

The Uses and Gratifications of Multimedia Integration in Malaysian Online News Consumption

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ABSTRACT

Focusing on the online news consumption scenario in Malaysia, this paper uses the "Uses and Gratifications Theory" (U&G) as a theoretical lens to deeply deconstruct the behaviour of multimedia integration in online news. Through a quantitative questionnaire survey of 328 (N=328) Malaysian audiences. This paper deeply analyses the user needs, usage pattern and gratification of multimedia elements such as video, infographics, interactive functions and social media integration in news portals. The findings found that audience needs present a clear hierarchical structure: cognitive needs is dominant, and audiences have a significant preference for multiple media forms that can effectively simplify complex information. At the uses level, Malaysian audiences are highly dependent on multimedia for information seeking, but their information sharing behaviour is significantly limited, reflecting the unique local cultural characteristics. Gratification analysis reveals a "form-function paradox", compared with pure -text presentation, video content can bring higher gratification; and social gratification strongly confirms the role of multimedia news as a tool for strengthening social interaction. In addition, technology needs and gratification present a subtle duality: on the one hand, users have a positive overall experience evaluation, and on the other hand, they are critical of the design of specific interactive functions. Correlation analysis further verifies the significant correlation between user needs, media use behaviour and gratifications dimensions, thereby strengthening the empirical validity of the multidimensional framework. By explaining the multimedia-integration news consumption and constructing a cognitive-social dual-core model, this study significantly promotes the research progress of multimedia journalism and provides practical suggestions for optimizing news portal strategies.

Keywords— Audience Studies, Malaysia, Multimedia News, Online News Consumption, Uses and Gratifications Theory

INTRODUCTION

The rapid development of digital technology has profoundly reshaped the global news consumption landscape, and Malaysia is no exception (Reuters Institute, 2024; Jerome et al., 2023). Multimedia such as video, interactive features, infographics, social media, etc., have been deeply integrated into the audience's news acquisition process (Tan et al., 2024 ; Sunway University, 2025). As a result, both Malaysian audiences and news organizations have increasingly embraced multimedia-integrated news formats to keep pace with these technological shifts. In this context, multiple key factors are driving Malaysia to embrace this wave of change.

Social media was one of the main factors that encouraged multimedia integration. Social media platforms such as Facebook play a vital role as a portal, data shows that 90% of Internet users using Facebook regularly (Digital Business Lab, 2022; Reuters Institute, 2024). With social media, Malaysians pay more attention to the convenience, timeliness and cost-effectiveness of online news, and are accustomed to sharing information through instant messaging applications such as WhatsApp, encouraging cross-platform narrative (Digital Business Lab, 2022; Jerome et al., 2023).

Moreover, with the rising Internet penetration rate and high device penetration, Malaysia online news organization are accelerating from traditional media to digital platforms (Digital Business Lab, 2022; Jerome et al., 2023). This transformation not only improves the effectiveness of content dissemination but also gives rise to emerging profit models such as online advertising and paid subscriptions (Bahiyah et al., 2023), which have become the key growth engine of the industry, especially after the epidemic. However, the tension between commercial and public values needs to be balanced. The current profit model relies on highly interactive content, but there is almost no empirical research on how such designs erode the professionalism of journalism, and multimedia news research is needed to coordinate commercial innovation and public interests (Jerome et al., 2023; Bahiyah et al., 2023). Research on the use of multimedia integrated news in Malaysia has core practical value in optimizing the transformation of media business models.

Thus, this study aims to explore specific audience needs, usage pattern and gratification on the integration of multimedia elements in Malaysian online news portals. With the lens of Uses and Gratifications Theory (U&G), this research helps news organization understand the audience needs by the survey.

LITERATURE REVIEW

The Uses and Gratification Theory (U&G) was proposed. Katz et.al (1973) reveals that the audience does not passively receive information but actively selects media content to meet specific needs. Their media use behavior has a clear purpose and ultimately obtains corresponding gratification. When we project this theoretical perspective into the field of online news, multimedia integration is significantly reshaping the user's news experience. Its value lies in its ability to simultaneously respond to the audience's multiple needs.

