

Social Isolation in the Digital Age: A Study of Management Undergraduates in Chitwan

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ABSTRACT

Social isolation means being disconnected and having few or no social activities that are meaningful. Due to the current era of rapid digitalization, young adults are increasingly using digital platforms at work and school, which could have social disadvantages. Research that examines social isolation among management undergraduate students and the relationship of social isolation to digital behaviors (social media use, preference to communicate digitally, online learning, and screen time) has not been published before. Using structured questionnaires, the author collected data to formulate the social isolation and the digital behaviors relationship. Results from the structured questionnaires, studied using binary logistic regression, revealed that social isolation is likely to occur at higher levels of screen time. The exceptions to this were social media, preference to communicate digitally, and learning online. The author concludes that the social well-being of students is threatened because of the excessive use of screens and suggests that, for example, digital engagement and social activities need to go hand in hand with students' physical presence. The research provides important information to educators, policymakers, and mental health practitioners about promoting social connectedness while navigating the challenges of a digital learning ecosystem.

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1. INTRODUCTION

University students are one of the many demographic groups that have integrated digital technologies into their daily routines. As one of the primary forms of communication and learning available, students are using social media and other online communication tools in tandem with other digital learning technologies. Scholars have warned that while tools are available for communication and interaction, unstructured and excessive use of digital technologies may lead to the reduction of actual social interactions, as well as social isolation. Psychologically, humans are social beings and need to interact with others in a meaningful way. When this need is not fulfilled, individuals may experience psychological discomfort, loneliness and emotional distress (Baumeister & Leary, 1995; Cacioppo & Hawley, 2009).

The social effects of digital engagement are not clear in existing evidence. Increased screen time and problematic social media use often correlate with greater social loneliness and social isolation of adolescents and young adults (Primak et al., 2017; Wu et al., 2024). On the other hand, other research suggests that the social effects of digital engagement, in this case, digital technologies, depend more on the quality and purpose of digital engagement than on the quantity. Meaningful online communication, optimal social online interactions, and optimal screen time use have been associated with more social engagement and more psychosocial well-being (Nowland et al., 2018; Anderl et al., 2024).

In Nepal, the digital engagement of undergraduate students, like other areas of the world, has been increasing, and with it the evidence on the social implications of digital engagement has been increasing, but not as quickly. Little is known in the semi-urban parts of Nepal, especially in Chitwan about whether the intentional social media use digital communication, online learning, and controlled screen time, can minimize the feeling

of social isolation is social isolation. The current research focuses on social isolation affecting management undergraduate students in Chitwan, Nepal, to address the gap and develop educational practices and digital wellbeing policies.

2. LITERATURE REVIEW

Research indicates that digital behavior as a function of age can impact social isolation and the psychosocial wellbeing of the affected individuals. Unmonitored screen time often causes social isolation and can induce anxiety and heightened feelings of loneliness. Robert et al. (2022) found that the social connectedness impact of smartphone usage was dependent on the purpose and quality of the interaction. Choi et al. (2025) found that engagement anxiety was exacerbated by social media. Qirtas et al. (2024) found that loneliness was predicted by patterns of media usage. Wang et al. (2024) found that the correlational moderation of loneliness by shyness was typical in increased social media usage. Obsessive engagement in social networking, as suggested by Kuss & Griffiths (2017), does not foster the mental well-being and social connections of an individual. According to the research by Borraccino et al. (2022), the issues affecting social media, coupled with the lack of social support, lead to emotional disturbance or aggressiveness among teenagers. Not all engagements that occur digitally are damaging. Caba Machado et al. (2023) illustrate that when individuals use social media actively and with purpose, they can develop perceived social support and provide an opportunity to utilize social media as a source of perceived social support. Moderately and purposefully using technology will not cause unfavourable consequences (Przybylki & Weinstein, 2017). Supportive and supportive interactions on the internet can positively improve psychological resilience and overall well-being (Jiang et al., 2023; Kou, 2024; Nagata et al., 2025; Younis, Khan, & Fazal, 2024).

In the context of Nepal, there have been very few

studies conducted on undergraduate students; As a result, little research has been done on technology use in this field. Baral (2022) noted that digital divides are growing and that there is an increase in digital use; however, little information was available regarding how this affects society. From the research findings by Spiekerman et al. (2023), online social

interaction influences emotional adaptation to the surroundings to a greater extent. From the research findings, there is a difference, which presents an opportunity for further research, possibly to focus on the social connections of Nepalese undergraduate students while emphasizing the careful use of technology.

