



RESEARCH ARTICLE

## Social Media Dependency and Its Influence on Academic Engagement Among University Students

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### ABSTRACT

Social media has become embedded in university communication, peer interaction, information seeking, and learning, yet persistent dependence on platforms can compete with the attention and self-regulation required for academic engagement. This conceptual article examines how social media dependency influences behavioural, cognitive, and emotional engagement among university students. It integrates research on problematic social media use, multitasking, fear of missing out, attention control, psychological mediation, digital participation, and human-centred technology use. The synthesis identifies five pressures that weaken engaged learning: compulsive checking, social media multitasking, emotional preoccupation, fatigue, and blurred boundaries between academic and nonacademic connectivity. These pressures operate through attentional capture, cognitive switching costs, self-regulatory depletion, emotional mediation, platform reinforcement, and purpose of use. The analysis argues that high use should not automatically be classified as dependency because educational outcomes depend on control, timing, motivation, and task alignment. Five capability pathways are proposed: embedding digital self-regulation in learning, redesigning activities to reduce unnecessary multitasking, strengthening psychological and digital wellbeing support, establishing clear social media norms, and developing data-informed institutional governance. The article contributes a mechanism-based framework that balances the educational value of social media with the need to protect sustained academic engagement.

**Keywords:** Dependency, Engagement, Attention, Regulation, Wellbeing

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## 1. INTRODUCTION

University study now takes place within a communication environment where social media supports friendship, information seeking, entertainment, identity development, and academic coordination. The educational concern is not simply that students use social platforms frequently. It arises when their usage becomes difficult to control and competes with the sustained attention needed for reading, problem solving, discussion, and assessment. Andreassen (2015) identifies salience, loss of control, mood modification, conflict, and relapse-like behaviour as important indicators of problematic social networking. Social media dependency should therefore be viewed as a continuum of behavioural reliance rather than a label applied to every intensive user. Social platforms can still support peer communication, access to learning resources, and participation in university activities. Nevertheless, social media addiction may weaken academic engagement through psychological conditions involving self-esteem and depressive symptoms (Landa-Blanco et al., 2024). The educational problem emerges when immediate social rewards repeatedly override academic intentions and cause fragmented study, delayed task initiation, or weak persistence. Digital behaviour must therefore be considered alongside curriculum design, assessment timing, peer norms, and expectations of constant online availability. Universities should connect individual agency with learning design because students regulate their attention within environments that either protect concentration or encourage interruption. The central question is whether digitally connected environments help students sustain deliberate academic action rather than merely remain continuously reachable.

Academic engagement provides an appropriate outcome because it captures more than examination results. Engaged students demonstrate behavioural effort, cognitive investment, emotional commitment, and purposeful participation. Each dimension can be influenced differently by digital habits. Junco (2012) found that Facebook activities and usage patterns had different relationships with student engagement. This finding shows that social media use is not educationally uniform. A student who uses a messaging group to clarify an assignment may demonstrate productive digital engagement. In contrast, repeated checking during complex reading may indicate behavioural dependence that weakens concentration. Multitasking involving social media can also disrupt academic performance when students combine platform activity with demanding learning tasks (Lau, 2017). Digital participation should therefore be evaluated according to its purpose, timing, level of control, and academic consequences. Technology adoption produces value when users can align digital opportunities with their goals and capabilities (Yusof, 2025a). Students must therefore possess the judgement needed to decide when connectivity supports learning and when it displaces attention. Digital capability also involves adapting technology use to changing task and environmental demands (Yusof, 2025b). An effective educational response should preserve useful connectivity while reducing conditions that repeatedly divert students from purposeful study. Academic engagement is therefore best evaluated through participation, cognitive attention, emotional connection, and persistence rather than screen time alone.

Current scholarship increasingly rejects the simple claim that social media is either beneficial or harmful. Its effects depend on motivation, purpose of use, self-regulation, emotional state, platform design, and the intensity of multitasking. Zhao (2023) found that fear of missing out can encourage social media multitasking, increase cognitive distraction, and weaken academic performance. Students may interrupt their studies because they fear missing messages, updates, or social interaction. These interruptions can divide attention even when each period of checking is brief.

Repeated switching between social media and academic tasks can create additional mental demands and reduce the depth of information processing. Attention control mediates the relationship between social media multitasking and weaker academic performance (Kokoç, 2021). Nevertheless, social media can create learning communities, circulate educational information, and support participation when its use is aligned with learning objectives. Digital technologies can expand participation and innovation when users possess the capability to apply them strategically (Yusof, Razak, Jamaludin, et al., 2025). Students may also benefit from active learning that connects participation with purposeful academic experiences. The educational value of hands-on learning demonstrates the importance of involving students meaningfully in academic activities (Kamarudin et al., 2025). Social media dependency becomes educationally significant when habitual digital cues reorganise attention, motivation, and study routines. Its effects should therefore be evaluated through student motives, platform cues, course expectations, and the consequences of repeated interruption.

A significant conceptual gap remains between research measuring problematic social media use and research examining academic engagement as a multidimensional educational process. Many studies concentrate on screen time, addiction scores, mental health, or grades without adequately explaining how compulsive connectivity changes the behaviours through which students participate in learning. Meta-analytic evidence confirms an overall negative relationship between social networking addiction and academic achievement (Salari et al., 2025). Nevertheless, pooled effects cannot fully explain why some students maintain strong engagement despite intensive use while others experience rapid deterioration in concentration and persistence. The distinction between ordinary habit, frequent use, and dependency remains important. High usage may involve academic communication, social support, content creation, or collaborative learning rather than loss of behavioural control. Everyday digital activity among university students is embedded within broader learning routines and educational contexts (Yusof, Othman, Zaini, et al., 2025). A more integrated explanation is therefore required to connect psychological dependence, attention capture, emotional preoccupation, self-regulation, and institutional learning conditions. Behavioural control may provide a more useful indicator of academic risk than screen-time totals. This distinction is especially important in higher education because the same platform can support collaboration in one context and disrupt sustained attention in another. A mechanism-based framework is needed to explain how dependency becomes academically consequential without treating all intensive social media use as inherently problematic.

This conceptual study examines how social media dependency influences academic engagement among university students. It integrates behavioural addiction perspectives with research concerning attention control, self-regulation, emotional mediation, digital participation, and higher-education learning design. The analysis is necessary because universities increasingly depend on digitally connected students while also confronting distraction, procrastination, fatigue, and blurred boundaries between academic and nonacademic communication. The study does not assume that social media dependency produces one direct or deterministic outcome. Instead, dependency is examined through attentional capture, switching costs, self-regulatory depletion, fear of missing out, emotional strain, and reinforced checking habits. Ethical and human-centred technology design requires digital environments to be organised around human capability rather than technological availability alone (Yusof & Abd Wahab, 2021). The analysis distinguishes productive social media participation from behavioural dependency. It also identifies five contemporary pressures that

weaken academic engagement and explains the mechanisms connecting these pressures with learning. Five implementable capability pathways are subsequently proposed for universities. The intended contribution is a balanced account in which academic engagement depends on student self-regulation and the institutional design of connected learning environments. Meaningful improvement becomes possible when students recognise disruptive patterns early and apply strategies that protect sustained academic effort. Healthier digital engagement is therefore positioned as a shared capability involving student self-regulation, thoughtful pedagogy, supportive social norms, and proportionate institutional governance.