The integration of multimedia technology in digital products and services has significantly optimized the user experience (UX) and created a more attractive, interactive and personalized interaction mode as well. This move not only conforms to the continuous evolution of user needs but also becomes the core driving force for innovation in the media industry. Its key impacts are reflected in deep enhancement of interactivity, which reshapes user interactions that are more dynamic and context-appropriate (Zhang, 2024; Fonseca, 2015); user-centered design concepts, optimizing interfaces through empirical methods such as user research to ensure that they respond intuitively to needs, thereby improving gratification and application effectiveness (Wang & Li, 2024); seamless integration and universal access, multimedia databases and adaptive technologies improve information accessibility, benefit diverse users including people with disabilities, and promote cultural experience and global connectivity (Liu, 2024; Fonseca, 2015).

The research of Song et al. (2023) found out that multimedia which includes videos and infographics can simplify news, improve the performance of information digestion, but additionally deepen the understanding of news materials. The interactive capabilities and multimedia elements have been verified to significantly enhance the person's immersive reveal in and emotional resonance in news, thereby establishing a meaningful connection between the audiences and the news (Giambastiani, Wagner & Freitas, 2024).

However, although existing studies generally agree that multimedia components have an enabling effect on the dissemination of news information (Bahiyah et al., 2023), there are few in-depth discussions on the audience's usage behavior in this process. The introduction of the "Uses and Gratifications" (U&G) theoretical framework provides a key to understanding this complex picture. This framework can not only accurately identify the media needs, usage patterns and gratification that are most suitable for specific audience groups, but also deeply analyze the adaptation logic and action mechanism between the diversified needs of the audience and various types of multimedia news content. In other words, the U&G theory allows us to penetrate the technical appearance and point directly to the deep psychological motivations behind the audience's choice behavior.

U&G in Malaysians online news consumption

Following the uses and gratifications theory (U&G) framework, the online news consumption preferences of Malaysian audiences also reflect multiple levels of needs. In the specific context of the country, online news consumption behavior is shaped by three dimensions: cultural influence, socioeconomic status, and technological affordances (Ng & Omar, 2023; Hassan et al., 2024).

Based on the analysis of U&G theory, the scholar has identified several core needs that affect the online news consumption for Malaysian audiences (Ng & Omar, 2023; Hup & Ker, 2018), among which the key dimension that urgently needs empirical testing is the need for technology, that is, the infrastructure that supports the audience to realize multimedia integration news consumption. This technological empowerment enables the audience, especially the young group who are good at digital survival, to rely on the personal customization mechanism of the news portal to curate personalized information landscapes on needs (Hassan et al., 2023; Hup & Ker, 2018).

At the same time, Malaysian audiences show differentiated gratification orientations: during viral events or festivals, most users rely on multimedia platforms to obtain and disseminate instant information, reflecting utilitarian and social needs; while another group obtains entertainment and personal-identity through a collective viewing mode like traditional television (Hup & Ker, 2018; Ng & Omar, 2023). Such findings collectively indicate that online news consumption is driven by the synergistic effects of cognitive, affective, and social rewards that is, the "compound gratification effect" (Hup & Ker, 2018), rather than a single motivation.

In this context, this study uses U&G theory to investigate Malaysia's multimedia news practice, empirically examines the coupling of existing needs, usage behaviors, and gratifications in this specific context, and directly responds to the theoretical gap in the study of audience behavior in a multimedia news environment.

METHODOLOGY

A quantitative survey study method was used, by using snowball sampling, in which Malaysian were targeted to evaluate their multimedia consumption habits on the news portal. A total of 328 were collected using the structured questionnaire distributed through google form. Google Forms was commonly used to distribute structured questionnaires in online studies within Malaysia (Dhaanya & Veerappan, 2022; Awang et al., 2023). Snowball sampling is a chain-referral method well-suited for online surveys among networked populations (Morgan, 2011; Awang et al., 2023). Statistical analysis in SPSS version 29, where descriptive statistics, mean, standard deviation, Pearson correlation matrix, were used to check the descriptive data of audience's needs, uses, gratification in multimedia integration news consumption behavior.

The survey is mainly divided into 4 sections, Section A starting by describing the survey and providing information that this survey is fully voluntary, and respondents agree to research concerns in the first section. The description will also explain what multimedia integration is and the research objectives. Section B is the demographic profile of the respondents, including gender, age, ethnicity, and academic level, ending with what are your preferred Malaysia online news portals? While in section C, we used the 1 to 5 Likert scale to measure the needs and uses construct. For section D, we measured the gratification construct.