Table 1: An Overview of the Studies Reviewed for this Literature Review

Author (Year)	Research Purpose	Methodology	Research Findings	Research Limitation
Anderl, Hofer and Chen (2024)	Examine how patterns of smartphone use dramatise the connection between people	Survey Statistics	Types and quality of use on smartphones predict people's impressions of social connectedness	Little existing research on undergraduates in Nepal.
Choi, Christiaans and Duerden (2025)	Examine the impact of posting to or scrolling through social media on mental health	Survey	Extended use of screens increases anxiety and psychosocial problems	Limited evidence is available for a student population, and most evidence relates to adolescents.
Qirtas et al.(2024)	Examine whether data mining will provide an accurate prediction of loneliness	Observational study	Patterns of device use can predict loneliness	Need for more context-specific studies.
Wang, Chen and Liu (2024)	Examine how social media use relates to loneliness	Survey/ Moderation analysis	Moderate (excessive) levels of social media use will be positively related to loneliness and shyness will act as a moderator of relationship	Very limited longitudinal studies exist on this topic.
Kuss and Griffiths (2017)	Review the literature on addiction to social networking	Review of literature	Addictive behaviours related to social media negatively impact users mental health and social relationships	A need for additional research on young adults who are addicted.
Borraccino et al. (2022)	Examine the relationship between problem social media use and social support	Mixed methods, survey	Problematic social media use and limited social support both increase cyber aggression and emotional issues	Very limited research available in the university context
Caba Machado et al. (2023)	Investigate the differences between active and passive social media use and how they affect social support	Survey	The use of social media for purposeful, active participation enhances social support networks	Research should evaluate the role of culture in social media use
Przybylski and Weinstein (2017)	Examine the validity of the Goldilocks Hypothesis concerning the potential benefits or neutrality of moderate-intentional screen time use	Large-scale survey	Found very little research has been conducted with South Asian populations	Very limited research among South Asian populations

Jiang et al. (2023)	Study the relationship between online communication (social media) and psychological capital	Survey	Supportive online social interactions increase resilience within that population surveyed	Not enough evidence for this claim among undergraduate students
Kou (2024)	Examine the connection between social media practices and well-being among Nepali university students	Survey	Positive engagement via social media results in greater well-being	Limited studies examining that student population
Nagata et al. (2025)	Review on the use of social media for health purposes and survey on structured, purposeful use	Review and Survey	Structured, purposeful use of social media contributes to well-being of adolescents	Additional adolescent-specific studies needed
Younis, Khan, and Fazal (2024)	Examine how digital practices impact university student socialization	Statistical analysis	Properly engaging on social media promotes social connectedness among university students	Paucity of research conducted on this population in Nepal
Baral (2022)	Case study on the digital divide concerning online academic learning	Case study	Increase in overall digital engagement	Limited studies to support these claims
Spiekermann et al. (2023)	Examine how the types of online/ social media interactions impact emotional well-being	Survey using mixed methodology	Types of social media interactions have an impact on individuals' emotional outcomes	Limited studies on individuals living in semi-urban populations

3.METHODOS

Quantitative research was conducted in order to study the relationship between the online activities of college undergrad students and their feelings of being isolated. Quantitative method has the advantage of allowing the researchers the opportunity to investigate and analyze the data concerning an individual or a specific group of people due to the ability of the method to measure the various components of a person or a group of people.

3.1 Study design, Sample and population

A survey design was employed for this study, which focused on 261 undergraduate BBA management students from Chitwan. A convenience sampling method was used due to its practicality within the research context.

3.2 Method of data collection and analysis

The data collection process involved a structured questionnaire, which was distributed via Google

Forms by a peer from Boston International College. Additionally, the researcher encouraged fellow students to participate, increasing the sample size. The questionnaire addressed participants' digital screen time, preferred communication modes, online learning engagement, social media usage, and perceptions of social isolation. Data were analyzed using SPSS software, with descriptive statistics, correlation analysis, and binary logistic regression applied to examine the relationships between the independent variables and social isolation.

3.3 Theoretical and Conceptual Framework

Theories suggest that reduced social interactions and weaker attachments can contribute to loneliness and psychological distress. Research shows that perceived social isolation, rather than just physical social contact, negatively affects mental health, cognition, and quality of life (Cacioppo & Hawkley, 2009; Cacioppo & Cacioppo, 2014). Despite being physically or digitally surrounded by others, individuals may still feel socially isolated. Excessive

social media use and screen time have been linked to increased isolation and loneliness in young adults (Primack et al., 2017; Wu et al., 2024; Wang et al., 2024). Conversely, high-quality digital interactions and controlled screen time are associated with improved social connectedness and well-being (Nowland et al., 2018; Anderl et al., 2024). This study examines how digital behaviors, such as social media use, communication preferences, and screen time, influence social isolation among undergraduate management students in Chitwan, Nepal. We hypothesize that excessive, unsupervised digital use increases isolation, while structured, purposeful use enhances well-being (Baral, 2022; Anderl et al., 2024). This framework also explores the impact of rapid urbanization on digital habits.

