

The Awareness–Behaviour Paradox: Media Literacy and Social Media Risk Behaviour Among Nigerian Undergraduates

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Abstract

Background: The proliferation of internet-capable devices and social media platforms has created an intricate web of risks for Nigerian undergraduates, including cyberbullying, addiction, misinformation, and exposure to indecent content. While media literacy has been widely proposed in Western scholarship as a sustainable intervention for responsible online behaviour, its protective mechanisms remain insufficiently understood in non-Western contexts, particularly with respect to the psychological pathways through which literacy operates. **Objectives:** This study examined the impact of media literacy on the mitigation of risks associated with social media use among university students in Oyo State, Nigeria. Specifically, it investigated patterns of social media use, levels of media, news, and social media literacy, social media risk behaviour, and the mediating roles of self-efficacy and cognitive needs in the literacy–risk behaviour relationship. **Methods:** A cross-sectional quantitative survey design was adopted. A structured electronic questionnaire was administered to 391 valid respondents drawn from Ladoke Akintola University of Technology (LAUTECH) and the University of Ibadan (UI) during the 2024/2025 academic session using probability proportionate to size sampling. Data were analysed using descriptive statistics, simple linear regression, and Hayes' PROCESS macro for mediation analysis. **Results:** Respondents exhibited habitual and compulsive social media engagement, with WhatsApp dominant for both content-sharing and news consumption. Students demonstrated strongest proficiency in news literacy, intermediate social media literacy, and weakest general media literacy. A significant awareness–behaviour gap was identified: all three literacy dimensions positively and significantly predicted self-efficacy and cognitive needs, and both mediators were positively associated with social media risk behaviour. Five of six mediation hypotheses revealed unexpected positive partial mediation, indicating that higher literacy indirectly increases risk exposure through elevated self-efficacy and cognitive engagement. **Conclusions:** Media literacy, as naturally developed through informal digital engagement, does not mitigate social media risk behaviour. On the contrary, higher literacy was associated with greater risk exposure via an "awareness–behaviour paradox." Genuine risk mitigation requires deliberate instruction in self-regulation, ethical digital conduct, and algorithmic awareness beyond technical skills.

Keywords: Media literacy, social media risks, self-efficacy, cognitive needs, university students, oyo state, Nigeria

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INTRODUCTION

The role of literacy in societies is crucial and cannot be underestimated. As UNESCO [23] (2019) asserted, literacy encompasses more than traditional skills; it has evolved into a tool for identification, comprehension, interpretation, creation, and communication within an increasingly digital, information-saturated environment. Among the critical areas requiring

immediate attention is media literacy, defined as the capacity to access, analyse, evaluate, produce, and effectively utilise media content [1].

Social media has become deeply embedded in the daily routines of young people worldwide. Adolescents have never known a time without digital networks, and platform use has created both unprecedented opportunities and complex risks (Powers, [18] 2017). Among the risks documented in the literature are cyberbullying, exposure to indecent or sexual content, misinformation spread, online financial fraud, and academic disruption (Vannucci, Simpson, Gagnon & Ohannessian, [27] 2020).

Nigeria presents a particularly relevant context. The rapid expansion of affordable smartphones and cheaper data plans has made Nigeria one of the most digitally active youth populations in Africa (Akeusola, [1] 2024). Studies consistently document high social media engagement among Nigerian undergraduates across platforms such as WhatsApp, Facebook, Instagram, and Twitter (Tayo, Adebola & Yahya, [22] 2019; Nwosu, Ikwuka, Onyinyechi & Unachukwu, [17] 2020). However, the mechanisms through which media literacy may influence online risk behaviour in this context remain insufficiently understood, particularly regarding the psychological pathways of self-efficacy and cognitive needs [2].

Despite substantial evidence from Western scholarship that media literacy functions as a protective factor (Vahedi, Sibalis & Sutherland, [26] 2018; Scull, Dodson, Geller, Reeder & Stump, [19] 2022), a growing body of work has found a counterintuitive positive association between digital skills and online risk exposure (Vissenberg, d'Haenens & Livingstone, [28] 2022; Cabello-Hutt, Cabello & Claro, [4] 2018). This study addresses the gap by empirically testing whether media literacy mitigates social media risk behaviour or paradoxically amplifies it, and by specifying the psychological mechanisms through which this relationship operates [3].

The study was grounded in Social Cognitive Theory (SCT; Bandura, [2] 1986) and Uses and Gratifications Theory (UGT; Katz, Blumler & Gurevitch, [7] 1974). SCT provides a framework for understanding how self-efficacy beliefs shape online behaviour, while UGT explains the motivational, need-driven dimensions of media engagement. Together, they posit self-efficacy and cognitive needs as parallel pathways through which media literacy was hypothesised to reduce online risk exposure [4].