Lastly, for research reliability, the study used the Cronbach alpha reliability to test the reliability of the variables, Cronbach alpha threshold above 0.7 shows great internal-consistency reliability (Bujang et al., 2018). While for the validity, researchers apply the face validity which by asking 5 respondents who fill in the survey thus refined the questionnaires. Face validity is the subjective determination of whether a test or measure appears to measure what it is supposed to (Nevo, 1985). Table 1 shows the result of Cronbach alpha coefficients of the result.

Table 1: Cronbach alpha Coefficients of each Variable

Variable Name	Cronbach alpha Coefficient (α)	N of items (N)
Cognitive	0.841	3
Affective	0.807	3
Personal	0.801	3

identity		
Technology	0.706	3
Information sharing	0.752	3
Information seeking	0.804	3
Passing time	0.711	3
Content	0.900	3
Entertainment	0.715	3
Social	0.914	3
Technology	0.842	3

Source: Author's Computation (2025)

FINDINGS

Table 2: Demography Of Respondent

Demography	Frequency (N)	Percentage (%)
Gender		
Male	194	59.1
Female	134	40.9
Ages		
18-25	131	39.9
25-35	80	24.4
35-45	69	21.0
45-55	48	14.0
Ethnicity		
Malay	126	38.4
Chinese	90	27.4
Indians	51	15.5
Natives	61	18.6
Academic level		

SPM	126	38.4
STPM/Foundation	59	18.0
Diploma	25	7.6
Degree	96	29.3
Master	11	3.4
PHD	11	3.4

Source: Author's computation (2025)

Based on 328 valid samples, Table 2 showed the demographic properties of the respondent. Data showed that the gender was unbalanced as shown in the table (59.1% vs 40.9%). The age distribution showed a typical right-skewed characteristic, with the 18-35-year-old youth group accounting for a total of 64.3%, of which the 18-25-year-old group accounted for the highest proportion (39.9%), reflecting the younger tendency of the sample. In terms of ethnic composition, the proportion of Malays (38.4%), Chinese (27.4%), indigenous peoples (18.6%) and Indians (15.5%) basically reflects the composition characteristics of the main ethnic groups in Malaysia. The educational level showed a "pyramid" distribution: secondary education (SPM) accounted for the highest proportion (38.4%), followed by undergraduate education (29.3%), and postgraduate education accounted for less than 7% in total. This demographic characteristic analysis provides an important basis for the evaluation of sample representativeness in subsequent studies.

Table 3: What Is Your Preferred Malaysia Online News Portals?

Online news Portals	Frequency	Percentage (%)
Astro Awani	117	35.7%
BH online	85	25.9%
Kosmo	69	21.0%
Metro Harian	64	19.5%
News Strait Times	34	10.4%
Malay Mail	112	34.1%
Bernama	76	23.2%
Free Malaysia Today	63	19.2%
MalaysiaKini	85	25.9%
Says	94	28.7%
China Press	77	23.5%

Source: Author's computation (2025)

The table 3 showed that usage of online news platforms in Malaysia is diversified. Multiple choices data shows that Astro Awani (35.7%, n=117) and Malay Mail (34.1%, n=112) take the lead and become the two most

frequently visited news portals by respondents. Says (28.7%, n=94), BH online (25.9%, n=85) and Malaysiakini (25.9%, n=85) form the second echelon, with user access rates exceeding 25%. It is worth noting that news platforms transformed from traditional media such as Bernama (23.2%, n=76) and China Press (23.5%, n=77) still maintain considerable influence, while emerging digital media such as Free Malaysia Today (19.2%, n=63) are also favored by nearly 20% of users. This distribution pattern reflects both the effectiveness of the digital transformation of traditional media and the rapid development of new media platforms. The significant difference in the proportion of users of each platform (10.4%-35.7%) shows that there is a clear competitive stratification phenomenon in the Malaysian online news market.

