Journal of Information System and Technology Management
JISTM
EISSN: 0128-1666
Volume 11 Issue 44 (September 2026) PP. 340-360


**JOURNAL OF INFORMATION SYSTEM AND TECHNOLOGY MANAGEMENT (JISTM)**
www.gaexcellence.com/jistm

# BEYOND SCREEN TIME: DIGITAL DEVICE USE, ADDICTION AWARENESS, AND SELF-REGULATION AMONG MALAYSIAN YOUTH

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**Article Info:**

**Article history:**
Received date: 21.07.2026
Revised date: 09.08.2026
Accepted date: 20.08.2026
Published date: 17.09.2026

**To cite this document:**

Lee, J. Y., Chin, Y. M., & Yong, X. Y. (2026). Beyond Screen Time: Digital Device Use, Addiction Awareness, And Self-Regulation Among Malaysian Youth. *Journal of Information System and Technology Management, 11* (44), 340-360.

**Abstract:**

This article examines digital device use, addiction awareness, and self-regulation among youth in Malaysia through a structured cross-sectional online survey of 528 respondents aged 16–30, recruited using non-probability convenience sampling. The study does not assume that long screen time, by itself, indicates digital addiction. Instead, screen exposure is read alongside purpose of use, perceived risk, behavioural control, and negative consequences. Some 88.07% of respondents reported five or more hours of daily screen use, with smartphones and laptops forming the core of their digital routines. Communication and information search were the leading purposes of use, indicating that much of this engagement was functional and embedded in everyday activities. More than 82% associated digital addiction with an inability to leave screens, while 82.01% understood healthy screen use as balancing digital engagement with other activities. Self-regulation was less consistent: respondents valued balance and prioritisation, yet delayed bedtime, frequent checking, and difficulty reducing screen time remained evident. These patterns do not establish whether respondents were addicted; rather, they show why high screen exposure needs to be interpreted together with behaviour, perceived control, purpose, and consequences. On this basis, the article proposes a conceptual distinction among digital necessity, functional dependency, and digital addiction.

Journal of Information System and Technology Management
JISTM
EISSN: 0128-1666
Volume 11 Issue 44 (September 2026) PP. 340-360

**DOI:** 10.35631/JISTM.1144020 **Keyword:**

Digital Addiction; Digital Well-Being; Malaysian Youth; Self-Regulation; Screen Time.



## Introduction

Digital devices are now part of the everyday infrastructure of youth life, rather than simply optional tools for communication or entertainment. For many young people, smartphones, laptops, and other connected devices are woven into learning, work, social interaction, information retrieval, leisure, and everyday coordination. In this setting, longer screen time cannot be explained only as a matter of personal preference, weak discipline, or poor self-control. It also reflects the way contemporary education, communication, social participation, and access to information are increasingly organised through digital platforms. The more useful question, then, is not simply how many hours young people spend on screens, but what those hours represent. High screen exposure may signal risk in some circumstances, but it can also arise from the practical demands of study, communication, information access, and daily life management.

Public discussion of digital addiction often starts from a narrower premise: that long hours of screen use are, by themselves, evidence of addiction. Such a view reduces a complex behavioural and psychosocial issue to a single quantitative indicator. Behavioural addiction research generally does not define addiction by duration alone. Griffiths' components model, for example, identifies a cluster of features—salience, mood modification, tolerance, withdrawal, conflict, and relapse (Griffiths, 2005). The World Health Organization takes a similar approach in its ICD-11 definition of gaming disorder, which focuses on impaired control, increasing priority given to gaming over other activities, and continuation or escalation despite negative consequences (World Health Organization, 2020). Gaming disorder is not the same as digital addiction in general, but its diagnostic logic is useful here: problematic digital behaviour involves more than frequent or prolonged use and must also be considered in relation to control, displaced priorities, and significant negative consequences.

That distinction matters because intensive digital use is not necessarily addictive. A student may spend many hours online attending classes, searching for information, completing assignments, communicating with peers, and managing daily responsibilities without showing the same pattern as someone who continues compulsive digital engagement despite persistent harm. Kardefelt-Winther (2016) argues that internet use disorders should not be viewed only through an addiction lens, since excessive internet use can also reflect coping processes, social needs, or contextual pressures. Orben and Przybylski's (2019) large-scale study likewise found that the association between digital technology use and adolescent well-being was statistically detectable but small, which calls for caution when making strong claims about screen-related

harm. These arguments do not suggest that problematic digital use is unimportant. Rather, they point to the need to separate digital use, digital dependency, digital necessity, and digital addiction more carefully.