## **2.0 FOUNDATIONAL DIMENSIONS SHAPING SOCIAL MEDIA DEPENDENCY ACADEMIC ENGAGEMENT**

Understanding the influence of social media dependency requires a clear distinction between ordinary digital connectivity and behavioural reliance. Academic engagement should also be treated as a multidimensional learning outcome rather than being measured through examination performance alone. Five foundational dimensions are important: behavioural dependency, academic engagement, self-regulation, psychological drivers, and the educational utility of social platforms. Together, these dimensions explain why usage frequency alone provides an incomplete understanding of academic risk. Social media can support communication, peer learning, and access to academic information. Nevertheless, the same digital environment can weaken engagement when its use becomes compulsive, emotionally driven, or difficult to control. Dependency is therefore understood as impaired behavioural control whose educational consequences emerge through its interaction with academic tasks, student capabilities, and learning conditions.

### **2.1 Behavioural Dependency Patterns Shaping Student Digital Control**

Social media dependency can be understood as a behavioural pattern involving repeated checking, perceived urgency, difficulty disengaging, and conflict with planned academic activities. Andreassen (2015) identifies salience, mood modification, loss of control, conflict, and relapse-like behaviour as important characteristics of problematic social networking. This perspective moves the analysis beyond the amount of time spent online. The more important question is whether students retain control over when they connect, how long they remain online, and when they disengage. Notifications, social validation, personalised content, and unpredictable rewards can encourage automatic returns to digital platforms. These platform features become educationally significant when they repeatedly override students' academic intentions. Social networking dependency can involve behavioural and psychological patterns that extend beyond ordinary digital participation (Kuss & Griffiths, 2017). One student may use a platform intensively to coordinate a group project before disconnecting after completing the task. Another student may repeatedly check the same platform during individual study and struggle to return attention to the original activity. Similar levels of use can therefore produce different academic outcomes. Educational analysis should focus on behavioural control, purpose, timing, and conflict with learning responsibilities rather than classifying all frequent users as dependent.

The relationship between behavioural dependency and academic engagement is conditional rather than automatically negative. Andreassen (2015) distinguishes problematic social networking from normal and purposeful platform use. The consequences of repeated checking depend on task difficulty, platform cues, social expectations, and students' available self-regulatory resources. A

brief interruption may have limited consequences during a routine activity but become highly disruptive during complex reading or problem solving. Repeated task switching can extend study time and reduce the depth of cognitive processing. Behavioural dependency requires particular attention when online activity produces conflict, loss of control, or continued use despite harmful consequences (Kuss & Griffiths, 2017). Universities should therefore avoid relying exclusively on screen-time measures when evaluating academic risk. Students who use social platforms for learning, community participation, or peer support require different interventions from those experiencing persistent distraction. Meaningful improvement begins when students recognise disruptive patterns and apply strategies that protect sustained academic attention. Institutional practices should also reduce unnecessary digital interruptions during important learning activities. A balanced approach evaluates students' regulatory capacity alongside the learning conditions that influence their digital behaviour.

## 2.2 Multidimensional Academic Engagement Reflecting Student Learning Investment

Academic engagement includes behavioural participation, cognitive investment, emotional connection, and sustained effort. Different Facebook activities and usage patterns have been associated with different levels of student engagement (Junco, 2012). This evidence demonstrates that social media use does not produce uniform educational outcomes. Behavioural engagement includes attendance, preparation, task completion, and participation in learning activities. Cognitive engagement involves concentration, strategic thinking, and willingness to work through difficult academic material. Emotional engagement includes interest, confidence, belonging, and attachment to the learning experience. Social media dependency becomes educationally important when it weakens these dimensions rather than merely increasing device use. A student may remain physically present in class while directing attention towards repeated notifications. Another student may participate actively in an academic discussion conducted through a social platform. Ghani et al. (2025) explain that digital capability can support participation and readiness when technology is used purposefully within learning and professional contexts. Educational outcomes therefore depend on how digital activities influence preparation, persistence, discussion quality, and cognitive processing. Academic engagement should consequently be evaluated through observable learning investment rather than through device exposure alone.

A multidimensional understanding of academic engagement explains why digital connectivity can support learning in one situation and weaken it in another. Junco (2012) demonstrates that the relationship between social media use and student engagement varies according to the activity performed. Students can use online networks to exchange resources, coordinate projects, seek assistance, and maintain academic relationships. These activities may strengthen engagement when they remain connected with clear learning goals. Problems emerge when habitual checking interrupts demanding tasks or replaces purposeful academic participation. Students must therefore manage their attention, timing, and academic priorities when platform demands intensify. Digital readiness can strengthen students' ability to participate effectively in technology-supported learning environments (Ghani et al., 2025). Institutional responsibility is equally important because course communication practices can either reduce or increase digital pressure. Universities should establish coherent communication expectations, focused learning activities, and reasonable boundaries surrounding online availability. Stronger outcomes depend on students practising deliberate self-monitoring while institutions reduce avoidable digital interference. This approach preserves

academically valuable connectivity while protecting attention, emotional wellbeing, and learning persistence.

### 2.3 Self-Regulation Capacity Protecting Sustained Student Academic Attention

Self-regulation and attention control connect students' academic intentions with sustained action. Kokoç (2021) identifies attention control as an important mechanism connecting social media multitasking with academic performance. Students must manage impulses, organise study time, monitor progress, resist irrelevant cues, and recover their attention after an interruption. These capabilities become increasingly important when social media remains accessible during learning activities. A notification may trigger checking before a student consciously evaluates whether the interruption is necessary. Repeated switching can fragment concentration and delay the completion of demanding academic tasks. Weak attention control may therefore transform ordinary platform cues into procrastination, shallow cognitive processing, and inconsistent participation. Information technology capability can support stronger coordination and performance when users apply technology purposefully (Yusof et al., 2020). University students similarly require the ability to determine when technology supports an academic task and when its use should be limited. Behavioural control provides more useful information about academic risk than screen-time totals alone. The central concern is whether students can maintain their academic priorities when digital demands compete for attention.

The influence of self-regulation on academic engagement depends on the learning context and the demands placed on students. Attention control helps explain why social media multitasking produces different academic consequences among learners (Kokoç, 2021). A student may manage brief online communication during a simple task but struggle to recover concentration during complex analysis. Self-regulatory capacity can also decline because of fatigue, stress, or repeated decision-making. Students need practical strategies such as notification management, scheduled checking, focused study periods, and deliberate recovery after an interruption. Technology capability should include the ability to align digital tools with specific task requirements and performance goals. Purposeful technology application can strengthen knowledge coordination and organisational performance (Yusof et al., 2020). Universities can support this capability by designing focused learning activities and establishing clear communication norms. Academic expectations should not require students to remain constantly available across several platforms. Lecturers can also help learners understand how repeated interruptions affect task completion and cognitive depth. The educational objective is not to prohibit social media but to help students recognise when ordinary connectivity becomes a competing behavioural system that weakens academic engagement.

