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**Unlocking young people's engagement with online news:  
Affective or cognitive?**

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Manuscript Type:	Research Paper
Keywords:	social media engagement, news in society, news consumption, youth, cognitive

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## Online News Engagement

**Unlocking young people's engagement with online news: Affective or cognitive?****Abstract**

**Purpose:** Most new media research focuses on behavior as a measure of engagement, while the psychological state of being occupied with its content has received little attention. This study examined news engagement beyond pure action observation by exploring young people's psychological experiences with the news. **Methodology:** The study carried out a digital native's survey on 212 people (18 - 28 years). The focus of the survey was on understanding individuals' engagement with online news using affective and cognitive components. We compared the influence of each type of engagement on youth consumption of and attitudes to online news. **Findings:** The results of the hierarchical regression analysis showed that affective engagement can be a stronger predictor of online news consumption than cognitive engagement. While affective engagement significantly predicts positive attitudes to online news, cognitive engagement had no significant effect. **Values:** These findings suggest that 'engaging the heart' is more influential than 'engaging the mind' in drawing young people to the news in today's information environment. The study thus contributes to our understanding of the cognitive and emotional focus on news content and their importance in shaping young people's expectations of online news. The

## Online News Engagement

findings from this study could have broader implications for future trends in online news consumption.

**Keywords:** youth; news in society; news consumption; engagement; affective; cognitive

### 1. Introduction

Young people have been increasingly acclimatized to the online world. In the United States, 95 per cent of those aged 13 to 17 have access to a smartphone and 45 per cent are online almost constantly (Pew Research Center (2018). Studies of youth media usage have found that they use the Internet for many activities, including social networking, playing games, watching films and videos, searching for information, exchanging instant messages, listening to music, and catching up on the news (Vahlberg, 2010; Lee & Ma, 2012). Similarly, in Malaysia, youth are the greatest consumers of new media as they use them for communication, information seeking and entertainment (Omar, 2014; Shin & Ismail, 2014). As they divide their time among many things simultaneously on multiple online platforms, scholars are concerned about the limited time they have for news consumption (Lee & Leung, 2008; De Waal & Schoenbach, 2010).

The concern is nothing new. Prior to the popularity of the Internet, studies (e.g., Moser, 2014; Wonneberger & Kim, 2017) found that newspaper readership had declined steadily in many parts of the world. Youth contribute to the decline: studies find that this category of media consumers is not interested in news (Curran, Coen, & Soroka, 2014), especially hard news.

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Existing studies explain that the declining trend in news readership among the young stems from lack of time, different media preferences, little interest in the content (Huang, 2009) and an absence of connection between the news and their personal experiences and interests (Qayyum et al., 2010).

With the emergence of the Internet, which offers attractions such as interactivity, immediacy and convenience, many studies agree that the Internet has become a major source of news (Ha, Xu, & Yang, 2018; Casero-Ripollés, 2012) and some project a migration to online news sources for reading, watching and listening to the news among young adults (Pew Research Center, 2016). News research suggests that young people read news on different social media platforms (Lenhart, et al., 2010) and that they receive it on their mobile devices, through which they are constantly connected to the Internet (Pew Research Center, 2018). News consumption via social media is often characterized as exposure to ‘incidental news’, referring to a contemporary news environment in which people do not look for news but nevertheless, encounter it all the time (Ahmadi & Wohn, 2018; Boczkowski, Mitchelstein, & Matassi, 2017). Scholars have had mixed responses to the incidental news phenomenon. Some are optimistic that it addresses an earlier concern about the decline in news consumption (Lenhart, et al., 2010). Others are rather more skeptical because clicking on news items does not necessarily imply engaging with the content (Barnidge, 2015).

