that virality is not purely organic but co-produced by users, creators, and technological systems. Engagement-driven algorithms tend to favour emotionally charged or polarising content because such material reliably attracts attention and interaction (Metzler and Garcia, 2024). Influencers and participatory cultures further intensify this process, as users replicate, remix, and adapt viral formats, sustaining circulation through collective participation (Eslami et al., 2024).

Cultural context also plays an important role in determining what becomes viral. Content that aligns with local values, language, humour, and social norms is more likely to resonate within specific communities (Mukhtar et al., 2024). In multicultural societies such as Malaysia, cultural sensitivity and contextual relevance are therefore critical factors in shaping engagement patterns.

2.3. Audience behavior, ethics, and societal implications

The audience behaviour represents the final and most consequential dimension of viral engagement. Contemporary scholarship emphasises that users are not passive recipients of content but active participants who interpret, evaluate, and propagate information (Jenkins, 2006). Engagement decisions are influenced by identity, values, perceived credibility, and social responsibility. Sharing content often serves as a form of identity signalling, allowing individuals to align themselves with particular beliefs, causes, or communities (Wang, 2022).

Participatory culture has transformed audiences into co-creators who contribute to the evolution of viral phenomena through comments, remixes, and challenges. These practices foster collective meaning-making and emotional connection but also expose users to manipulation through algorithmic curation and influencer-driven trends. The rise of affective publics helps explain why viral content can rapidly mobilise attention and action (Ural, 2023).

At the same time, virality raises significant ethical concerns. Engagement-driven systems can accelerate the spread of misinformation, emotional exploitation, and harmful trends. Research shows that false or misleading content often spreads faster than accurate information because it elicits stronger emotional reactions (Chadwick et al., 2025). This creates tension between platform incentives and societal well-being, as visibility is rewarded based on engagement rather than credibility.

Ethical challenges also extend to privacy, cultural sensitivity, and emotional harm. Content perceived as entertaining in one context may be distressing or offensive in another. Consequently, ethical engagement requires not only platform-level moderation but also individual responsibility. Digital literacy plays a crucial role in enabling users to evaluate content, verify information, and make informed decisions about sharing (Hassan et al., 2022; Pennycook et al., 2021).

From a societal perspective, virality has a dual character. On the one hand, it can promote awareness, solidarity, and social action, as seen in online advocacy and charitable campaigns. On the other hand, it can contribute to polarisation, moral panic, and information fatigue (Albrecht and Chun, 2024). Understanding how audiences navigate these tensions is essential for promoting responsible participation in digital spaces.

In summary, viral content engagement arises from the interaction among psychological motivations, content design, platform algorithms, and audience judgment. Users engage not only for entertainment but also to inform, express identity, and negotiate ethical boundaries. Examining these dynamics provides a necessary foundation for understanding how virality shapes contemporary communication and why fostering digital literacy and ethical awareness is increasingly important.

3. Methodology

This study employed a quantitative, survey-based design to examine patterns of viral content engagement among social media users in Malaysia. The target population consisted of individuals aged 18 years and above who were active on platforms such as TikTok, Instagram, Facebook, YouTube, and WhatsApp. Using a non-probability convenience sampling approach, data were collected online through Google Forms distributed via social media and messaging applications. This method was chosen for its efficiency in reaching a wide digital audience. A total of 433 valid responses were obtained, representing diverse demographic backgrounds in terms of age, gender, education, and occupation. Most respondents were young adults (53.3%) and digitally literate, reflecting the dominant demographic segment engaging with viral content.

The survey instrument comprised four sections: (1) demographic information; (2) general engagement patterns; (3) preferred platforms and content types; and (4) scenario-based responses assessing users' reactions to various forms of viral content, including misinformation, emotional content, political claims, and social campaigns. Closed-ended and Likert-scale items were used to ensure standardised and quantifiable responses. The measures captured users' frequency of exposure, verification behaviour, motivations for sharing, and situational responses, adapted from prior media psychology and communication research grounded

in the Uses and Gratifications Theory (UGT) and Digital Literacy Frameworks (DLF).

A pilot test involving 30 participants ensured clarity, validity, and reliability of the instrument, with expert input refining the items for contextual relevance. Descriptive statistics and cross-tabulations were employed to analyse demographic patterns and behavioural differences. Ethical protocols, including informed consent, voluntary participation, and data confidentiality, were strictly followed. The methodological design provided a reliable and ethically sound basis for understanding how demographics, motivations, and contextual factors influence viral content engagement among Malaysian social media users.