### 2.4 Psychological Drivers Reinforcing Compulsive Student Digital Connectivity

Psychological drivers can reinforce social media checking even when students intend to concentrate on academic work. Przybylski et al. (2013) describe fear of missing out as concern that other people may be having rewarding experiences without an individual's participation. This concern can create a continuing desire to remain connected and updated. Social comparison, anxiety, self-esteem regulation, and the need for belonging may further increase the attraction of social platforms. Immediate social information can become particularly appealing when academic tasks are uncertain, demanding, or emotionally uncomfortable. Students may use digital connectivity to escape boredom, avoid difficult work, or obtain social reassurance. Such behaviour can temporarily reduce discomfort

while delaying meaningful engagement with academic responsibilities. Social media addiction may also influence academic engagement through psychological conditions involving self-esteem and depressive symptoms (Landa-Blanco et al., 2024). Dependency therefore cannot be explained only through platform features or students' personal discipline. It develops through interactions among emotional needs, digital rewards, social expectations, and academic pressures. Universities need supportive responses that acknowledge these psychological conditions without stigmatising students.

The relationship between psychological drivers and academic engagement remains conditional. Fear of missing out is connected with the motivational and emotional conditions surrounding social participation (Przybylski et al., 2013). Students may check social media because they fear social exclusion, delayed responses, or losing access to important information. The academic consequence depends on the timing of the checking, the difficulty of the learning task, and the student's ability to disengage. Compulsive connectivity becomes especially harmful when it functions as an avoidance strategy during revision, academic writing, or problem solving. Psychological distress can strengthen problematic social media use and weaken academic participation. Evidence also connects social media addiction with reduced academic engagement through psychological difficulties experienced by students (Landa-Blanco et al., 2024). Students therefore need strategies that address both their digital behaviour and the emotions driving that behaviour. Notification control may reduce external cues, while planned communication periods may reduce anxiety about remaining unavailable. Universities should also examine whether their communication practices create expectations of immediate responses. Supportive learning environments can reduce uncertainty through clear instructions, predictable feedback, and accessible academic assistance.

## 2.5 Educational Utility Balancing Social Media Dependency Risks

The educational boundary becomes clearer when social media is recognised as a tool that can both support and disrupt university learning. Kamarudin et al. (2025) demonstrate the value of active student participation connected with purposeful learning experiences. Social platforms can distribute resources, coordinate peer activities, support group communication, and expand participation beyond scheduled class time. Nevertheless, they can also expose students to continuous notifications, social comparison, and compulsive checking. Educational outcomes therefore depend on the purpose, timing, and level of control associated with digital participation. A platform used for focused project coordination may strengthen academic participation. The same platform can weaken engagement when students remain exposed to unrelated content during individual study. Digital platforms create educational value when students use them strategically to achieve specific learning goals (Yusof et al., 2025). The central objective is not to remove social media from university learning. It is to preserve its educational utility while reducing behavioural conditions that encourage distraction, avoidance, and loss of control. Effective learning design should consequently distinguish purposeful academic participation from unstructured digital exposure.

The dependency paradox explains why social media should not be classified as entirely beneficial or harmful. Active participation can strengthen student learning when it is connected with meaningful academic experiences (Kamarudin et al., 2025). Digital platforms may therefore support engagement when learning activities have clear purposes, defined boundaries, and visible academic value. Nevertheless, the same platforms may encourage distraction when immediate social rewards

repeatedly compete with demanding learning tasks. Students require behavioural awareness and task persistence during assessment periods and collaborative academic work. Purposeful digital participation depends on students possessing the capability to align technology with relevant goals. Yusof et al. (2025) emphasise the value of strategically applying digital technology to support participation and capability development. Universities should combine student self-management with coherent communication norms and learning activities designed around focused participation. Lecturers can clarify which platforms should be used, how quickly students are expected to respond, and when digital interaction is unnecessary. Students should also learn to recognise disruptive patterns before they damage established academic routines. Healthier digital engagement requires shared responsibility between students who regulate their behaviour and institutions that shape the connected learning environment.

### **3.0 DIGITAL PRESSURES DISRUPTING SUSTAINED UNIVERSITY STUDENT ENGAGEMENT**

Five digital pressures explain how social media dependency can disrupt university learning. These pressures include compulsive checking, social media multitasking, fear of missing out, digital fatigue, and blurred boundaries between academic and nonacademic communication. They do not operate independently because their effects can accumulate across lectures, independent study, assessment periods, and social interactions. These pressures repeatedly redirect attention from demanding academic tasks and weaken students' readiness to concentrate, persist, participate, and recover from interruptions. Responses based solely on personal discipline are insufficient because digital behaviour is also shaped by platform design, peer expectations, course communication, and institutional practices. Responsibility should therefore be shared between students who regulate their social media use and universities that organise digitally connected learning environments.

#### **3.1 Compulsive Checking Fragmenting Sustained Student Academic Attention**

Compulsive checking repeatedly interrupts the sustained attention required for demanding academic activities. Notifications, anticipated messages, social feedback, and established routines can capture students' attention even when they are not actively using their devices. Zhao (2023) demonstrates that social media multitasking can create cognitive distraction and weaken academic performance. This pressure becomes stronger when academic work requires concentration, delayed gratification, or tolerance of uncertainty. Social platforms provide immediate and personalised rewards that may appear more attractive than difficult reading or writing activities. Students may briefly check a message but encounter unrelated content that extends the interruption. Each checking episode may appear insignificant, but its cumulative effect can fragment reading, reasoning, and academic writing. Repeated social media use may also contribute to fatigue and other negative psychological outcomes (Dhir et al., 2018). Students must then invest additional effort to reconstruct the context and objectives of the original academic task. Universities should preserve useful digital communication while reducing conditions that encourage constant checking. Clear communication channels, reasonable response expectations, and focused learning periods can help students protect their attention. The main educational concern is whether learners retain control over when they connect and disengage.

Universities may unintentionally normalise compulsive checking by expecting students to remain reachable through several digital channels. Dhir et al. (2018) show that compulsive social media use

can contribute to fatigue, anxiety, and psychological strain. Students may monitor learning platforms, messaging applications, email, and peer groups while attempting to complete individual academic work. Such an environment creates a conflict between immediate responsiveness and the sustained concentration required for deep learning. Existing interventions often focus on personal time management without examining communication culture, assessment clustering, or platform notifications. Students can become anxious when they believe that disconnecting may cause them to miss important social or academic information. The connection between fear of missing out and cognitive distraction demonstrates that checking behaviour develops through several interacting pressures (Zhao, 2023). A credible response should therefore combine student self-management with institutional changes. Students can schedule checking periods, disable unnecessary notifications, and establish focused study routines. Lecturers can consolidate announcements, establish reasonable response times, and avoid unnecessary communication through multiple platforms. Behavioural control is more informative than total screen time because the decisive concern is whether students can protect their academic priorities when digital demands increase.