Engagement with online media has received much scholarly attention in recent years. Most often, behavioral aspects such as clicking, liking, sharing and commenting on media content are the focus for understanding online engagement in interactive media. In the context of news consumption,

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1  
2  
3 researchers examine the extent to which people click, like, share and comment  
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5 on news stories to indicate a form of involvement or engagement with the  
6  
7 news (Oeldorf-Hirsch & Sundar, 2015). The present study, however, argues  
8  
9 that investigation of news engagement should go beyond pure action, for two  
10  
11 main reasons. First, scholars in various fields agree that engagement is a  
12  
13 multidimensional concept, comprising context-specific expressions of  
14  
15 emotional, behavioral and cognitive involvement (Brodie et al., 2014). While  
16  
17 most previous studies (e.g., Aoun Barakat et al., 2021; Bastick, 2021; Pang et  
18  
19 al., 2022; Perski et al., 2020) use behavioral indicators to gauge engagement,  
20  
21 the emotional and cognitive components have received relatively little  
22  
23 attention until now. Second, studies have also found that online behavioral  
24  
25 participation does not necessarily imply real engagement between the subject  
26  
27 and the object (Nguyen et al., 2023). For example, social network users may  
28  
29 ‘like’, share or comment on news stories that are viral on their social networks  
30  
31 without engaging their minds thinking about the content of the news. Because  
32  
33 of the overwhelming amount of information on the online platforms, users are  
34  
35 often subject to selective exposure (Lee, Lindsey, & Kim, 2017), which  
36  
37 creates a ‘feeling of being informed’ (Müller, Schneiders, & Schäfer, 2016)  
38  
39 despite minimal if any engagement with the news content. Some users indulge  
40  
41 in the sharing culture without thinking at all about the accuracy of news,  
42  
43 which leads to the proliferation of ‘fake news’ (Goyanes & Lavin, 2018;  
44  
45 Aymanns, Foerster, & Georg, 2017), now reaching alarming levels.  
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54 This study aims to explicate the concept of news engagement by  
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56 exploring its cognitive and affective dimensions, examining their influence on  
57  
58 attitudes to online news and news consumption. We focus on youth (aged 18  
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to 28) because existing research suggests a trend of declining news consumption among young adults. This age group represents the so-called digital natives, born at the advent of the Internet (that is, after 1990) and raised in the digital era; examining their engagement with online news is particularly important. Moreover, a study by Omar, Ismail and Kee (2018) explored the effect of age categories on the consumption of public affairs news in Malaysia reveals that "digital immigrants", that is, those who were born before the 1990s, predict online news consumption, while no significant effect was found for digital natives. We study young people in Malaysia to offer an alternative to the Western-centric focus of most studies of contemporary practices in news consumption.

### **2. Affective vs cognitive news engagement**

The accumulation of experiences of online media use has drawn researchers' attention and an interest in examining engagement within the online media environment. Involvement in the online context is described as user experience with the technology or a media brand (Borghouts et al., 2021; Mersey, Malthouse, & Calder, 2010). More concretely, online engagement is "a phenomenon where viewers or readers are completely invested in the unfolding of the media content, often oblivious to the surrounding environment" (Oh, Bellur, & Sundar, 2015, p.3). The literature shows that media scholars take several approaches to the examination of online user engagement. The most common is to treat user engagement as a process. Research on social engagement approaches it as a progression of physical interactions, wherein individuals initiate, sustain, and conclude their

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connections with each other. Likewise, in media research, user engagement is viewed as a multifaceted process that encompasses physical interaction, interface assessment, absorption, and digital outreach (Kang & Lou, 2022; Zhang et al., 2023). The focus of this approach is action. A second approach found in the diverse literature (e.g., Delbaere et al., 2021; Santos et al., 2022; Yuan et al., 2020) defines engagement as a context-specific behavior (e.g., civic engagement, brand engagement and social engagement). In media studies, different forms of engagement are associated with different media. The personal engagement approach is more pertinent to the newspaper medium as it facilitates learning and stimulation, while social-interactive engagement is more applicable to the online medium as it allows users to socialize and interact in online communities (Chahal et al., 2020; Mersey, Malthouse, & Calder, 2010). Third, many studies have approached engagement as a multidimensional concept comprising behavioral (actions), cognitive (thoughts) and affective (feelings) dimensions (Brosch, 2021; Dessart & Pitardi, 2019; Lim et al., 2020). According to Steensen et al. (2020), audience engagement with news might encompass multiple dimensions—the technical, behavioral, emotional, normative, and spatiotemporal dimensions—that can be influenced by various modes of communication (e.g., human-to-content, human-to-machine, and machine-to-machine). Although there are studies that view engagement from a unidimensional perspective, they mostly involve all three dimensions, the dominant of which is the behavioral focus (Brodie, 2014). Another stream of studies looked at the nature of interaction (e.g., positive or negative) in driving users' engagement online. For example, Zhang et al. (2023) pointed

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out that social media engagement can encompass both positive and negative valenced interactions. These types of interactions are likely to lead social media users to perceive online news as a resource, evaluate its alignment with their capabilities, and ascertain the social significance of the platform.