Table 4: Mean and Standard Deviation of Needs

Needs	Mean (μ)	Standard Deviation (σ)
Cognitive		
I need different multimedia news content to help me understand current events more clearly.	3.73	1.185
I seek multiple multimedia features because they help me grasp complicated topics.	3.20	1.408
I turn to multimedia news when I want clearer explanations than text-only articles can provide.	3.78	1.180
Affective		
I seek different multimedia news when I need to feel emotionally connected to a story.	3.35	1.474
I am motivated to news content that can evoke emotions through visuals, images, or sounds.	3.58	1.297
I turn to multimedia news when I want an emotionally engaging experience.	3.26	1.351
Personal identity		
I need multiple multimedia news sources that reflect my values and identity.	3.70	1.133
I seek different multimedia news content that helps me express who I am.	3.40	1.447
I look for different multimedia news that supports my ability to engage in social conversations about current events.	3.72	1.125
Technology		
I am motivated to use news portals with different advanced multimedia features.	3.63	1.235
I need news platforms that offer smooth, user-friendly service with different multimedia	3.35	1.434

functions.		
I seek news content that allows me to interact with multimedia elements with videos, comment or infographics.	3.67	1.286

Source: Author's computation (2025)

The table 4 showed that needs of Malaysian citizens in this study for multimedia news. In the cognitive dimension, users attach the most importance to the explanatory function of multimedia content on complex issues ($\mu=3.78$, $\sigma=1.185$), which is significantly higher than the needs for diversity of multimedia forms ($\mu=3.20$, $\sigma=1.408$); in the technological features dimension, the social dialogue support function ($\mu=3.72$, $\sigma=1.125$) and value fit ($\mu=3.70$, $\sigma=1.133$) of news content become key needs, while the self-expression function ($\mu=3.40$) is relatively weak; the affective dimension is overall mild ($\mu=3.26-3.58$), and individual differences are significant ($\sigma>1.29$); the technical dimension highlights the tension between users' preference for interactive functions ($\mu=3.67$) and tolerant attitude towards technological features ($\mu=3.35$).

Table 5: Mean And Standard Deviation Of Uses

Uses	Mean (μ)	Standard Deviation (σ)
Information sharing		
I share multimedia news content with friends and family.	3.62	1.336
I am more likely to share news that includes videos, images, or infographics.	3.22	1.378
I share news across different platforms	3.70	1.219
Information seeking		
I search more on different multimedia news content to stay updated on current events.	3.80	1.207
Different Multimedia features help me seek news.	3.61	1.344
I search for multimedia-integrated news more than text-based news.	3.27	1.427
Passing Time		
I consume different multimedia news content when I have free time.	3.69	1.181
I watch or read multimedia news to relax or unwind.	3.33	1.448
Scrolling through multimedia news content is a way for me to pass the time	3.20	1.327

Source: Author's computation (2025)

Table 5 shows the usage pattern of Malaysian citizen in this study, in terms of information sharing, users showed a strong tendency to spread information across platforms ($\mu=3.70$) but were relatively conservative in sharing multimedia news ($\mu=3.22$). The dimension of information acquisition showed obvious multimedia dependence, especially when used to track current events ($\mu=3.80$), but pure text news still maintained a certain appeal ($\mu=3.27$). It is worth noting that although recreational use was generally active ($\mu=3.20$ - 3.69), there was a significant difference ($\Delta=0.13$) between the "relaxation" function ($\mu=3.33$) and the "killing time" use ($\mu=3.20$), and the latter had a larger standard deviation ($\sigma=1.327$), reflecting the individual differences of uses in this dimension.

Table 6: Mean and Standard Deviation of Gratification

Gratification	Mean (μ)	Standard Deviation (σ)
Content gratification		
The use of multimedia in news enhances my understanding of the topic.	3.24	1.392
I feel more satisfied with news articles that include videos or interactive elements.	3.68	1.188
I prefer multimedia news content over traditional text-based news.	3.39	1.436
Entertainment gratification		
I find multimedia news content more entertaining than text-only news.	3.67	1.215
I enjoy watching news videos instead of reading long articles.	3.64	1.208
The use of animations and interactive elements makes news more engaging for me.	3.32	1.484
Social gratification		
Multimedia-integrated news helps me engage in discussions with others.	3.63	1.235
I feel more connected when I share and discuss multimedia news	3.77	1.150
I interact more with social media posts that include multimedia news content.	3.74	1.119
Technology gratification		
I enjoy using interactive features in multimedia news content.	3.30	1.338
High-quality multimedia features increase my gratification with a news portal.	3.21	1.412
The availability of multimedia elements enhances my overall news experience.	3.72	1.120