### 3.2 Social Media Multitasking Weakening Deep Academic Processing

Social media multitasking occurs when students divide their attention between academic work and platform activity during lectures, independent study, group work, or assignment preparation. Lau (2017) found that social media multitasking can negatively influence university students' academic performance. Rapid switching may create the impression that students are managing several activities efficiently. In practice, students must repeatedly pause one task, attend to another, and reconstruct the context of the original activity. This switching process can slow task completion and weaken comprehension. The academic consequences become more serious when students read complex materials, develop arguments, or solve unfamiliar problems. Attention control plays an important role in explaining how social media multitasking affects academic outcomes (Kokoç, 2021). Students with weak attention control may experience difficulty resisting digital cues or recovering their concentration after an interruption. Educational responses should therefore help learners distinguish productive digital participation from unnecessary simultaneous activity. Academic connectivity should be preserved when it supports collaboration, communication, or access to useful information. It should be controlled when platform activity competes with the cognitive demands of a learning task. The objective is to help students sequence their attention purposefully rather than completely reject social media.

Universities can unintentionally strengthen multitasking by placing academic communication within platforms that also contain entertainment and personal content. Kokoç (2021) demonstrates that attention control mediates the relationship between social media multitasking and academic performance. Students may open a platform to access course information but then move towards unrelated messages, videos, or social content. This shift can occur automatically before students consciously evaluate the relevance of the new activity. Apparent productivity may therefore conceal shallow cognitive processing, slower task completion, and reduced academic persistence. Dividing attention during demanding learning activities can also weaken students' academic performance (Lau, 2017). Students need practical strategies such as single-task study periods, notification control, scheduled communication, and deliberate recovery after interruptions. Lecturers can support these strategies by designing activities that clearly indicate when digital interaction is required. Institutions should also avoid communication practices that encourage students to provide immediate responses

during classes or focused study. Multitasking should not be evaluated through screen-time totals alone. The central concern is whether students can arrange their digital and academic activities in ways that preserve concentration, comprehension, and learning quality.

### 3.3 Missing-Out Anxiety Intensifying Student Emotional Preoccupation

Fear of missing out can keep students emotionally connected to social media when they are attempting to concentrate on academic work. Przybylski et al., (2013) describe fear of missing out as concern that other people may be experiencing rewarding activities without an individual's participation. Uncertainty about peer activities and social belonging can make digital disengagement feel personally costly. This pressure may intensify during demanding or socially isolated periods of study. Students may remain mentally preoccupied with messages, updates, or online interactions even when they do not check their devices. Emotional preoccupation reduces the attention available for learning and may encourage avoidance of difficult academic tasks. Fear of missing out can also encourage social media multitasking and cognitive distraction (Zhao, 2023). Students may therefore interrupt revision or writing because remaining disconnected creates emotional discomfort. Effective support should help learners recognise the emotional reasons behind repeated checking. Strategies such as planned communication periods, notification management, and reassurance about delayed responses may reduce this pressure. The purpose is not to remove social connection but to help students maintain control over when it receives their attention.

Universities may contribute to missing-out anxiety when academic information is distributed unpredictably through numerous platforms. Fear of missing out can encourage multitasking behaviour that ultimately weakens academic performance (Zhao, 2023). Students may believe that disconnecting from social media could cause them to miss instructions, schedule changes, peer discussions, or academic opportunities. This concern can keep them mentally attached to digital platforms during writing, revision, or problem-solving activities. Institutional communication should therefore be clear, predictable, and limited to suitable academic channels. Students also need confidence that important academic information will remain available when they return to the platform. Fear of missing out reflects deeper motivational conditions involving belonging and social participation (Przybylski et al., 2013). Lecturers can reduce uncertainty by establishing standard communication schedules and reasonable expectations concerning response times. Students can support their own regulation through planned periods of digital connection and focused study. Effective intervention should address individual behaviour without ignoring the educational environment that sustains continuous connectivity. The decisive concern is whether students can retain control over their attention, timing, and academic priorities when emotional pressure to remain connected increases.

### 3.4 Digital Fatigue Reducing Student Cognitive Learning Readiness

Digital fatigue can reduce students' readiness to concentrate, remember information, and participate actively in learning. Dhir et al. (2018) connect compulsive social media use with fatigue, anxiety, and psychological strain. Prolonged or late-night platform engagement can extend wakefulness and make recovery time less predictable. Continuous connectivity may also maintain emotional stimulation during periods that should be used for rest. Fatigue subsequently weakens attention control, motivation, memory, and persistence. Students may attend classes but struggle to process information or participate meaningfully. They may also delay independent study because academic

tasks feel more demanding when they are tired. Smartphone addiction has been associated with stress and weaker academic performance among university students (Samaha & Hawi, 2016). Digital fatigue should therefore be evaluated through its effects on learning readiness rather than through the duration of device use alone. Universities can promote healthier digital routines without presenting all forms of technology use as harmful. Students should understand how late-night checking, emotional stimulation, and irregular sleep can influence the quality of their academic participation. Support should focus on observable loss of control and its educational consequences. Universities may unintentionally contribute to digital fatigue when students are expected to monitor academic communication outside reasonable study hours. Samaha and Hawi (2016) demonstrate that problematic smartphone use can be connected with stress and academic performance. Students may remain online because they fear missing instructions, peer requests, or changes involving group activities. This behaviour can blur the boundary between academic responsibility and continuous digital availability. Repeated engagement may then interfere with rest and reduce students' readiness for learning the following day. Social media fatigue can also develop through information overload, compulsive use, and continuous psychological demands (Dhir et al., 2018). Institutional communication practices should therefore support predictable and proportionate digital engagement. Lecturers can avoid unnecessary late-night announcements and clarify that immediate responses are not expected. Students can establish notification limits, device-free rest periods, and routines that separate academic communication from sleep. Effective intervention requires both personal regulation and supportive institutional practices. The objective is to preserve useful connectivity while ensuring that digital participation does not weaken the cognitive and emotional resources required for sustained learning.

### 3.5 Boundary Blurring Weakening Purposeful Student Digital Discipline

Blurred boundaries emerge when academic and nonacademic activities occupy the same devices, applications, and communication spaces. Technology use is embedded within students' wider behavioural and learning routines rather than operating as an isolated activity (Yusof et al., 2025). Course groups, peer messages, entertainment, promotional content, and personal networks may all appear within a single platform. Students may enter a social application for a legitimate academic purpose but remain there to consume unrelated content. This mixture makes self-monitoring more difficult because productive and distracting activities occur within the same environment. A notification may relate to coursework, friendship, entertainment, advertising, or general social activity. Students must repeatedly decide whether the information requires their immediate attention. Digital participation can support learning and innovation when students apply technology strategically (Yusof et al., 2025). Problems arise when academic communication becomes an entry point for prolonged nonacademic use. Universities should therefore clarify which platforms are used for formal learning and what response expectations apply. Stronger digital boundaries can preserve connectivity without allowing every academic interaction to expose students to unrelated platform pressures.