Lievonen et al. (2023) argued that negative engagement behavior on social media can be categorized into the manifestation and emotional intensity of such behavior. Despite these multiple approaches, the concept of engagement in general can be applied in two senses: “starting” and “being occupied with” the content. “Starting” indicates the stage of initiating contact, while “being occupied with” refers to a more sustained involvement (Peters, Castellano, & De Freitas, 2009). The first stage suggests a behavioral aspect of engagement, while the latter suggests a kind of psychological experience. Our exploration here shows that most studies that examine online user engagement focus on the starting or action stage and often neglect the more important stage of becoming psychologically occupied with the content. Therefore, we propose the following hypothesis:

H<sub>1</sub>: Youth engagement with online news is a user psychological experience that comprises both affective and cognitive components.

Existing research often associates engagement with positive outcomes such as brand loyalty. A study of how readers of news engage with a media brand, in this case the *New York Times*, found that engagement leads to an increase in usage and attentiveness (Mersey, Malthouse, & Calder 2010). In this study, we examine two outcomes: attitude to online news, and news

## Online News Engagement

consumption. Firstly, attitude is a psychological tendency to respond to a phenomenon or an object, either favorably or unfavorably (Eagly & Chaiken, 1993). It involves favorable or unfavorable evaluations, feelings, and actions in relation to an idea or object (Tsang, Ho, & Liang, 2004) and explicit behavior that users present when accessing online newspapers (Yoo, 2011). In accordance with these definitions, we consider users' evaluations of the favorability of online news as representative of their attitudes to online news in general. This assumption is grounded in the literature. For instance, Marquart et al. (2020) reconceptualizes news literacy experiences among young people as a matter of engagement with sponsored content by social media influencers. This online engagement is assumed to shape users' attitudes towards news by making them aware of potential personal gain (such as increasing the number of followers) and by prompting them to question the genuineness of such behavior. Furthermore, users who actively engage with online news and certain sources on social media tend to have a positive attitude towards news-sharing and demonstrate an increased likelihood of actually sharing the news as well (Bhagat & Kim, 2023). Prior studies (e.g., Guo & Sun, 2022) have reported that message interactivity can be influenced by various affective and behavioral outcomes, such as attitude, and can also impact users' sharing behavior. Ritonga et al. (2022) observed that individuals who actively engage with online content are likely to exhibit high levels of affective and cognitive involvement. Conversely, individuals who display passive sociability do not engage in both affective and cognitive aspects of their work. Despite some evidence of a positive link between attitude and engagement (Gastil & Xenos, 2010), there seems to be a lack of

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2  
3 understanding regarding how young users' engagement (both cognitive and  
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5 affective) with online news shapes their attitudes on social media (Baber,  
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7 2020). Therefore, the following hypothesis is shaped:  
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12 H<sub>2</sub>: Youth engagement with online news, a user psychological  
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14 experience comprising affective (H2a) and cognitive (H2b)  
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16 components, is positively related to their attitudes to online news.  
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21 Secondly, news consumption is expected to be a consequence of  
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23 engagement with news. The terms 'use' and 'consumption' are likely to be  
24  
25 employed interchangeably. Most studies define consumption as the level of  
26  
27 exposure to news (Yang & Patwardhan, 2004), while others describe it as  
28  
29 news-use habits (Van Dijk, 2006)(Matthews, 2022; Su et al., 2022; Vogler et  
30  
31 al., 2023). The literature showed that individuals' engagement with social  
32  
33 media news differs from other types of news consumption because it can take  
34  
35 various forms, with some being more active than others (Dvir-Gvirsman,  
36  
37 2022; Gajardo & Costera Meijer, 2022). According to Molyneux (2019), the  
38  
39 more platforms a person uses to obtain news, the higher their levels of  
40  
41 engagement. However, users' news consumption may be significantly  
42  
43 influenced by the cognitive aspect, with the most engaged individuals seeking  
44  
45 news from multiple platforms. It still appears that engagement with multiple  
46  
47 social media platforms may lead to greater cognitive processing, thereby  
48  
49 encouraging audiences to consume online information across various  
50  
51 platforms. Additionally, there is a lack of knowledge about how engagement  
52  
53 with social media news can drive users' information consumption (Andersen,  
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## Online News Engagement

2022). While most extant research examines general news exposure or overall news-use habits, we specifically examine exposure to public affairs news online in order to determine the level of news consumption. Given the limited associations found in the literature between engagement and news consumption, this study formulated the following hypotheses:

H<sub>3</sub>: Youth engagement with online news, a user psychological experience comprising affective (H3a) and cognitive (H3b) components, is positively related to their online news consumption.