4. RESULTS

Table 2: Reliability Analysis

Variables	Items	Cronbach's Alpha	Decision
Social Media Usage	6	0.911	Reliable
Digital Communication Preference	6	0.888	Reliable
Online Learning Engagement	6	0.883	Reliable
Screen Time	6	0.894	Reliable

The results of the reliability analysis indicate strong internal consistency in all four variables. Social Media Use is measured with 6 items and has a Cronbach's alpha of 0.911, suggesting very

good reliability. Digital Communication Preference (0.888), Online Learning Engagement (0.883), and Screen Time (0.894) also exceed the acceptable cutoff of .70 indicating the item consistently measures what it is intended to measure. Therefore, these results suggest the questionnaire is reliable and represents the true responses of the participants. The instruments overall are reliable and appropriate to measure the relationship between digital behavior and social isolation for undergraduate students.

Table 3: Demographic Profile of Respondents

Demographics	Categories	n	%
Gender	Male	154	59.00%
	Female	107	41.00%
Age	18-20	48	18.40%
	21-23	91	34.90%
	24-25	122	46.70%
Location	Urban	58	22.20%
	Suburban	190	72.80%
	Rural	13	5.00%
Income Level	Below 20000	75	28.70%
	21000-25000	45	17.20%
	26000-30000	37	14.20%
	Above 30000	104	39.80%
Using Social-media	Yes	253	96.90%
	No	8	3.10%

The study included 261 undergraduate management students from Chitwan, with 59% male and 41%

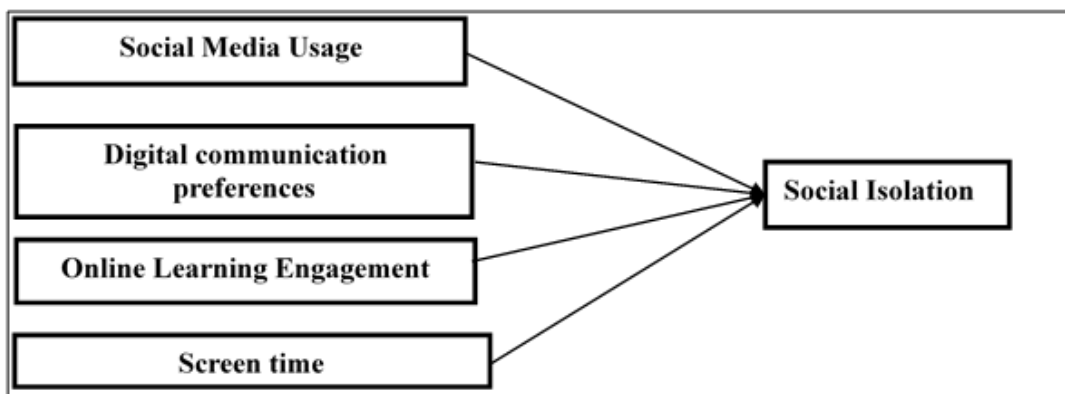


Figure 1: Conceptual Framework of Digital Behaviors and Social Isolation among Undergraduate Students



female participants. Most respondents were aged 24-25 years (46.7%), followed by 21-23 years (34.9%) and 18-20 years (18.4%). Geographically, 72.8% lived in suburban areas, 22.2% in urban areas, and 5% in rural areas. Regarding income, 39.8% earned over NPR 30,000 annually, while others earned between NPR 20,000 and 30,000. Notably, 96.9% of respondents reported using social media, highlighting its significant role in their social and digital lives.

Table 4: Descriptive Statistics [n=261]

Construct	Mean	SD
SU	3.50	0.91
DC	3.61	0.84
OL	3.65	0.78
ST	3.75	0.79

In Table 4, there are descriptive statistics most importantly mean, median, minimum & maximum, and standard deviation that summarize the independent variables used in the study: Social Media Usage (SU), Digital Communication Preference (DC), Online Learning Engagement (OL) and Screen Time (ST). Overall results show moderate to high levels of digital engagement among study participants (mean scores range from 3.50 [SU] various levels of intensity) with standard deviations indicating moderate variance across participants. This pattern indicates that large numbers of students are participating in multiple digital activities each week (each week between 3 different activities put on by their university).

Table 5: Correlation Analysis

	SU	DC	OL	ST
SU	1	0.897**	0.702**	0.601**
DC	0.897**	1	0.746**	0.675**
OL	0.702**	0.746**	1	0.841**
ST	0.601**	0.675**	0.841**	1

There was a strong positive correlation ($p < 0.01$) found between Social Media Usage (SMU), Digital

Communication Preference (DCP), Online Learning Engagement (OLE) and Screen Time (ST) based on the Pearson’s correlation analysis results. SMU had a strong correlation with DCP and moderate correlations with OLE & ST. DCP had a strong correlation with OLE and moderate correlation with ST. OLE had a strong correlation with ST. Respondents who engage in Social Media use and Digital Communication also have a greater rate of Online Learning Engagement and longer amounts of Screen Time using these Digital behaviours; therefore Digital behaviour is interrelated.