4. Results and discussion

4.1. Demographic information

Table 1 presents the demographic characteristics of the 433 respondents. More than half were aged 18–25 (53.3%), followed by 36–45 years (21.9%), while smaller proportions were in the 26–35 (11.3%) and 46 years and above (13.4%) groups. Females represented a larger share of the sample (59.8%) compared to males (40.2%). In terms of education, the majority held a bachelor's degree (48.5%), with 28.6% having postgraduate qualifications and 18.0% diplomas, suggesting that most respondents were well educated. Employment status further reflected this profile, with more than half identifying as students (53.6%), while 28.4% were employed in government service and 11.5% in the private sector. Social media activity was high among respondents, with 40.4% spending four to six hours daily and 37.9% reporting one to three hours. Nearly one in five (18.0%) indicated use of more than six hours a day, while only 3.7% spent less than an hour. These results highlight that the sample largely consists of young, educated, and digitally engaged individuals who devote a significant portion of their daily time to social media. Given this demographic composition, dominated by younger, well-educated, and digitally active individuals, the subsequent analysis examines their patterns of social media platform usage to better understand how these characteristics shape online engagement.

4.2. Descriptive analysis

The descriptive analysis outlines the general patterns of viral content engagement across the sample. This includes the frequency with which respondents encounter viral content, their practices of verifying information before sharing, and the platforms most frequently used to engage with such

content. It also covers the types of viral content that attract attention and the motivations driving respondents to share material online. Together, these findings provide a comprehensive overview of how viral content is consumed and shared in everyday digital interactions, forming the basis for subsequent comparative and scenario-based analysis.

Table 1: Summary of demographic information

Demographic information	Frequency	Percentage (%)
Age (years)	18 – 25	53.3
	26 – 35	11.3
	36 – 45	21.9
	46 and above	13.4
Gender	Female	59.8
	Male	40.2
	SPM	3.9
	Foundation	0.5
Education level	Matriculation	0.5
	Diploma	18
	Bachelor's degree	48.5
	Postgraduate	28.6
Employment status	Student	53.6
	Part-time employed	2.5
	Government employed	28.4
	Private employed	11.5
	Unemployed	0.7
	Other	3.2
Time spent on social media (hours)	Less than 1	3.7
	1 – 3	37.9
	4 – 6	40.4
	More than 6	18

SPM: Sijil Pelajaran Malaysia (Malaysian certificate of education)

Table 2 shows the frequency with which respondents encounter viral content and their practices in verifying it before sharing. The findings reveal that encountering viral content is a common experience, with the majority reporting that they come across it sometimes (37.6%) or often (37.0%). A further 18.5% indicated that they always encounter viral content, while only a small proportion stated they rarely (4.8%) or never (2.1%) come across such material. This highlights the pervasive nature of viral content in the daily online experience of respondents. Verification practices, however, demonstrate a more cautious distribution. While 37.0% reported that they always verify content and 24.7% verify often, nearly 28.2% only verify sometimes, and smaller groups verify rarely (7.4%) or never (2.8%). Compared with the frequency of encountering viral content, the results suggest that although exposure is nearly universal, a significant portion of respondents do not consistently verify the accuracy of what they encounter. Given these patterns, the following section turns to the platforms most frequently used by respondents to engage with viral content, as presented in Table 3.

Table 2: Frequency of encountering and verifying viral content

Item	Never	Rarely	Sometimes	Often	Always	Total
Encountering viral content	9 (2.1%)	21 (4.8%)	163 (37.6%)	160 (37.0%)	80 (18.5%)	433 (100.0%)
Verifying viral content	12 (2.8%)	32 (7.4%)	122 (28.2%)	107 (24.7%)	160 (37.0%)	433 (100.0%)

Table 3 presents the social media platforms most frequently used by respondents to engage with viral content. TikTok emerged as the dominant platform, with 36.1% of responses, reflecting its prominence in shaping online trends and viral culture. WhatsApp and Telegram followed closely at 23.2%, indicating that private or semi-private messaging applications also play a significant role in the circulation of viral material. Instagram accounted for 16.2% of responses, while Facebook, though once a leading platform, registered only 12.0%. Other platforms, such as YouTube (7.5%) and Twitter/X (4.7%), had lower but still notable levels of engagement, while online newspapers and Reddit contributed only 0.1% each. This distribution highlights the shift from traditional platforms toward newer, video-centric and mobile-based applications, particularly TikTok, as the primary medium through which respondents encounter and engage with viral content. To gain further insight into user behaviour, the following section examines the types of viral content that respondents engage with most frequently, as shown in **Table 4**.