### 3. Method

#### 3.1 Participants and procedure

We recruited 212 young people to participate in an online survey via social media. The targeted group was Malaysian youth aged between 18 and 28 years old. Besides age, this study selected respondents who consume news online regularly. The prospective respondents were selected through a pre-requisite filter question, which is “Are you an online news consumer?”. Once the respondents had identified themselves as online news consumers, regardless of which online channels they were referring to, they were eligible to participate in this study. The survey was distributed online to various social media channels (e.g., Facebook, WhatsApp, and Twitter). An online survey seemed to be the most appropriate method for this study for two reasons. First, it is a cost-effective way to reach a large and scattered audience. Second, many young people are in constant connection with the online medium and thus may find an online survey more attractive than a paper-and-

## Online News Engagement

pencil survey. A SurveyMonkey website link was disseminated to the prospective respondents via their social media account. The collected responses were then saved and processed for further data analysis.

### *3.2 Measures*

Online news reporting involves the narration of stories in the forms of text, video, photos or a combination of multimedia content. In this study, we conceptualize news engagement as an experience of being involved in the narrative world, so we adopted the narrative engagement measure to explore online news engagement. According to Acic (2023) and Busselle and Bilandzic (2009), scholars describe different aspects of narrative engagement using a number of constructs such as transportation (Thier et al., 2021), identification (Cohen, 2018; Gregory et al., 2020), flow (Sherry, 2004), and presence (Weech et al., 2020). It involves understanding the narrative, focusing on it (or distraction from it), attaching emotionally to the character(s) (or the content) and transitioning personally from the actual world to the story world (Van Dijk, 2006). We used Busselle and Bilandzic's (see Appendix) measure of narrative engagement to examine online news engagement for this study, using two dependent variables. The first is attitude to online news, which was measured on 5-point semantic differential scale. The second is consumption of online news, which refers to frequency of online media use for news consumption, measured on a 5-point Likert scale, ranging from 'never use' to 'use several times a day'.

## Online News Engagement

### 3.3 Statistical analysis

All analyses in this study were conducted using the SPSS software (Statistical Package for Social Sciences). We primarily employed Principal Component Analysis (PCA) to categorize youth's engagement with online news into a model consisting of two factors while identifying the internal structure of engagement. PCA involves a series of statistical modeling measures aimed at determining potential correlations between variables and summarizing the dataset through specific linear combinations of these variables, known as principal components. Each principal component comprises interrelated variables that approximate a data grouping. The first component reflects the most significant source of variance in the original data, and each subsequent component accounts for as much of the remaining variability as possible. Additionally, we used varimax rotation to minimize correlations between the factors.

Hierarchical regression analysis was employed to examine the independent relationship between engagement factors, attitudes, and news consumption. The normality and linearity of the data were assessed through residual plots. Multicollinearity was addressed in this study by excluding variables with a variance inflation factor exceeding 10 and a tolerance level below 0.10. The results are presented in the following section.

## 4. Results

### 4.1 Sample characteristics

The sample ( $N=212$ ) involved youth aged between 18 and 28 years old and consisted of more females (71.2%) than males (28.8%). On average, they

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2  
3 spent about an hour reading news online. Nearly all (95.3%) access news via  
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5 mobile phones and more than two thirds (68%) read news on their laptops or  
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7 computers. The most popular platform for accessing news was Facebook  
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9 (90.6%), followed by online news websites (67.9%). Other social media  
10  
11 platforms such as Twitter (19.3%), blogs (12.7%) and Google+ (13.7%) were  
12  
13 less popular among youth in this study. Only one in ten of them (9.9%) read  
14  
15 more than 20 news items on social media per day, while many (41.5%) read  
16  
17 between 6 to 10 news in a day.  
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### ***4.2 Hypothesis Testing***