Materials and Methods

Research Design and Participants

A cross-sectional quantitative survey design was adopted for this study. The study population comprised all undergraduate students of the University of Ibadan (UI) and Ladoke Akintola University of Technology (LAUTECH), Oyo State, Nigeria, registered for the 2024/2025 academic session [5]. Probability proportionate to size (PPS) sampling was employed to ensure proportional representation across the two institutions [6]. Using the Krejcie and Morgan [9] (1970) formula for a combined population of approximately 67,000 students, a sample of 420 was calculated, of which 391 responses were valid after data cleaning [7].

Instrument

Data were collected via a structured electronic questionnaire administered online. The instrument comprised six sections: (1) demographic profile; (2) patterns of social media use; (3) perceived media literacy, news literacy, and social media literacy; (4) knowledge of risk-mitigating factors (self-efficacy and cognitive needs); (5) awareness of social media risk behaviour; and (6) personal involvement in social media risk behaviour. Constructs were measured on validated Likert-type scales. Reliability was confirmed through Cronbach's alpha coefficients exceeding 0.70 for all constructs [8].

Measurement

Media literacy (MEL) was measured using adapted items from Koc and Barut's [8] (2016) New Media Literacy Scale [9]. News literacy (NEL) was measured using items adapted from Maks, Ashley and Craft [13] (2015). Social media literacy (SML) was assessed using items adapted from Tandoc et al. [21] (2021). Self-efficacy (SE) was measured using eight items reflecting perceived capability to navigate online risks (Hocevar, Flanagan & Metzger, [6] 2014). Cognitive needs (CON) were measured using the six-item Need for Cognition Scale (Lins de Holanda Coelho, Hanel & Wolf, [11] 2020). Social media risk behaviour (SRB) was assessed using items capturing both awareness of and personal involvement in online risks [10].

Data Analysis

Data were analysed using IBM SPSS version 26.0. Descriptive statistics (frequencies, means, standard deviations) addressed the research questions [11]. Fourteen hypotheses were tested using simple linear regression and Hayes' PROCESS macro (Model 4) for mediation analysis with 5,000 bootstrap samples and 95% bias-corrected confidence intervals [12].

Results

Demographic Profile

Of the 391 valid respondents, 61.9% were female and 38.1% male. Most (72.6%) fell within the 20–25 age range. LAUTECH contributed 54.7% and UI 45.3% of respondents [13].

Patterns of Social Media Use

The majority of respondents confirmed habitual and compulsive engagement: using social media as a daily routine, browsing during free time, and checking devices immediately before sleep. Many reported boredom and discomfort when unable to access platforms [14]. WhatsApp emerged as the dominant platform for both picture-sharing ($M = 3.97$) and news consumption ($M = 4.12$), reflecting its closed-network design and the associated risks of unverified information circulation within trusted peer groups [15].

Levels of Media Literacy

Students demonstrated a three-tier literacy profile. News literacy was strongest ($M = 4.24$), reflecting solid critical awareness of news construction, audience influence, and bias. Social media literacy was intermediate ($M = 3.89$), with high operational competence but limited awareness of algorithmic targeting, copyright law, and platform monetisation. General media literacy was weakest ($M = 3.61$), particularly in creative content production and critical content design [16].

Social Media Risk Behaviour

Respondents showed high awareness of online risks, including dangers of unknown links, unverified content sharing, and stranger requests [17]. However, a significant awareness–behaviour gap was evident: students simultaneously acknowledged personal involvement in unwanted sexual content exposure, online financial fraud, unauthorised account access, and academic disruption from excessive platform use [18].

Hypothesis Testing: Direct Associations

All six direct-association hypotheses (H1a–c; H2a–c) were supported. All three literacy dimensions positively and significantly predicted both self-efficacy and cognitive needs ($p < .001$). Social media literacy produced the strongest association with self-efficacy ($\beta = .562$, $R^2 = .316$, $p < .001$). Both self-efficacy ($\beta = .481$, $R^2 = .231$, $p < .001$; H3a) and cognitive needs ($\beta = .261$, $R^2 = .068$, $p < .001$; H3b) were significant positive predictors of social media risk behaviour, confirming these constructs as meaningful—if paradoxical—drivers of engagement rather than protective buffers [19].

Mediation Analyses

Six mediation hypotheses (H4a–c; H5a–c) predicted that self-efficacy and cognitive needs would negatively mediate the literacy–risk relationship. Contrary to predictions, five of six analyses revealed significant positive partial mediation. (Table 1)

Table 1. Summary of mediation analysis results.