Table 3: Summary of the preferred platforms

Platform	Frequency	Percentage (%)
Facebook	97	12
Instagram	131	16.2
Online newspaper	1	0.1
Reddit	1	0.1
TikTok	292	36.1
Twitter/X	38	4.7
WhatsApp/Telegram	188	23.2
YouTube	61	7.5
Total	809	100

Table 4 illustrates the types of viral content respondents most frequently engage with. News and current events were the most prominent category (35.2%), suggesting that viral content is not limited to entertainment but also serves as an essential medium for information dissemination. Memes and humour (21.3%) and influencer-related content (21.3%) followed equally, reflecting the appeal of light-hearted, relatable, and personality-driven content in maintaining user attention. Other categories included social activism (11.3%) and brand promotions or advertisements (10.9%), which, although less dominant, still represent a considerable share of user engagement. The results indicate that while entertainment and lifestyle remain central to viral content consumption, respondents also actively engage with socially and politically relevant material. To better understand the motivations driving this engagement, the following section examines the reasons respondents choose to share viral content, as summarised in **Table 5**.

Table 4: Summary of types of viral content engaged

Type of content	Frequency	Percentage (%)
News & current events	278	35.2
Memes & humor	168	21.3
Influencer-related content	168	21.3
Social activism (e.g., charity)	89	11.3
Brand promotions & ads	86	10.9
Total	789	100

Table 5 summarises the motivations behind respondents' decisions to share viral content. The most common reason was to inform others (41.4%), highlighting the role of social media as a channel for information dissemination. A significant proportion also shared content for entertainment purposes (25.2%), suggesting that humour and enjoyment are essential drivers of online engagement. Other motivations included expressing personal opinions (18.1%) and sharing content that aligns with personal beliefs (9.9%). Only a small fraction (5.4%) reported sharing simply because many others were doing so, indicating that conformity plays a minor role compared to intrinsic motivations. Overall, these findings suggest that sharing viral content is driven more by purposeful communication and self-expression than by passive imitation. Having examined the motivations for sharing, the next section will interpret these findings collectively to provide a broader understanding of respondents' behaviours and tendencies in engaging with viral content.

Table 5: Summary of motivations for sharing viral content

Motivation	Frequency	Percentage (%)
To inform others	297	41.4
To entertain	181	25.2
To express my opinion	130	18.1
Because it aligns with my beliefs	71	9.9
Because many others are sharing it	39	5.4
Total	718	100

The analyses presented in **Tables 2 to 5** provide a comprehensive overview of how respondents interact with viral content. The results indicate that encountering viral content is a near-universal experience, though consistent verification before sharing is less common. TikTok has emerged as the leading platform for engaging with viral material, followed by messaging applications such as WhatsApp and Telegram. In contrast, traditional platforms such as Facebook and online newspapers play a more limited role. In terms of content types, respondents engaged most with news and current events, alongside humour and influencer-related material, reflecting a balance between information seeking and entertainment. The motivations for sharing were primarily driven by the desire to inform and entertain others, with self-expression and belief alignment also contributing. Taken together, these findings suggest that viral content serves multiple functions, including informational, social, and expressive purposes. At the same time, platform choice and verification practices highlight generational and behavioural differences within the sample.

4.3. Comparative analysis

While the descriptive analysis in Section 4.2 highlighted general patterns of viral content engagement across the full sample, it is equally important to examine how these behaviours vary across different demographic groups. Comparative

analysis enables the identification of differences in platform preferences, content choices, and engagement practices that may be shaped by age, gender, and education. By focusing on these demographic characteristics, this section provides deeper insights into the social dynamics underlying viral content engagement. It highlights distinctions that cannot be captured by descriptive statistics alone. Table 6 highlights apparent generational differences in platform usage for engaging with viral content. Among respondents aged 18–25, TikTok overwhelmingly dominated (88.3%), confirming its central role in the online behaviour of younger users. Instagram also held a strong presence in this group (39.8%), while the youngest respondents rarely used traditional platforms such as Facebook (2.6%). In contrast, older age groups showed a more diverse pattern. Facebook use increased significantly among respondents aged 36–45 (48.4%) and 46 and above (48.3%), while WhatsApp/Telegram emerged as the most widely used platform among the oldest group (79.3%). TikTok still maintained relevance among older respondents, though at much lower rates (44.2% for ages 36–45 and 32.8% for ages 46+). These results suggest a clear generational divide, with younger respondents gravitating toward video-driven platforms such as TikTok and Instagram, whereas older groups rely more heavily on Facebook and messaging applications for viral content.