Institutions may unintentionally intensify boundary blurring by distributing course information through several academic and social platforms. Yusof et al. (2025) demonstrate the value of technology-supported participation when digital use is aligned with purposeful objectives. Nevertheless, students may find it difficult to distinguish required academic communication from optional social interaction. They may also feel obligated to monitor informal groups because

important information is sometimes shared only by classmates. Universities should establish reliable formal channels so students can disconnect from social media without fearing that they will miss essential academic instructions. Everyday digital mobility demonstrates that technology use cannot be separated from students' wider routines and learning contexts (Yusof et al., 2025). Students can strengthen their boundaries by using separate applications, scheduled checking periods, notification controls, and focused study environments. Lecturers can support these practices by limiting unnecessary platform duplication and avoiding expectations of continuous availability. Behavioural control remains more informative than screen time because the main concern is whether students can protect their academic priorities. Effective boundary management allows students to use social media purposefully without permitting academic connectivity to become a pathway towards persistent distraction.

#### **4.0 BEHAVIOURAL MECHANISMS CONNECTING DIGITAL DEPENDENCY STUDENT ENGAGEMENT**

Digital pressures become academically significant through mechanisms that connect social media use with attention, emotion, motivation, and habitual behaviour. Attentional capture creates immediate disruption, while reduced self-regulatory capacity can transform brief distractions into prolonged academic avoidance. Emotional mediation explains why students may use social platforms to manage anxiety, loneliness, or academic stress. Platform reinforcement further encourages repeated checking by providing personalised content and unpredictable social rewards. Nevertheless, the purpose of social media use determines whether digital participation supports academic activities or competes with them. These mechanisms explain why screen time alone cannot accurately identify dependency or academic risk. Students may spend similar amounts of time online but experience considerably different levels of behavioural control and academic disruption. Academic engagement should therefore be viewed as a dynamic outcome shaped by student agency, psychological needs, platform features, and the organisation of university learning.

##### **4.1 Attentional Capture and Academic Cognitive-Switching Costs**

Attentional capture explains how social media dependency can fragment students' academic engagement. Notifications, personalised recommendations, and socially relevant updates often gain immediate priority because they provide faster rewards than demanding academic tasks. Zhao (2023) identifies social media multitasking as a pathway through which fear of missing out increases cognitive distraction and weakens academic performance. Once students shift their attention, they must reconstruct the goals, instructions, and conceptual context of the original task. This process creates a cognitive-switching cost even when the interruption lasts only a few seconds. Repeated switching can reduce comprehension, weaken memory formation, and increase the time required to complete academic activities. Students may remain physically present in class or spend several hours studying while achieving limited cognitive engagement. The academic effect therefore depends less on the visible duration of study than on the continuity and depth of attention. Social media becomes especially disruptive when its cues compete directly with reading, writing, problem solving, or classroom discussion. Nevertheless, the same platforms may support learning when they are intentionally used for academic communication and group coordination. The main concern is whether students retain control over when, why, and how their attention shifts.

Attentional disruption can develop into a feedback cycle that gradually weakens academic confidence. Each interruption slows progress and can make an already difficult task appear more demanding. Students may then become frustrated, seek further digital relief, and experience greater difficulty returning to focused academic work. Multitasking during learning activities has been associated with poorer academic performance because attention is repeatedly divided between unrelated demands (Lau, 2017). Occasional interruptions may have limited consequences, but frequent and emotionally rewarding interruptions can establish persistent patterns of fragmented engagement. These patterns affect more than task completion because they can also reduce persistence, increase mental fatigue, and weaken students' confidence in their academic ability. Effective responses should therefore address personal checking habits and the learning conditions that make distraction attractive. Students can protect their concentration by controlling notifications, separating academic and recreational applications, and scheduling specific periods for online communication. Universities can support these practices through clear communication expectations and learning activities that require focused participation. Lecturers should also avoid distributing essential information across numerous digital platforms because fragmented communication encourages repeated checking. Sustained attention consequently depends on students regulating their behaviour and institutions creating coherent digital learning environments.

#### 4.2 Self-Regulatory Depletion and Student Procrastination Cycles

Self-regulatory depletion explains how brief social media checking can develop into prolonged academic avoidance. Students frequently encounter assignments that are difficult, unclear, or associated with delayed rewards. When a task creates discomfort, social media provides immediate stimulation and temporary psychological relief. Kokoç (2021) demonstrates that attention control mediates the relationship between social media multitasking and academic performance. Students who repeatedly redirect their attention must use additional mental effort to resist digital cues and resume academic work. As this effort accumulates, their capacity to maintain goals, organise behaviour, and tolerate difficulty may decline. A short digital break can then become an extended period of scrolling, messaging, or content consumption. The delayed academic task creates guilt and time pressure, which may further increase the desire to escape through digital activities. Dependency becomes self-reinforcing because academic discomfort encourages checking, while checking increases the academic pressure that originally caused avoidance. Procrastination should therefore not be interpreted only as weak time management. It may also result from the interaction between emotional discomfort, reduced behavioural control, immediate digital rewards, and poorly structured academic tasks. Behavioural control is consequently more informative than the total amount of time students spend online.

Procrastination cycles are influenced by personal strategies and the conditions created within the learning environment. Students are more likely to avoid assignments when instructions are unclear, deadlines appear distant, or academic progress is difficult to evaluate. Dividing demanding assignments into manageable stages can reduce uncertainty and provide more immediate evidence of achievement. Feedback, interim deadlines, and clear learning goals may also make academic participation more rewarding than digital escape. Yusof and Razali (2020) explain that behavioural and contextual factors influence how individuals interact with technology. Students nevertheless require practical strategies for recognising the early stages of procrastination. These strategies may include setting specific study intentions, using scheduled periods of focused work, removing

unnecessary digital cues, and recording the situations that trigger compulsive checking. Universities should complement these practices with coherent assessment schedules and realistic digital communication expectations. Continuous online availability should not be treated as evidence of academic commitment because it can blur the difference between productive participation and compulsive connectivity. Sustainable engagement emerges when students can regulate their behaviour without carrying the entire burden of managing fragmented learning systems. Stronger academic outcomes therefore require student self-management, supportive course structures, and predictable communication practices.

#### 4.3 Emotional Mediation and Student Academic Engagement

Emotional mediation explains how social media dependency influences academic engagement through anxiety, self-esteem, and the need for belonging. Social platforms can provide reassurance, social connection, and temporary relief from academic stress. Nevertheless, repeated comparison, perceived exclusion, and pressure to remain responsive may increase emotional vulnerability. Landa-Blanco et al. (2024) connect social media addiction with weaker academic engagement through psychological mechanisms involving self-esteem and depressive symptoms. Students who become preoccupied with social feedback may have fewer emotional resources available for academic participation. Negative online experiences can reduce confidence, while the absence of expected responses may produce worry or feelings of rejection. These emotional reactions can continue after students leave the platform and interfere with concentration during lectures, reading, or assessment preparation. Academic withdrawal may subsequently reinforce feelings of inadequacy when students fall behind or perform below their expectations. Social media use becomes academically damaging when emotional dependence displaces sustained attention and academic confidence. The important question is not merely how frequently students access a platform, but whether their emotional state becomes dependent on social feedback. Universities should recognise this distinction because intensive but controlled use is different from emotionally dependent behaviour.