Hypothesis	Indirect effect (B)	95% Bootstrap CI	Direction	Supported
H4a: MEL → SE → SRB	0.146	[0.086, 0.221]	Positive	No
H4b: NEL → SE → SRB	0.134	[0.071, 0.217]	Positive	No
H4c: SML → SE → SRB	0.184	[0.101, 0.285]	Positive	No
H5a: MEL → CON → SRB	0.041	[0.012, 0.083]	Positive	No
H5b: NEL → CON → SRB	0.035	[0.007, 0.078]	Positive	No
H5c: SML → CON → SRB	0.036	[-0.015, 0.092]	None	No

Note. MEL = Media Literacy; NEL = News Literacy; SML = Social Media Literacy; SE = Self-Efficacy; CON = Cognitive Needs; SRB = Social Media Risk Behaviour.

The social media literacy → self-efficacy pathway produced the largest indirect effect ($B = 0.184$), indicating that platform-specific literacy most strongly amplifies risk engagement through elevated confidence [20]. The cognitive needs pathways consistently demonstrated smaller effects ($B = 0.035$ – 0.041), and the SML → CON pathway yielded no significant mediation [21].

Discussion

The study's most consequential finding is the identification of what this paper terms the "awareness–behaviour paradox": students who were more media literate, more confident in their digital abilities, and more cognitively engaged with online content were not demonstrably safer online [22]. Rather, they were more exposed to social media risk. This finding extends the work of Vissenberg et al. [28]. (2022), Cabello-Hutt et al. [4] (2018), and Livingstone and Helsper [12] (2010), who similarly found that digital skills enabling online opportunities also—indirectly—increase risk exposure [23].

The mechanism is explicable from both theoretical frameworks. From an SCT perspective, self-efficacy reflects confidence in one's abilities, but without accompanying self-regulatory skills, that confidence produces overconfidence: a tendency to underestimate specific threats because one feels generally capable (Bandura, [2] 1986; Bonsaksen, Steigen, Stea, Kleppang, Lien & Leonhardt, [3] 2023). From a UGT perspective, strong cognitive needs drive deeper and more exploratory platform engagement in pursuit of information and intellectual stimulation, which statistically increases exposure to harmful content and adversarial interactions (Leung, [10] 2014; Shi, Chen & Tian, [20] 2011).

The three-tier literacy profile—news literacy strongest, social media literacy intermediate, general media literacy weakest—suggests that competencies are domain-specific rather than broadly transferable (Cho, Cannon, Lopez & Li, [5] 2024). The dominance of WhatsApp, with its closed-network design, is particularly concerning; interpersonal trust within peer networks substitutes for independent verification (Ndubueze, [15] 2025; Vosoughi, Roy & Aral, [29] 2018).

These results appear to contradict intervention studies demonstrating media literacy's protective effects (Vahedi et al., [26] 2018; Scull et al., [19] 2022; McLean, Paxton & Wertheim, [14] 2016). The critical distinction is methodological: those studies tested structured programmes that explicitly taught behavioural self-regulation alongside critical skills. This study measured naturally occurring literacy in a cross-sectional design, without controlling for the quality or intentionality of prior literacy instruction. Literacy capable of reducing risk is not simply a higher degree of knowledge but a particular orientation toward behavioural restraint—qualities not automatically cultivated through informal digital engagement [24].

This study advances the existing literature by specifying the psychological mechanisms of self-efficacy and cognitive needs through which the digital literacy–risk paradox operates, representing a substantive theoretical contribution to non-Western scholarship on digital safety [25].

CONCLUSION

This study investigated the impact of media literacy on social media risk behaviour among Nigerian undergraduates at LAUTECH and UI, drawing on data from 391 respondents and the integrated frameworks of Social Cognitive Theory and Uses and Gratifications Theory.

The evidence confirms that social media has become deeply embedded in the daily routines of Nigerian undergraduates, creating a structural condition of vulnerability that media literacy alone cannot dissolve. The central finding is that media literacy, as it naturally develops through informal digital engagement, does not mitigate social media risk behaviour; higher literacy was positively associated with greater risk exposure, both directly and indirectly through the amplification of self-efficacy and cognitive needs.

The study concludes that literacy is a necessary but insufficient condition for online safety. Genuine risk mitigation requires deliberate instruction in self-regulation, ethical digital conduct, and algorithmic awareness. Practically, the National Universities Commission (NUC) should mandate Critical Media Literacy curricula that move beyond basic digital skills to address behavioural self-regulation, while university counselling units should develop digital-wellbeing modules targeting the psychological drivers of over-engagement.

Limitations include the cross-sectional design, which limits causal inference, and the restriction to two public universities in Oyo State. Future research should employ longitudinal designs, structural equation modelling, and qualitative methods to explore the subjective motivations underlying the awareness-behaviour paradox across diverse Nigerian higher-education contexts.

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