To further examine whether these observed differences are statistically significant, inferential analysis was conducted using the Chi-square test of independence, as presented in Table 7. Given that platform usage was measured as a multiple-response variable, the three most frequently used platforms

(TikTok, WhatsApp/Telegram, and Instagram) were selected for analysis and recorded into binary indicators (1 = selected, 0 = not selected) to meet the assumptions of the Chi-square test. The results indicate a statistically significant association between age group and the use of TikTok ($\chi^2(3) = 103.334$, $p < 0.001$), WhatsApp/Telegram ($\chi^2(3) = 56.369$, $p < 0.001$), and Instagram ($\chi^2(3) = 25.727$, $p < 0.001$). These findings confirm that platform preferences vary significantly across age groups and reflect systematic differences in engagement patterns rather than random variation.

Table 8 highlights notable gender differences in the use of platforms for engaging with viral content. TikTok was the most dominant platform among both genders, but its prevalence was considerably higher among females (80.3%) compared to males (48.3%). Similarly, Instagram showed greater appeal to female respondents (35.1%) than males (23.0%). These results reflect the more substantial presence of women on visually driven, entertainment-oriented platforms. In contrast, Facebook demonstrated higher usage among male respondents (32.8%) compared to females (15.4%), suggesting that men rely more on this platform for viral content. WhatsApp/Telegram also had a higher share among men (52.3%) than women (37.5%), highlighting the importance of private messaging apps for male users. Meanwhile, YouTube usage was nearly twice as high among males (19.5%) as among females (10.4%). Overall, these findings suggest gendered patterns in platform choice, with women favouring TikTok and Instagram while men tend to prefer Facebook, messaging platforms, and YouTube.

Table 6: Platform usage by age group

Platform	18 - 25 years	26 - 35 years	36 - 45 years	46 and above	Total
TikTok	204 (88.3%)	27 (55.1%)	42 (44.2%)	19 (32.8%)	292 (67.4%)
WhatsApp/Telegram	66 (28.6%)	25 (51.0%)	51 (53.7%)	46 (79.3%)	188 (43.4%)
Instagram	92 (39.8%)	14 (28.6%)	19 (20.0%)	6 (10.3%)	131 (30.3%)
Facebook	6 (2.6%)	17 (34.7%)	46 (48.4%)	28 (48.3%)	97 (22.4%)
YouTube	34 (14.7%)	6 (12.2%)	14 (14.7%)	7 (12.1%)	61 (14.1%)
Twitter/X	30 (13.0%)	3 (6.1%)	4 (4.2%)	1 (1.7%)	38 (8.8%)
Online newspaper	0 (0.0%)	0 (0.0%)	1 (1.1%)	0 (0.0%)	1 (0.2%)
Reddit	0 (0.0%)	0 (0.0%)	1 (1.1%)	0 (0.0%)	1 (0.2%)
Total	231 (53.3%)	49 (11.3%)	95 (21.9%)	58 (13.4%)	433 (100%)

Table 7: Chi-square test results for platform usage by age group

Variable	$\chi^2(df)$	p-value
Age × TikTok	$\chi^2(3) = 103.334$	< 0.001
Age × WhatsApp/Telegram	$\chi^2(3) = 56.369$	< 0.001
Age × Instagram	$\chi^2(3) = 25.727$	< 0.001

Table 8: Platform usage by gender

Platform	Female	Male	Total
TikTok	208 (80.3%)	84 (48.3%)	292 (67.4%)
WhatsApp/Telegram	97 (37.5%)	91 (52.3%)	188 (43.4%)
Instagram	91 (35.1%)	40 (23.0%)	131 (30.3%)
Facebook	40 (15.4%)	57 (32.8%)	97 (22.4%)
YouTube	27 (10.4%)	34 (19.5%)	61 (14.1%)
Twitter/X	29 (11.2%)	9 (5.2%)	38 (8.8%)
Online newspaper	1 (0.4%)	0 (0.0%)	1 (0.2%)
Reddit	0 (0.0%)	1 (0.6%)	1 (0.2%)
Total	259 (59.8%)	174 (40.2%)	433 (100%)