Table 6: Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
140.486 ^a	0.243	0.435

According to the Model Summary, the logistic regression has a -2 Log Likelihood value of 140.486 and a Cox & Snell R² value of 0.243 and Nagelkerke R² value of 0.435, representing a moderate fit. The model explains approximately 24% and 44% of the variance in social isolation (see Table 5).

Table 7: Binary logistic regression

Predictor	B	OR	P-value
SU	0.116	1.13	0.845
DC	0.664	1.94	0.311
OL	0.255	1.29	0.627
ST	0.984	2.68	0.021

This table evaluates whether SU, DC, OL, and ST were predictors of social isolation perceived by undergraduate students, a binary logistic regression analysis was used. There was no statistically significant relationship ($p > 0.05$) between SU, DC, and OL to social isolation. However, research findings indicated that ST was a statistically significant predictor of social isolation (B = 0.984, SE = 0.426, Wald = 5.343, $p = 0.021$). The odds ratio (Exp (B)) of 2.68 indicates that for every increase of one unit of ST, the likelihood of becoming



socially isolated will increase about 2.7 times for the individuals surveyed.

5. DISCUSSION

The results of this study reveal a significant relationship ($p < 0.05$) between increased screen time (ST) and heightened social isolation among participants. While other forms of digital engagement, such as using social media, online communication, or participating in online learning did not emerge as significant predictors of social isolation, screen time emerged as a robust predictor of social isolation within the student cohort. Specifically, students with higher levels of screen time were 2.68 times (OR = 2.68, $p = 0.021$) more likely to report experiencing social isolation compared to those with lower screen time levels.

These findings align with previous research by Anderl, Hofer, and Chen (2024), Choi, Christiaans, and Duerden (2025), and Nagata et al. (2025), which highlight that increased screen time may reduce opportunities for face-to-face interactions and the development of meaningful social relationships. Study by Valkenburg and Peter (2009). also suggest that replacing in-person contact with screen-based interactions can foster feelings of loneliness.

Further examination of current study data underscores the importance of considering the purpose and quality of digital engagement rather than merely assessing the frequency or access to screen use as a predictor of social connectedness. Passive or unstructured screen time appears to amplify feelings of loneliness, whereas Baral (2022); Huang, Ssempala, and Wang (2025), and Nowland, Necka and Cacioppo (2018) found that intentional and relational online activities are linked to enhanced social connectedness. This notion is also corroborated by Valkenburg et al. (2021), who demonstrated that the association between passive online browsing and poor well-being is stronger than that between active internet engagement and well-being. This finding challenges simplistic assumptions

about the positive impacts of social media usage. By documenting these behavioral patterns among semi-urban Nepali undergraduate students, the study extends the work of Valkenburg, Meier, and Beyens (2022), providing context-specific evidence that underscores the role of digital engagement in shaping social isolation. The practical implications of this research suggest that universities should foster a balanced and mindful approach to digital technology use, rather than outright discouraging it. However, the study's cross-sectional design and reliance on self-reported data from a single district limit the generalizability of these findings. Future research should explore longitudinal designs with more diverse samples and qualitative measures to better understand the broader social impacts of digital engagement.

6. CONCLUSIONS

Overall, the findings suggest that college students tend to experience lower levels of social isolation when they limit their screen time compared to when they engage more frequently in other forms of digital interaction. Insights into the difference between types of digital interactions show that various digital activities, including some forms of screen time, are beneficial while others are detrimental. Through this study, additional information has been added to current knowledge on the social and mental health effects of using digital media, and indicate that the purpose and use of digital media is a major criterion for measuring their social and mental health impact (Valkenburg, Meier, & Beyens, 2022).

This research has significant implications for both practice and policy in higher education and therefore, higher education institutions should develop and implement programs to teach digital literacy so that students use technology consciously, develop meaningful relationships through it, and use it in a balanced way. Instead of discouraging all forms of digital engagement, policies should be concerned with finding ways to limit excessive



forms of passive screen time and support intentional meaningful online engagement with others that adds to the quality of offline relationships (Baral, 2022; Huang, Ssempala & Wang, 2025; Qirtas et al. 2024; Wang, Chen & Liu, 2024). This research provides essential evidential support which is limited to fill an extensive research void and develop appropriate future research, education methods and policy discourse to enhance learners' social well-being. The way this research was designed also accommodates cultural variances in available literature on these topics, thus enabling cross-cultural comparisons or providing much-needed localised context.

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