The relationship between emotional wellbeing and academic engagement is often reciprocal. Students experiencing anxiety, loneliness, or weak academic confidence may seek social media for comfort and social connection. Temporary relief can reinforce repeated checking, even when continued use later increases comparison, fatigue, or emotional distress. Problematic social media use can interact with psychological conditions in ways that influence students' educational experiences (Mou et al., 2024). Declining academic progress may then intensify stress and encourage further dependence on immediate social reassurance. Effective interventions should therefore address students' emotional needs alongside their digital behaviour. Simply instructing students to reduce screen time may be ineffective when social media functions as their primary source of belonging or emotional support. Universities can provide alternative forms of connection through peer mentoring, accessible counselling, inclusive classroom practices, and supportive student communities. Students can also learn to recognise emotional triggers and distinguish purposeful communication from repeated reassurance-seeking behaviour. Lecturers should establish communication norms that do not require students to remain continuously responsive outside scheduled learning periods. These measures can preserve the social and educational benefits of digital connectivity while reducing pressure for constant availability. Healthier academic

engagement becomes more achievable when students possess both emotional support and practical control over their digital routines.

#### 4.4 Platform Reinforcement and Habitual Digital Engagement

Platform reinforcement explains why social media checking can continue even when students intend to concentrate on academic work. Many platforms use infinite scrolling, personalised recommendations, notifications, and variable social rewards to encourage repeated interaction. These features remove natural stopping points and make the duration of digital use difficult to predict. Andreassen (2015) identifies salience, mood modification, loss of control, conflict, and relapse-like behaviour as important characteristics of problematic social networking use. Repeated exposure to rewarding digital cues can gradually shift platform use from a deliberate decision to an automatic response. Students may unlock their devices or open applications without forming a clear intention to do so. This automatic behaviour makes motivational advice insufficient because the surrounding digital environment continuously reinforces checking. Telling students to exercise greater discipline does not remove the platform cues that repeatedly trigger their behaviour. More effective responses involve changing the conditions in which habitual use occurs. Students can disable nonessential notifications, remove distracting applications from prominent screen positions, and establish device-free periods for demanding academic work. These adjustments increase the effort required to access social media and provide students with an opportunity to reconsider their actions. Behavioural awareness can therefore help students regain deliberate control over digital engagement.

Platform reinforcement can shape student participation and decision-making beyond the immediate act of checking. Personalised content continuously adapts to users' behaviour, making digital engagement increasingly relevant and difficult to interrupt. Yusof et al. (2025) demonstrate that digital environments can influence how individuals interact with information and make behavioural choices. Universities should therefore recognise platform design as part of the educational environment rather than treating it as a neutral background condition. Course communication practices may unintentionally strengthen habitual checking when important announcements appear unpredictably across multiple platforms. Institutions can reduce this pressure by using consistent channels, predictable posting schedules, and clear response expectations. Students also require digital literacy that explains how interface features, recommendation systems, and variable rewards influence habitual behaviour. Online information and review perceptions can influence the spending behaviour of younger users, demonstrating the wider behavioural power of digital platforms (Zaini et al., 2026). Recognising these structural influences does not remove students' personal responsibility. Instead, it provides a more realistic explanation of why certain digital habits are difficult to change. Sustainable improvement requires personal self-management, thoughtful institutional communication, and learning environments that protect periods of focused academic participation.

#### 4.5 Purpose of Use as a Moderator of Academic Effects

The purpose of social media use helps explain why intensive platform engagement does not always produce weak academic outcomes. Students may use social media to coordinate assignments, exchange explanations, locate educational materials, develop professional networks, or participate in university communities. These activities can support engagement when they are intentional,

relevant, and limited to clear academic purposes. Junco (2012) found that different patterns of Facebook use were associated differently with student engagement, demonstrating that platform activities do not produce uniform educational effects. A similar amount of social media use may therefore produce different outcomes depending on its purpose, timing, and relationship with academic goals. Messaging classmates to clarify an assignment can reduce uncertainty and encourage participation. In contrast, checking unrelated content during complex reading can interrupt comprehension and increase the time required to complete the task. The distinction between productive and disruptive use cannot be established through screen-time totals alone. Evaluation should consider whether students retain control, whether the activity supports a specific goal, and whether it occurs during cognitively demanding work. Negative academic effects are more likely when use becomes compulsive, emotionally driven, or disconnected from learning objectives. Purposeful use can support education, but beneficial intentions do not automatically prevent digital distraction.

The educational effect of purposeful use also depends on how digital participation is organised within the learning environment. An academically relevant activity may still become disruptive when students encounter unrelated notifications, recommendations, or conversations while completing it. Students may initially access a platform for a course discussion before unintentionally moving towards recreational content. Digital participation creates educational value when learners can align technological opportunities with the requirements of a specific task (Yusof et al., 2025). Students therefore need to monitor why they enter a platform and whether their subsequent behaviour remains consistent with that purpose. Practical strategies include defining an intended outcome before opening an application, limiting the duration of access, and closing the platform after completing the task. Universities can reinforce purposeful use by selecting suitable communication channels and avoiding unnecessary dependence on commercial social platforms. Academic activities should clearly explain why social media is being used and what students are expected to accomplish through it. Such an approach preserves opportunities for collaboration, peer support, and access to educational materials while reducing exposure to competing digital cues. The decisive concern is whether students can maintain control over their attention, timing, and academic priorities. Social media supports engagement when it remains a tool for learning rather than becoming an environment that determines student behaviour.

## **5.0 INSTITUTIONAL CAPABILITIES SUPPORTING HEALTHIER STUDENT DIGITAL ENGAGEMENT**

Effective responses should strengthen the capacity of students and institutions to manage connected learning rather than depend on prohibition. Five institutional pathways are important: digital self-regulation, learning design that reduces unnecessary multitasking, psychological and digital wellbeing support, clear academic communication norms, and data-informed governance. Each pathway combines individual capability with environmental design because digital dependency develops within systems of cues, expectations, social rewards, and academic demands. The strategic objective is to preserve the collaborative and informational benefits of social media while reducing patterns that weaken concentration, persistence, wellbeing, and meaningful participation. Implementation should remain educational, proportionate, transparent, and adaptable as digital platforms and student practices evolve. Behavioural control should receive greater attention than screen-time totals when universities evaluate academic risks related to social media dependency.