To further examine whether these differences are statistically significant, inferential analysis was

conducted using the Chi-square test of independence, as presented in Table 9. Given that platform usage was measured as a multiple-response variable, the three most frequently used platforms (TikTok, WhatsApp/Telegram, and Instagram) were selected and recorded into binary indicators (1 = selected, 0 = not selected) to meet the assumptions of the Chi-square test. The results reveal a statistically significant association between gender and the use of TikTok ($\chi^2(1) = 48.633$, $p < 0.001$), WhatsApp/Telegram ($\chi^2(1) = 9.339$, $p = 0.002$) and Instagram ($\chi^2(1) = 7.2777$, $p = 0.007$). These findings confirm that platform preferences differ significantly between male and female respondents and reflect systematic variations in engagement behaviour rather than random differences. Table 10 reveals notable differences in the types of viral

content engaged with across education levels. Respondents with postgraduate qualifications were most likely to engage with news and current events (77.4%), indicating a strong preference for informational content among the highly educated. This pattern was also consistent, though less pronounced, among diploma holders (57.7%) and bachelor's degree holders (59.5%). By contrast, memes and humour showed stronger appeal among those with lower or mid-level education, particularly diploma (43.6%) and bachelor's degree holders (48.6%).

Table 9: Chi-square test results for platform usage by gender

Variable	$\chi^2(df)$	p-value
Gender × TikTok	$\chi^2(1) = 48.633$	< 0.001
Gender × WhatsApp/Telegram	$\chi^2(1) = 9.339$	0.002
Gender × Instagram	$\chi^2(1) = 7.2777$	0.007

Interestingly, engagement with influencer-related content remained relatively consistent across all education groups, ranging between 37% and 44%

for most categories, suggesting this type of content appeals broadly regardless of education level. Engagement with social activism and brand promotions was more modest overall, though postgraduate respondents displayed relatively higher engagement with social activism (23.4%) compared to other groups. Taken together, these results suggest that higher education is associated with stronger engagement in informational content, while entertainment-driven content, such as memes, retains widespread appeal across most groups.

To further examine whether the observed differences in content engagement across education levels are statistically significant, inferential analysis was conducted using the Chi-square test of independence, as presented in Table 11. Given that content engagement was measured as a multiple-response variable, selected content types (news and current events, memes and humour, and influencer-related content) were recoded into binary indicators (1 = selected, 0 = not selected) to meet the assumptions of the Chi-square test.

Table 10: Type of viral content engaged by education level

Type of content	SPM	Foundation	Matriculation	Diploma	Bachelor's degree	Postgraduate	Total
News & current events	10 (58.8%)	1 (50.0%)	1 (50.0%)	45 (57.7%)	125 (59.5%)	96 (77.4%)	278 (64.2%)
Memes & humor	5 (29.4%)	2 (100.0%)	1 (50.0%)	34 (43.6%)	102 (48.6%)	24 (19.4%)	168 (38.8%)
Influencer-related content	5 (29.4%)	1 (50.0%)	1 (50.0%)	34 (43.6%)	81 (38.6%)	46 (37.1%)	168 (38.8%)
Social activism (e.g., charity)	5 (29.4%)	0 (0.0%)	0 (0.0%)	16 (20.5%)	38 (18.1%)	29 (23.4%)	89 (20.6%)
Brand promotions & advertisements	5 (29.4%)	0 (0.0%)	0 (0.0%)	17 (21.8%)	38 (18.1%)	26 (21.0%)	86 (19.9%)
Total	17 (3.9%)	2 (0.5%)	2 (0.5%)	78 (18.0%)	210 (48.5%)	124 (28.6%)	433 (100%)

The results indicate a statistically significant association between education level and engagement with news and current events ($\chi^2(5) = 13.429$, $p = 0.020$), suggesting that individuals with higher educational attainment are more likely to engage with informational content. A significant relationship was also found between education level and engagement with memes and humour ($\chi^2(5) = 32.834$, $p < 0.001$), indicating that entertainment-based content is more strongly associated with respondents from lower and mid-level educational backgrounds. However, no statistically significant association was observed between education level and engagement with influencer-related content ($\chi^2(5) = 1.752$, $p = 0.882$) suggesting that this type of content appeals broadly across educational groups. Overall, these findings confirm that education level plays a significant role in shaping preferences for informational and entertainment content, while influencer-related content demonstrates a more uniform pattern of engagement.

The comparative analyses across age, gender, and education provide a comprehensive understanding of how demographic factors shape viral content engagement. Age emerged as a key differentiator,

with younger users showing a strong preference for video-driven platforms such as TikTok and Instagram, while older users relied more on Facebook and messaging applications. Gender differences further highlight distinct engagement patterns, where female respondents were more active on visually oriented platforms, whereas male respondents showed greater use of Facebook, WhatsApp/Telegram, and YouTube.