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25  
26 The three hypotheses advanced in this study were tested through  
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28 exploratory factor analysis (H1) and a series of hierarchical regression  
29  
30 analyses (H2a & H2b and H3a & H3b). Twelve news-engagement items were  
31  
32 examined using PCA, with a varimax rotation. The results showed two  
33  
34 components that meet Kaiser's criterion of eigenvalues greater than 1.0,  
35  
36 explaining 61 per cent of the variance. This study retained factors with factor  
37  
38 loadings greater than 0.6 (Hair et al., 2014). The scree plot also reveals a  
39  
40 break in the slope of eigenvalues after the second factor. The two factors were  
41  
42 interpreted accordingly. The first factor describes emotional attachment that  
43  
44 users felt; as if, psychologically, they were witnessing the news being brought  
45  
46 to them via multimedia content. We labeled the first factor affective  
47  
48 engagement. The second factor describes the extent to which users focus their  
49  
50 energy and attention on the news stories. It is about user cognition when  
51  
52 reading online news. We labelled the second factor cognitive engagement.  
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## Online News Engagement

Table 1 displays the results of two components of youth engagement with the news. Hence, H1 was supported.

[INSERT TABLE 1 HERE]

Two hierarchical regression analyses were conducted to test the hypotheses. We tested the effects of affective engagement and cognitive engagement (IVs) on attitudes to online news and online news consumption (DVs), while controlling for gender, news interest and time spent on news in general in the first block. Preliminary testing of collinearity statistics (tolerance and variance inflation factors) showed no multicollinearity issue in the dataset.

Our findings suggest that affective engagement is positively and significantly associated with attitudes to online news ( $\beta = .247, p = .000$ ) and it emerged as the only significant predictor for the first model. The result suggests that emotionally engaging news stories create positive attitudes to online news among young customers. On the other hand, cognitive engagement was not significantly associated with attitudes to online news ( $\beta = -.074, p = .334$ ); suggesting that youth who are mentally engaged with the news do not have positive attitudes to online news. Hence, there was mixed support for H2; only the effect of affective engagement on attitudes was supported. We found that both affective ( $\beta = .327, p = .000$ ) and cognitive ( $\beta = .208, p = .010$ ) engagements have positive and significant relationships with online news consumption. Psychological experience involving cognitive and affective engagement with the news predicts online news consumption. Thus,

## Online News Engagement

H3 was fully supported by our study. The results also suggest that emotional attachment has a greater influence than cognition in youth engagement with the news, as affective engagement was found to make a greater contribution to  $R^2$  increment than cognitive engagement, in both models. Table 2 and Table 3 present the results of the hypothesis testing.

[INSERT TABLE 2 HERE]

[INSERT TABLE 3 HERE]

## 5. Discussion

Unlike existing research, which focuses on user behaviors of liking, sharing or commenting on news as forms of news engagement, our approach focuses on the state of being psychologically occupied by the news in order to understand youth engagement with online news. **This study reaffirms the description of user engagement found in a few other studies (Cohen, 2018; Gregory et al., 2020; O'Brien & Toms, 2010) as a strong cognitive and emotional focus on media content that absorbs users in a mediated experience.** We extended our exploration by comparing the influence of each type of engagement and found that affective engagement has greater influence than cognitive engagement in predicting youth attitudes to online news and their online news consumption. The findings have several implications.

Our results suggest that youth who engage emotionally with news stories are more inclined to consume news online. This shows that the affective component has emerged as a crucial factor influencing youth

## Online News Engagement

1  
2  
3 engagement in online news. This finding supports an earlier study by  
4  
5 Arapakis et al. (2005) that identified the affective component as an essential  
6  
7 characteristic of user engagement with the news. It is important to note that  
8  
9 there is a vast amount of news and information available online but only a few  
10  
11 are noticed and have the capacity to engage readers (Szabo & Huberman,  
12  
13 2010). News stories compete with other online content and activities for  
14  
15 users' attention and engagement. A study by Arapakis (2014) suggest that  
16  
17 news organizations should include strong sentiment and negative connotations  
18  
19 in the content if they want to affectively engage online readers. While making  
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21 the news article interesting is an important process in engaging readers, we  
22  
23 highlight the importance of multimedia story-telling to enhance user  
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25 engagement in the mediated news experience. Multimedia content, such as  
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27 news videos, podcasts and picture galleries allow users to feel as if they were  
28  
29 witnessing the events and hence engage them emotionally with the reports.  
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31 We found that affective engagement involves the psychological experience of  
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33 consuming news in a format that can bring the news stories to life and hence  
34  
35 engage the hearts of young news consumers. Recent trends in news  
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37 consumption also suggest that this segment of the news audience prefers  
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39 video to text (WARC, 2015) and podcasts to speech radio (Newman, 2018)  
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41 for news and information. We would encourage future researchers to examine  
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43 the effects of different media formats on youth affective engagement with the  
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45 news in order to enhance our understanding of news engagement in the  
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47 contemporary news environment.  
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56 This study also found that cognitive engagement continues to be an  
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58 important predictor of youth news consumption, although its influence is less  
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## Online News Engagement