Source: Author's computation (2025)

Table 6 shows the gratification obtained by Malaysia citizen, in the content gratification dimension, the integration of video and interactive elements significantly improved user gratification ($\mu=3.68$), but the preference for pure multimedia news was relatively low ($\mu=3.39$), and the perception of improved understanding was the most limited ($\mu=3.24$). The large standard deviation ($\sigma=1.392$) indicated that there were significant differences in individual cognition. Entertainment gratification was the most prominent, especially the acceptance of video news ($\mu=3.67$) was significantly higher than that of interactive elements ($\mu=3.32$), reflecting the advantage of audio-visual content in entertainment. It is worth noting that the social gratification dimension performed strongly overall ($\mu=3.63$ - 3.77), among which "enhancing social connection" ($\mu=3.77$) and "promoting social media interaction" ($\mu=3.74$) were particularly significant, and the small standard deviation ($\sigma\approx 1.1$) showed that users had a high degree of consensus in this dimension. Technical gratification showed a bipolar feature: although the overall experience of multimedia elements was significantly improved ($\mu=3.72$), users' gratification with interactive functions ($\mu=3.30$) and picture quality requirements ($\mu=3.21$) was relatively limited.

Table 7 : Pearson Correlation Matrix Among Constructs

Constructs	1	2	3	4	5	6	7	8	9	10	11
1. CN	—	.867**	.842**	.865**	.865**	.874**	.853**	.817**	.862**	.836**	.868**
2. AN		—	.849**	.848**	.855**	.852**	.859**	.872**	.887**	.848**	.876**
3. PI			—	.828**	.852**	.860**	.819**	.844**	.853**	.848**	.834**
4. TN				—	.834**	.851**	.828**	.823**	.843**	.834**	.849**
5. ISH					—	.907**	.839**	.856**	.867**	.842**	.841**
6. ISK						—	.849**	.834**	.864**	.851**	.857**
7. PT							—	.849**	.852**	.830**	.838**
8. CG								—	.857**	.831**	.813**
9. EG									—	.850**	.863**
10. SG										—	.839**
11. TG											—

Source: Author's computation (2025)

Notes: All values are Pearson correlations, significant at the $p < .01$ level** (2-tailed). Abbreviations: CN = Cognitive Need, AN = Affective Need, PI = Personal Identity, TN = Technology Need, ISH = Information Sharing, ISK = Information Seeking, PT = Passing Time, CG = Content Gratification, EG = Entertainment Gratification, SG = Social Gratification, TG = Technology Gratification.

Table 7 showed the results of Pearson correlation matrix analysis show that there are significant positive correlations among the 11 constructs ($r=0.813$ - 0.907 , $p<0.01$). This finding not only confirms the internal consistency of the "uses and gratifications" theoretical framework but also reveals the close theoretical connection between the dimensions. Specifically, cognitive needs and affective needs are highly correlated ($r=0.867$), indicating that in the process of multimedia- integrated news consumption, users' need the information that is rich in emotion. It is particularly noteworthy that information seeking and information sharing behaviours are almost completely correlated ($r=0.907$), which reflects that the two have significant functional overlap in user behaviour patterns. In terms of gratification dimensions, content, entertainment and

technology elements are strongly correlated with various needs, which the correlation between entertainment gratification and affective needs ($r=0.887$) and technology gratification and cognitive needs ($r=0.868$) is particularly prominent. This study empirically verifies the intricate interactive relationship between user needs, usage behaviors and gratification mechanisms in multimedia-integration news portals.

DISCUSSION

Based on the uses and gratifications theory framework, this study systematically explored the multimedia integration consumption behavior of Malaysian online news audiences. The main research findings show significant characteristics at three levels:

At the level of needs, the study revealed a clear hierarchical structure. Cognitive needs dominate ($\mu=3.78$), among which the ability to analyze complex problems using multimedia is the most valued. This finding is consistent with the research of Song et al. (2023) on the advantages of visual information processing. Personal identity needs show dual characteristics: its function as social capital ($\mu=3.77$) is significantly stronger than the need for self-expression ($\mu=3.40$). This result provides new empirical evidence for the social integration theory of news consumption proposed by Abdesselam (2017). It is worth noting that the intensity of affective needs ($\mu=3.26-3.58$) is significantly lower than expected. This discovery suggests that Nauman et al.'s (2020) multimedia emotional resonance hypothesis needs to be changed to include a cultural aspect.