Table 11: Chi-square test results for education level and type of viral content engagement

Variable	$\chi^2(df)$	p-value
Education level × news & current events	$\chi^2(5) = 13.429$	0.020
Education level × memes & humor	$\chi^2(5) = 32.834$	< 0.001
Education level × influencer-related content	$\chi^2(5) = 1.752$	0.882

In addition, education level significantly influenced content preferences, with higher-educated respondents favouring informational content such as news and current events, while those with lower or mid-level education were more inclined toward entertainment-based content, particularly memes. Overall, these findings demonstrate that viral content engagement is

systematically shaped by demographic characteristics, influencing both platform selection and content consumption patterns. These insights provide a clear foundation for understanding how different user groups interact with viral content and inform the subsequent analysis of scenario-based behavioural responses.

4.4. Scenario-based analysis

Beyond demographic and comparative patterns, it is valuable to understand how users respond when faced with specific real-life situations involving viral content. Scenario-based analysis captures decision-making processes that extend beyond general behaviours, offering a more contextualised view of engagement. This section examines how respondents react to situations involving misinformation, emotionally charged material, political claims, dangerous viral challenges, and online awareness campaigns. These scenarios provide practical insights into how individuals evaluate, share, or avoid viral content when confronted with different risks and motivations.

Table 12 shows how respondents react when faced with unverified viral claims. Nearly half of the respondents (49.4%) stated that they would ignore the post, while another 46.7% preferred to wait for confirmation from reliable sources before taking any action. Only a tiny proportion admitted they would share the information immediately (0.5%), while 3.5% indicated they would comment to seek clarification. These findings suggest that most respondents adopt a cautious approach toward misinformation, prioritising verification or avoidance over impulsive sharing.

Table 12: Responses to misinformation and fact-checking

Response option	Frequency	Percentage (%)
Share it immediately	2	0.5
Waiting for confirmation	202	46.7
Ignore it	214	49.4
Comment on asking for more information	15	3.5
Total	433	100

Table 13 illustrates responses to emotionally charged viral material, such as a tragic accident video. Most respondents (67.9%) reported that they would watch but refrain from sharing, indicating a preference for private engagement without amplifying distressing content. A smaller group (14.3%) admitted they would share such material, while 12.9% chose to avoid it entirely. Only 4.8% said they would report the video. These findings highlight that although emotionally impactful content captures attention, most respondents avoid contributing to its wider circulation.

Table 13: Responses to emotional impact of viral content

Response option	Frequency	Percentage (%)
Share it	62	14.3
Watch it, but don't share	294	67.9
Report it	21	4.8
Avoid it	56	12.9
Total	433	100

Table 14 presents responses to unverified viral claims about politicians. Half of the respondents (50.1%) reported they would ignore such content, while 40.4% indicated they would actively verify it using fact-checking sites. A smaller number (7.2%) stated they would comment to ask for verification, while only 2.3% admitted they would share the meme without confirmation. These results suggest that respondents generally adopt a critical stance toward politically charged viral content, with avoidance and verification being the dominant strategies.

Table 14: Responses to political and social influence

Response option	Frequency	Percentage (%)
Share it	10	2.3
Check facts by checking sites	175	40.4
Comment on asking for verification	31	7.2
Ignore it	217	50.1
Total	433	100

Table 15 shows how respondents react to dangerous viral challenges. A substantial majority (61.0%) indicated they would ignore such content, while 33.9% said they would actively warn others about the risks. Only a small minority expressed willingness to share (3.2%) or try the challenge themselves (1.8%). These findings reflect a high level of awareness among respondents about the potential dangers of viral challenges, with most choosing either avoidance or protective intervention.

Table 15: Responses to viral trends and social pressure

Response option	Frequency	Percentage (%)
Try the challenge	8	1.8
Share it	14	3.2
Warn others	147	33.9
Ignore it	264	61
Total	433	100

Table 16 highlights responses to viral charity campaigns. Most respondents (76.2%) stated they would verify the campaign before donating, while 13.4% said they would ignore it. A small number (6.0%) indicated they would share the campaign without verification, and only 4.4% reported donating immediately. These findings suggest that although respondents show interest in supporting charitable causes, they adopt a cautious approach, prioritising authenticity checks before making financial contributions.