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3 than the affective component. Our results suggest that youth experience  
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5 cognitive engagement with the news through temporal dissociation, focused  
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7 attention and mental immersion. These are indicators of cognitive  
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9 involvement that involve young minds in the news stories. This finding  
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11 echoes existing research (McLeod & McDonald, 1985; Becker & Kosicki,  
12  
13 1995) that has established a link between cognitive needs and news  
14  
15 consumption. In fact, news research within the Uses and Gratification (U&G)  
16  
17 framework has often found that surveillance gratification seeking, viz, the  
18  
19 need to acquire information, knowledge and understanding, encourages  
20  
21 learning from news (Eveland, 2002). Consistent with the general assumption  
22  
23 that news or information seeking is associated with cognitive processes, our  
24  
25 study provides evidence that cognitive engagement is a determining factor in  
26  
27 youth news consumption. However, we also found that cognitive appeal does  
28  
29 not predict positive attitudes to online news among youth. Perhaps the  
30  
31 findings of earlier research which suggests that youth are less likely to read  
32  
33 hard news and more likely to read entertainment news (Freeman, 2013) can  
34  
35 explain our finding. Considering the insignificant role of cognitive  
36  
37 engagement in predicting positive attitudes to online news among youth, more  
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39 research is required to examine the factors contributing to cognitive  
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41 engagement. We assume that cognitive engagement may lead to better  
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43 comprehension of important social issues. Hence it is crucial to understand  
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45 how youth, as the future generations of nations, can engage their minds  
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47 thinking about and elaborating on the news that they read.  
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## Online News Engagement

### **6. Limitations and future works**

This study has certain limitations that future research can address. Firstly, the sample size consisted of young social media users recruited from specific platforms like Facebook, WhatsApp, and Twitter. Future studies should consider diversifying the sample by including users from platforms like Instagram and TikTok. Secondly, this study primarily focused on understanding the attitudes and consumption of online news among young users from specific cognitive and affective engagement perspectives. Future research should explore other factors that drive user engagement and their relationships with news consumption. It is also assumed that the outcomes and behaviors of young users' engagement with social media news have changed since the time this study was conducted, and future research needs to track and explore these changes in online engagement. Finally, this study did not control for other users' characteristics (e.g., age and personality) when analyzing young users' engagement, which could provide valuable insights.

### **7. Implications and Conclusion**

This study has managerial implications for journalism practices. In the era of new media, objectivity remains a core value in journalism, but feeding people's curiosities and their emotions are also taking on greater and greater significance. News organizations must understand that media industry landscape has drastically changed in today's digital environment. The advent of new media gives individuals the opportunity to become news and information producers; this is proving to be a serious challenge to traditional news organizations. The fact that people have developed intimacy with their

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3 digital devices, particularly smartphones, to access news and information  
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5 suggests that the way people consume news has changed as well. It is  
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7 important for news organizations to find the cutting edge needed to ensure  
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9 that they remain relevant and competitive. News providers must keep abreast  
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11 with changes in their audience's news habits and preferences if they are to  
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13 secure their continuous engagement. As our study reveals, greater emphasis  
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15 should be given to the affective component of online news. The demand for a  
16  
17 more personalized approach, one that appeals to users' multiple senses,  
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19 requires news organizations to provide readers with emotional experiences.  
20  
21 This can be achieved by understanding readers' emotions, in particular, the  
22  
23 impact or the arousal state that news generates. Nevertheless, the importance  
24  
25 of news in fulfilling cognitive needs should not be ignored. People still read  
26  
27 news to learn about what is happening around them and in the wider world.  
28  
29 News providers must understand that cognitive engagement remains  
30  
31 important in the context of news consumption but that focusing on this  
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33 component alone will not be enough to ensure their survival and prosperity in  
34  
35 today's competitive media environment.  
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42 Our findings are significant, especially in how they address present  
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44 and future expectations of journalism practice and the news industry. By now,  
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46 we are aware of the importance of the affective aspect of news production and  
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48 consumption, but this is just the tip of the iceberg. Much remains unknown  
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50 about human affective states and their relationship to online news  
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52 consumption. This is perhaps because unlike in the area of online marketing,  
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54 where studies investigating the emotional states of consumers abound,  
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56 equivalent literature about online news remains limited. This study proposes  
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## Online News Engagement