### 5.1 Digital Self-Regulation Building Sustainable Student Learning Habits

Universities can strengthen digital self-regulation by integrating it into university learning rather than treating it as a private lifestyle matter. The purpose is not to remove social media from student life but to help students use connected technologies without sacrificing sustained academic engagement. Students can learn to identify behavioural triggers, establish notification rules, create focused study periods, monitor platform use, and plan intentional reconnection. Kokoç (2021) demonstrates the importance of attention control in protecting academic performance from the effects of social media multitasking. These practical skills can help students recognise when ordinary connectivity begins to interfere with concentration, persistence, and task completion. Digital self-regulation should be introduced through student orientation, academic courses, study-skills programmes, and university support services. Human-centred digital practices can strengthen students' ability to use technology responsibly within different learning conditions (Yusof et al., 2025). Curricular integration can normalise attention management as an academic capability rather than presenting it as a response to personal failure. Support should remain proportionate because frequent use alone does not establish dependency. Intervention becomes necessary when students experience loss of control, persistent distraction, conflict with academic responsibilities, or declining wellbeing. Meaningful improvement occurs when learners recognise disruptive patterns early and apply practical strategies that protect sustained academic effort.

The institutional value of digital self-regulation depends on consistent implementation across academic programmes and student services. Isolated workshops are unlikely to change behaviour when course communication, assessment patterns, and peer expectations continue to reward constant responsiveness. Universities should therefore examine whether their own practices make digital disengagement unnecessarily difficult. Students can be encouraged to schedule communication periods, disable nonessential notifications, and separate demanding academic activities from recreational platform use. Yusof et al. (2025) support the importance of designing technological practices around human needs and responsible participation. These strategies should be reinforced through clear course expectations and learning activities that protect focused attention. Progress can be assessed through student feedback, engagement indicators, course reviews, and non-intrusive measures of perceived digital control. Attention control remains important because repeated platform switching can reduce the quality of students' academic performance (Kokoç, 2021). Institutions should avoid monitoring personal accounts because such surveillance can undermine privacy and student trust. The goal is to understand whether university practices reduce unnecessary attentional pressure while preserving useful digital connectivity. Sustainable learning habits emerge when students possess practical self-regulation skills and institutions create conditions that support their consistent application.

### 5.2 Learning Design Systematically Reducing Student Multitasking Pressures

Universities can reduce multitasking pressures by designing learning activities that do not require students to switch continuously between platforms and tasks. Clear communication channels, predictable response expectations, focused class activities, and carefully sequenced assessments can reduce the perceived need for constant monitoring. Kamarudin et al. (2025) demonstrate that purposeful and active participation can strengthen university students' learning experiences. Learning design should therefore direct students' attention towards activities with visible academic

value. Digital interaction should be included when it supports collaboration, feedback, access to information, or meaningful participation. It should not be added merely because a platform is available. Students may experience unnecessary cognitive pressure when instructions, resources, discussions, and announcements are distributed across several systems. Human-centred technology practices can help institutions align digital tools with the capabilities and needs of their users (Yusof & Abd Wahab, 2020b). Lecturers should clearly indicate when digital participation is required and when students should concentrate on a single academic task. This approach helps students organise their attention without rejecting the educational value of technology. Effective learning design protects concentration while retaining social media and digital tools where they provide genuine collaborative or informational benefits.

Consistency across courses is essential because students may experience conflicting digital expectations within the same programme. One lecturer may encourage focused participation, while another may expect immediate responses through several communication channels. Such inconsistency can make it difficult for students to establish stable study routines. Yusof and Abd Wahab (2020b) emphasise the importance of aligning technological practices with human and organisational requirements. Universities can support this alignment through common communication guidelines, coordinated assessment schedules, and staff development in digital learning design. Students should also receive sufficient time to complete activities that require deep reading, analysis, or reflection. Purposeful hands-on learning can strengthen participation when students understand the value and expected outcome of each activity (Kamarudin et al., 2025). Learning analytics may help identify activities associated with low participation or excessive switching, but the information should be used ethically. Lecturers can also gather direct student feedback about digital workload and communication pressure. Stronger academic outcomes emerge when students manage their attention deliberately and institutional practices reduce avoidable digital interference. The central objective is to create learning environments in which technology supports academic concentration rather than continually competing with it.

### 5.3 Psychological Support Strengthening Student Digital Wellbeing Capacity

Universities should strengthen psychological support for students whose social media dependency is connected with anxiety, loneliness, low self-esteem, or emotional avoidance. Support services should connect digital habits with broader concerns involving coping, belonging, sleep, confidence, and help-seeking. Landa-Blanco et al. (2024) show that social media addiction can influence academic engagement through psychological conditions involving self-esteem and depressive symptoms. Digital dependency should therefore not be presented only as a problem of weak discipline. Some students may use social platforms to escape academic stress or obtain immediate emotional reassurance. Temporary relief may reinforce repeated checking even when continued use later increases distraction or psychological strain. Human-centred institutional practices should respond to these emotional conditions without blaming or stigmatising students (Abd Wahab & Yusof, 2020). Counselling services can include questions about digital routines when discussing stress, sleep, procrastination, or academic withdrawal. Peer-support programmes may also provide healthier sources of connection and belonging. Early assistance can prevent disruptive habits from developing into persistent patterns that weaken learning and wellbeing. Effective support should help students identify the emotional triggers behind their digital behaviour and develop alternative coping strategies.

Psychological and digital wellbeing support should be consistently available across academic programmes and student services. Isolated awareness campaigns are unlikely to produce lasting improvement when students continue to experience intense academic pressure and expectations of constant availability. Institutions should ensure that students know how to access counselling, peer assistance, study support, and emergency services. Abd Wahab and Yusof (2020) emphasise the value of institutional practices that consider human capability and wellbeing. Lecturers can contribute by providing clear instructions, predictable feedback, reasonable deadlines, and supportive communication. These practices reduce uncertainty that may otherwise encourage avoidance and compulsive checking. Problematic social media use may become more harmful when psychological distress reduces students' confidence and academic participation (Landa-Blanco et al., 2024). Support should consequently address emotional wellbeing and academic engagement as connected concerns. Students can be encouraged to recognise when social media is being used for productive communication and when it functions mainly as emotional escape. Universities should preserve student privacy and avoid labelling every intensive user as dependent. Stronger digital wellbeing develops when students receive practical assistance, emotional support, and learning conditions that reduce unnecessary psychological pressure.

#### 5.4 Academic Norms Clarifying Responsible Student Social Media Use

Universities should establish clear and realistic norms for social media use in academic settings. Lecturers should clarify response times, acceptable classroom use, group communication expectations, privacy boundaries, and the purpose of platform-based activities. Yusof and Abd Wahab (2020a) emphasise that ethical and human-centred considerations should guide the implementation of technology. Explicit norms can help students distinguish academically necessary connectivity from optional or distracting engagement. Students should not have to monitor numerous platforms because they are uncertain where important course information will appear. Each course should identify a primary channel for formal announcements, learning resources, and assessment instructions. Responsible digital practices are strengthened when institutional expectations remain clear, consistent, and sensitive to user needs (Yusof et al., 2026). Universities should also clarify that students are not normally required to provide immediate responses outside reasonable academic hours. These boundaries can reduce anxiety and protect periods intended for focused study or rest. Digital norms should be explained as shared expectations rather than rules imposed only on students. Lecturers and administrators must also model responsible communication through predictable and proportionate digital practices.