Table 16: Responses to awareness campaigns

Response option	Frequency	Percentage (%)
Donate immediately	19	4.4
Verify it before donating	330	76.2
Share it without verifying	26	6
Ignore it	58	13.4
Total	433	100

While the scenario-based findings suggest that respondents adopt a cautious and responsible approach toward viral content, these results should be interpreted with some caution. As the scenarios involve ethical considerations such as misinformation, harmful content, and social responsibility, responses may be influenced by social

desirability bias. Respondents are likely to report behaviors that align with socially acceptable norms rather than their actual actions in real-time digital environments. Therefore, the findings may reflect perceived or intended behavior rather than fully capturing spontaneous or impulsive engagement practices. Future research could employ experimental designs or behavioral tracking methods to better capture actual user behavior in dynamic online contexts.

5. Discussion

The scenario-based findings (Tables 12 to 16) demonstrate that respondents generally adopt a cautious and discerning approach when engaging with viral content. Across different contexts, the dominant responses emphasised either ignoring questionable material or waiting for confirmation before acting, particularly in cases involving misinformation, political claims, and dangerous online challenges. When confronted with emotionally charged content, most respondents preferred to watch without amplifying it further, while in the case of charity campaigns, verification before donation was the prevailing choice. Collectively, these results suggest that although respondents are highly exposed to viral content, their engagement tends to be moderated by a preference for verification, avoidance of harmful material, and selective sharing.

The findings of this study provide important insights into how individuals engage with viral content and how demographic characteristics, platform preferences, content types, and situational contexts shape behaviour. Viral content is a routine part of the digital experience, encountered regularly by nearly all respondents. Yet, engagement is not uniform or uncritical. Instead, users display selective and cautious decision-making that varies across groups and situations. The demographic profile of respondents, which was primarily young, educated, and digitally active, strongly influenced overall patterns. The dominance of participants aged 18 to 25 aligns with global evidence that young adults and students are the heaviest social media users. This helps explain the prominence of TikTok and Instagram, which are particularly popular with younger cohorts. The higher proportion of female respondents also shaped platform preferences, with women gravitating toward visually rich and entertainment-oriented spaces. These demographic dynamics highlight that viral content engagement must be understood within the context of who the users are.

Descriptive results show that exposure to viral content is nearly universal, but verification practices remain uneven. While many respondents reported verifying often or always, a substantial group only did so occasionally. This indicates awareness of misinformation risks but inconsistent application of digital literacy skills. The mixed verification patterns observed here resonate with prior research showing

that although digital literacy enhances recognition of misinformation, it does not always reduce sharing intentions. Directing users' attention toward accuracy can, however, help curb the spread of misinformation (Pennycook et al., 2021).

Platform use further revealed generational and cultural shifts. TikTok has become the central hub for viral engagement, followed by private messaging networks such as WhatsApp and Telegram. The dominance of TikTok among younger respondents aligns with academic evidence showing that TikTok is a prevalently used short video platform among adolescents and is closely linked to psychosocial dynamics (Chao et al., 2023; Virós-Martín et al., 2024). By contrast, Facebook and online newspapers played only a marginal role. Content engagement also showed a dual function. News and current events were highly consumed, while memes and influencer-driven posts provided entertainment and social connection. Sharing motivations reflected purposeful communication, with informing and entertaining others as the primary drivers rather than conformity.

The comparative analysis revealed clear demographic divides. Younger respondents strongly preferred TikTok and Instagram, while older groups relied more on Facebook and WhatsApp or Telegram. These gendered differences in platform choice are consistent with prior research. Women are more likely to use social networking platforms for relationship maintenance and social connection, whereas men tend to prefer platforms that emphasise information exchange and entertainment (Muscanell and Guadagno, 2012). Women were more active on visually oriented platforms, whereas men leaned toward Facebook, YouTube, and private messaging. Education level also shaped content preferences. Highly educated respondents favoured news and current events, while memes and humour attracted those with lower or mid-level qualifications. These findings confirm that viral engagement is stratified along demographic lines, reflecting generational habits, gendered interests, and educational backgrounds.

The scenario-based analysis added a practical dimension by examining responses in real-world contexts. Across scenarios involving misinformation, political claims, and dangerous viral challenges, respondents generally chose cautious strategies such as ignoring or verifying before acting. With emotionally charged content such as accident videos, most respondents preferred private viewing without sharing. This reflects ethical concerns about amplifying distress. In viral charity campaigns, the overwhelming majority verified authenticity before donating, underscoring the role of trust in digital activism. These behaviours suggest that while exposure to viral content is high, users exercise agency by balancing curiosity with caution.