that future studies zoom in closer to readers' online attitudes and behavior, aiming to provide a more thorough understanding of their engagement with the news in various contexts.

### Statements

- Conflict of interest: All authors declare that they have no conflict of interest.
- Data availability: The datasets generated during and/or analyzed during the current study are not publicly available due to research restrictions but are available from the corresponding author on reasonable request.
- Informed consent: all participants gave written informed consent to participate in the study.

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Online Information Review

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3 **TABLES**  
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8 Table 1. Factor Loading Using Principal Component Analysis with Varimax Rotation  
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Items ( <i>N</i> = 213)	Factor		<i>Eigen</i>	% of var	<i>M</i>	$\alpha$
	1	2				
The multimedia news content often made me feel as if I was transported to the place where the event occurred	.834		5.38	48.93	3.32	.845
The vividness of online news allows me to picture myself at the scene of news event	.832				(.65)	
I often felt like the news events I watched online happened before my very eyes.	.741					
When I accessed news online, I could easily picture the event as it is taking place	.714					
While I was reading online news, I was able to block out most other distractions		.867	1.34	12.21	3.22	.778
My attention did not get diverted when reading online news		.802			(.62)	
I found myself mentally immersed in the news stories that I read online		.644				

36 *Note.* Loadings below .60 not included, 7-point Likert Scale was used  
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Table 21. Hierarchical Linear Regression Predicting Attitude Towards Online News

Variables	B	SE (B)	$\beta$	$p$ (2-tailed)
Step 1: Control Variables				
Gender (Female = 1, Male = 0)	.065	.108	.042	.547
Interest in news	.030	.043	.050	.491
Time spent on news in general per day	.001	.001	.123	.093
	$R^2 = .023$ , Adj $R^2 = .009$			
	$F(3, 208) = 1.611$ , $p = 1.88$			
Step 2:				
Affective Engagement	.272	.074	.247	.000
	$R^2 = .082$ ( $\Delta R^2 = .060$ , $p = .000$ ), Adj $R^2 = .065$			
	$F(4, 207) = 4.653$ , $p = .001$			
Step 3:				
Cognitive Engagement	-.085	.088	-.074	.334
	$R^2 = .087$ ( $\Delta R^2 = .004$ , $p = .334$ ), Adj $R^2 = .064$			
	$F(5, 206) = 3.908$ , $p = .002$			

Note: B, SE(B),  $\beta$  and  $p$  are from the final regression equation with all blocks of variables in the model

Table 32. Hierarchical Linear Regression Predicting Online News Consumption

Variables	B	SE (B)	$\beta$	$p$ (2-tailed)
Step 1: Control Variables				
Gender (Female = 1, Male = 0)	-.191	.102	-.123	.063
Interest in news	.096	.041	.164	.020
Time spent on news in general per day	.002	.001	.195	.006
	$R^2 = .108$ , Adj $R^2 = .095$			
	$F(3, 208) = 8.422$ , $p = .000$			
Step 2:				
Affective Engagement	.327	.068	.300	.000
	$R^2 = .197$ ( $\Delta R^2 = .088$ , $p = .000$ ), Adj $R^2 = .181$			
	$F(4, 207) = 12.671$ , $p = .000$			
Step 3:				
Cognitive Engagement	.208	.080	.184	.010
	$R^2 = .222$ ( $\Delta R^2 = .025$ , $p = .010$ ), Adj $R^2 = .203$			
	$F(5, 206) = 11.767$ , $p = .000$			

Note: B, SE(B),  $\beta$  and  $p$  are from the final regression equation with all blocks of variables in the model