The effectiveness of academic norms depends on consistent application across programmes and university services. Policies will have limited value when lecturers, administrators, and student groups communicate through conflicting channels or apply different response expectations. Yusof et al. (2026) demonstrate the importance of connecting responsible organisational practices with human-centred implementation. Universities can develop common guidelines while allowing lecturers sufficient flexibility to meet the needs of particular courses. Students should also participate in discussions about communication practices because they experience the combined digital demands created by different subjects. Clear boundaries can reduce ambiguity without removing opportunities for online collaboration and peer assistance. Ethical technology management requires institutions to balance operational convenience with human needs and responsible conduct (Yusof & Abd Wahab, 2020a). Academic norms should also address privacy, respectful communication,

appropriate group behaviour, and the sharing of course information. Periodic reviews can determine whether existing expectations remain suitable as platforms and student practices change. Meaningful improvement occurs when students understand which digital activities are required, when responses are expected, and when they can disconnect without academic disadvantage.

### 5.5 Data-Informed Governance Strengthening Institutional Digital Wellbeing Practices

Universities can strengthen digital wellbeing through governance that treats student attention as an important educational resource. Institutional decisions can draw on student feedback, learning analytics, wellbeing indicators, course-design reviews, and periodic evaluations of digital communication practices. Yusof (2026) emphasises the importance of responsible capability development within technology-supported environments. Governance should focus on identifying institutional patterns rather than monitoring individual students' private social media activities. Universities can examine whether particular programmes involve excessive digital workload, duplicated communication, or unrealistic expectations of continuous availability. Digital capability can support effective participation when technology is aligned with students' learning and professional requirements (Ghani et al., 2025). Data collection should remain transparent, proportionate, and directly connected with educational improvement. Students should know what information is collected, how it is used, and how their privacy is protected. Institutional reviews can also examine whether digital platforms create barriers for students with limited connectivity or different accessibility needs. Data-informed governance becomes valuable when evidence leads to practical improvements in learning design, communication practices, and student support. Its purpose is to create healthier connected learning environments rather than introduce intrusive surveillance.

Sustained governance requires coordination across academic departments, student services, information technology units, and university leadership. Digital wellbeing should not be treated as the responsibility of a single department because communication and platform decisions affect students across the institution. Ghani et al. (2025) demonstrate that digital capability can strengthen participation and readiness when it is supported by suitable institutional conditions. Universities can establish regular reviews of student digital workload, platform duplication, learning analytics, and communication expectations. These reviews should include student perspectives because institutional data may not fully capture the psychological experience of constant connectivity. Responsible governance should also distinguish between productive digital participation and behavioural dependency. Ethical technology practices require institutions to balance technological opportunities with human needs and long-term educational outcomes (Yusof, 2026). Intervention should focus on patterns of impaired control, declining engagement, and deteriorating wellbeing rather than screen time alone. Universities should revise their practices when evidence shows that digital arrangements create avoidable distraction or emotional pressure. Effective governance strengthens shared responsibility by helping students regulate their behaviour while ensuring that institutional systems support concentration, participation, and wellbeing.

## 6.0 CONCLUSION

Social media dependency should be understood as an educationally significant pattern of impaired behavioural control rather than simply frequent platform use. Dependency influences academic engagement when digital rewards repeatedly compete with the attention, motivation, and emotional

resources required for purposeful learning. Social media can still support peer communication, resource exchange, identity development, and academic coordination. The decisive concern is whether students can use these functions intentionally and disengage when learning requires sustained concentration. Academic engagement therefore depends on a balance between digital connectivity and behavioural control. This perspective moves the debate beyond total screen time towards the purpose, timing, quality, and controllability of platform use. Students experience greater academic risk when habitual checking, multitasking, emotional preoccupation, and digital fatigue repeatedly interfere with reading, writing, problem solving, and classroom participation. Social media dependency is consequently a loss-of-control problem whose academic effects develop through attention, emotion, behavioural routines, and the organisation of connected learning environments.

Responsibility for healthier digital engagement cannot be placed entirely on students. Platform design, institutional communication, assessment pressure, peer expectations, and the emotional demands of university life influence whether self-regulation succeeds or fails. Universities therefore have an educational responsibility to develop students' digital self-regulation, reduce unnecessary multitasking pressure, strengthen psychological support, and establish clear communication norms. They should also evaluate whether their own digital practices encourage students to remain continuously available. These measures do not require surveillance, punishment, or complete restrictions on social media use. They require learning environments that make focused study practical, socially acceptable, and compatible with contemporary student life. Students should receive practical support in managing notifications, organising focused study periods, recognising emotional triggers, and separating academic communication from recreational platform use. Institutional responsibility involves creating digital learning conditions that protect sustained attention while preserving the collaborative and informational benefits students obtain from social media.

The framework contributes by connecting social media dependency with academic engagement through clear behavioural, cognitive, and emotional mechanisms. Future research should examine these relationships across disciplines, student groups, cultures, platform types, and stages of university study. Longitudinal research would be valuable for determining whether dependency leads to declining engagement, develops in response to academic pressure, or operates through reciprocal cycles. Further investigation is also needed to identify interventions that improve digital control without reducing access, belonging, or productive collaboration. As social platforms continue to evolve, the main challenge is not to separate students from digital life. The challenge is to ensure that digital connectivity does not continuously displace the attention and personal agency required for higher education. Academic engagement becomes more sustainable when connectivity remains a tool that students can control rather than a behavioural demand that controls them. Healthier digital participation therefore requires shared responsibility between students who regulate their behaviour and universities that design supportive connected learning environments.

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### 2. Conflict of Interest

The authors declare that they have no financial, professional, personal, or institutional interests that could have influenced the conceptual development, interpretation, or presentation of this article. No competing interests exist that could reasonably be perceived as compromising the objectivity, academic integrity, or scholarly independence of the work.

### 3. Author Contribution Statement

Mohamad Nizam Adhaa Kamarudin: Conceptualization, development of the research focus, literature review and synthesis, analysis of social media dependency and academic engagement, development of the conceptual arguments, preparation of the original manuscript, and manuscript revision.

Mohd Zuri Ghani: Conceptual development, theoretical interpretation, refinement of the educational and student engagement perspectives, scholarly validation, critical review, supervision, and manuscript editing.

Both authors contributed substantially to the intellectual development, conceptual coherence, and scholarly quality of the article. Both authors critically reviewed the manuscript, contributed to its refinement, and approved the final version for publication.

### 4. Ethics Statement

This article is a conceptual study based exclusively on published scholarly literature and secondary academic sources. It did not involve human participants, surveys, interviews, experiments, interventions, or the collection of personal, confidential, or identifiable data. Consequently, institutional ethical approval and informed consent were not required. The study was conducted in accordance with established principles of academic integrity, responsible scholarship, and ethical research practice. All scholarly ideas, theoretical perspectives, and published evidence incorporated into the analysis were appropriately acknowledged through citation. The authors accept responsibility for the accuracy, transparency, intellectual integrity, and scholarly quality of the work.

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