In the dimension of uses behaviour, the study found a clear "information-sharing" asymmetry. Information-seeking behaviour showed strong multimedia dependence ($\mu=3.80$), which verified Ng & Omar's (2023) argument about timeliness needs; while information sharing behaviour was relatively restrained ($\mu=3.22$), a difference that may be due to Malaysia's unique cultural communication. In terms of entertainment use, this study captured the subtle differences between "active relaxation" ($\mu=3.33$) and "passive consumption" ($\mu=3.20$), expanding the dimensions of traditional media use research.

The analysis of the gratification shows three characteristics: first, there is a "form-function" paradox in content gratification, and the gratification of video elements ($\mu=3.68$) is significantly higher than the pure multimedia preference ($\mu=3.39$); second, social gratification is the most robust ($\mu=3.77$), supporting Hup Xiao Hui, & Ker Yuek Li. (2018) discussion on the social function of media; finally, technical gratification shows a differentiation of "overall recognition-partial questioning", and the overall experience improvement ($\mu=3.72$) is in sharp contrast with the specific function evaluation ($\mu=3.30$).

The Pearson correlation matrix analysis further confirmed the theoretical framework of this study, revealing that user needs, usage behavior and gratification experience are not isolated dimensions, but constitute a closely related organic system. Cognitive needs, affective needs, personal identity needs and technology needs are all strongly correlated ($r>0.84$), which verifies the theoretical assumption that multimedia news consumption behavior is driven by multiple needs, which often work together to affect user behavior and its results (Bahiyah et al., 2023). It is particularly noteworthy that the nearly perfect correlation between information seeking and information sharing behavior ($r=0.907$) indicates that the two are highly integrated in function, although the mean analysis shows that actual sharing behavior is significantly lower than information-seeking behavior, this "knowledge-behavior divergence" phenomenon suggests that although users generally agree on the value of information sharing, factors such as social norms or platform restrictions may inhibit actual sharing behavior. In addition, the high and stable correlation between various needs and gratifications dimensions (e.g., affective needs and entertainment gratification $r=0.887$; cognitive needs and technical gratification $r=0.868$) highlights the high fit between audience motivation and perceived benefits, which strongly supports the core view of the "use and gratification" theory. The research results show that optimizing multimedia content cannot only stay at the level of visual enhancement but also need to pay in-depth attention to the psychological and social needs that users subconsciously prioritize and can bring deep gratification.

The main contribution of this study is mainly reflected in constructing a motivation map of multimedia news consumption in developing countries, Online news portals should propose a "cognitive-social" dual-core driving model while revealing the hierarchical differentiation phenomenon of technology gratification.

Practical implications include it is recommended that news platforms focus on optimizing information visualization, developing social interaction functions, and implementing precise technical function iteration strategies. These findings not only enrich cross-cultural communication research and try to provide important references for the localization operation of digital journalism as well.

CONCLUSION

This study ultimately revealed that there are three key dimensions in the needs, uses, and gratifications of Malaysian online news users towards multimedia integration: first, at the functional level, the value of multimedia technology as a cognitive aid is the most prominent, which can effectively improve the comprehensibility of complex information; second, at the social and cultural level, multimedia content bears the dual functions of identity construction and community connection; finally, at the experience level, users show a dual expectation of both technical interactivity and content quality. These findings show that the media use behaviour of Malaysian users presents the characteristics of a typical blend of instrumental rationality and social rationality.

The research findings have important practical implications: first, the development of multimedia functions should follow the principle of "content first" to avoid usage barriers caused by technical stunts; second, a cultural adaptation mechanism should be established to fully consider the cultural sensitivity of Malaysia's diverse ethnic groups; third, it is recommended to adopt an incremental.

This study recommends that future studies employ different statistical methods with more sampling, such as structural equation modelling (SEM) and regression model analysis, to better understand this phenomenon. More focus on different demographic patterns would be very useful for multimedia news consumption.

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