Overall, the results highlight the multifaceted nature of viral content engagement. While platforms such as TikTok dominate exposure, decisions about whether to share are shaped by demographic factors

and situational judgments. These findings resonate with uses and gratifications theory, which views media use as an active process to satisfy informational, social, and entertainment needs. They also align with digital literacy perspectives, as respondents demonstrated awareness of misinformation risks and a willingness to act cautiously when accuracy or safety was uncertain. Importantly, virality is not simply driven by sensationalism or peer conformity but by purposeful communication, self-expression, and meaningful connection.

While this study emphasizes the role of algorithmic systems in shaping viral content engagement, it is important to note that algorithmic influence was not directly measured in the present study. While some patterns observed in this study align with established trends, the contribution of this research lies in its integration of demographic characteristics with scenario-based behavioral responses, providing a more contextualized and holistic understanding of viral content engagement within the Malaysian digital environment. The observed platform preferences, particularly the dominance of TikTok among younger users, suggest that respondents are operating within distinct algorithm-driven environments that may influence the type of content they encounter. However, these interpretations are inferred based on usage patterns rather than empirically tested.

Future research should incorporate platform-level data or behavioral tracking approaches to directly examine the role of algorithmic recommendation systems in shaping engagement behavior.

6. Conclusions

This study provides a comprehensive understanding of how individuals engage with viral content by examining demographic influences, behavioural tendencies, and situational responses. The findings reveal that viral content has become an integral component of everyday digital interaction, with nearly all respondents reporting frequent exposure across multiple platforms. However, engagement was found to be neither uniform nor impulsive; rather, it reflected selective, cautious, and purposeful decision-making. Younger respondents, particularly those aged 18–25, dominated the landscape of viral participation, engaging actively on visually driven platforms such as TikTok and Instagram.

In contrast, older users demonstrated a preference for Facebook and private messaging applications such as WhatsApp and Telegram, indicating distinct generational patterns in digital behaviour. Gender and education also emerged as differentiating factors—women tended to favour visually expressive and entertainment-oriented content, whereas men preferred information-based platforms, and highly educated respondents gravitated toward news and current events.

The analysis further revealed that users' motivations for sharing viral content were guided by the desire to inform, entertain, and express opinions, rather than by conformity or social pressure. Scenario-based responses underscored a high level of critical awareness, as most respondents verified information before sharing and avoided amplifying harmful or misleading content. These findings collectively support the uses and gratifications perspective, which posits that media engagement is an active and goal-oriented process, while also aligning with digital literacy theory, reflecting users' capacity to navigate misinformation and emotional influence online. In conclusion, viral content engagement is shaped by a complex interaction between personal motivation, demographic identity, and algorithmic environment. The study highlights the importance of fostering digital literacy and ethical awareness to promote responsible sharing behaviour, ensuring that virality contributes positively to social communication and collective understanding in the digital age.

This study has several limitations that should be acknowledged. First, the sample was predominantly composed of young, well-educated, and digitally active respondents. Therefore, the findings are more representative of this segment of social media users, particularly those highly engaged with contemporary platforms such as TikTok and Instagram. While this group represents a key population in the current digital ecosystem, the results may not fully reflect the experiences of older, less digitally active, or male-dominated user groups, and therefore should be interpreted with caution when generalising to the broader Malaysian population.

Second, the study relied on self-reported data, which may underestimate impulsive or unconscious behaviours. Respondents may provide answers that reflect socially desirable practices rather than their actual actions in real-time digital contexts. In addition, although this study discusses the role of algorithmic systems in shaping viral content engagement, it does not directly measure algorithmic exposure or user interaction with recommendation systems. As such, conclusions regarding algorithmic influence are inferred from observed usage patterns and should be interpreted with caution.

Third, the study was conducted within a specific cultural and regional context, which may limit the applicability of the findings to other settings. Future research could address these limitations by incorporating more diverse and representative samples and employing experimental or longitudinal designs to capture behavioural dynamics over time. In addition, cross-cultural comparisons would provide valuable insights into how viral content engagement varies across different societal contexts. Such approaches would contribute to a more comprehensive understanding of the social and psychological processes underlying digital engagement.

List of abbreviations

DLF	Digital literacy frameworks
DOI	Diffusion of Innovations
SCT	Social cognitive theory
SDT	Self-determination theory
SPM	Sijil Pelajaran Malaysia
SSE	Social Sharing of Emotion
UGT	Uses and gratifications theory

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Compliance with ethical standards

Ethical considerations

Ethical approval was obtained from the UNIQAAS Research Ethics Committee (Bil. (46) dlm. UnIP (P) 2/867 Sj1 Jld. 04.). Participants were informed of their right to withdraw at any time without penalty.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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