Against this background, the article examines digital device use, addiction awareness, and self-regulation among Malaysian youth. Malaysia offers a useful empirical setting because youth digital behaviour takes place within high levels of mobile connectivity, multilingual and multiethnic social environments, and the growing use of digital tools in education and everyday life. The article draws on a structured cross-sectional online survey conducted by members of the original research team under the Tun Tan Cheng Lock Institute of Social Studies, Universiti Tunku Abdul Rahman, in collaboration with the Academy of Contemporary Islamic Studies, Universiti Teknologi MARA Perlis. A total of 528 valid responses were obtained from respondents aged 16 to 30 through non-probability convenience sampling. Selected descriptive findings were first reported in an institutional publication for public and policy communication. The present article develops those findings into a journal-oriented academic analysis by placing them within debates on screen time, digital addiction, digital necessity, and self-regulation.

The survey points to substantial screen use among Malaysian youth. Most respondents reported five or more hours of screen use per day, with smartphones and laptops forming the core of their daily digital routines (Tan et al., 2024). Yet the same data show that device use was not centred mainly on entertainment, gaming, or online shopping. Communication and information search were the most prominent purposes, followed by entertainment and social interaction, while gaming and online shopping were less common (Tan et al., 2024). Read in this way, digital devices appear to function as practical tools for study, communication, and everyday information needs. The issue is therefore not only how much time is spent on screens, but how screen time relates to purpose of use, perceived risk, and the ability to regulate digital behaviour.

The article adds to the discussion by interpreting these descriptive patterns rather than simply restating them. In particular, it considers purpose of use, perceived risk, behavioural control, and negative consequences together and, on that basis, proposes a distinction between digital necessity, functional dependency, and digital addiction. The study makes an empirical contribution by presenting survey-based evidence on Malaysian youth digital device use, addiction awareness, and perceptions of healthy screen use. Its conceptual contribution is to clarify why high screen time is not, on its own, a sufficient measure of digital addiction. The practical contribution follows from this distinction: youth digital well-being initiatives may be more useful when they strengthen self-regulation and digital health literacy rather than focusing only on reducing screen time. The article therefore moves the discussion beyond a single screen-time measure toward a more differentiated understanding of youth digital behaviour.
Accordingly, this article asks three research questions.

- First, what are the main patterns of digital device use among Malaysian youth?
- Second, how do Malaysian youth understand digital addiction and healthy screen use?
- Third, to what extent does self-regulation help distinguish high screen use from digital addiction?

Taken together, these questions shift attention away from duration alone. The article treats high screen exposure as something that needs to be read alongside behavioural patterns, perceived control, purpose of use, and negative consequences before conclusions about digital addiction

are drawn. Youth digital behaviour is therefore examined through the interaction of duration, purpose, risk awareness, signs of problematic dependency, and the capacity for self-regulation. The remainder of the article develops this argument in stages. The next section reviews research on digital addiction, screen time, functional digital use, and self-regulation. The methodology section then describes the survey design, respondent profile, measures, analytical approach, and study limitations. The findings section presents the main patterns of device use, addiction awareness, understanding of healthy screen use, and selected signs of problematic use. These findings are then discussed through the distinction between digital necessity and digital addiction and in relation to wider debates on digital well-being. The conclusion draws together the study's contribution and considers implications for youth education, digital health literacy, and future research.

## Literature Review and Conceptual Framework

Digital addiction remains a contested concept, partly because it brings together ideas from behavioural addiction, media use, mental health, technological dependence, and everyday social practice. It does not refer neatly to one clearly bounded disorder; instead, the term is often used for a range of compulsive, excessive, or poorly regulated forms of engagement with digital devices, platforms, and applications. Studies of internet addiction, problematic internet use, and related behavioural conditions have repeatedly noted this conceptual uncertainty (Dahl & Bergmark, 2020; Starcevic & Aboujaoude, 2017). Clinical research has examined treatment-seeking behaviour, psychological symptoms, therapeutic approaches, and functional impairment, while also showing how difficult it is to define the boundaries of the concept consistently (Kuss & Lopez-Fernandez, 2016). For the present study, this means that "digital addiction" needs to be used with care and should not become a general label for frequent or intensive digital engagement that may instead be habitual, functional, socially expected, or contextually necessary.

Behavioural addiction research helps clarify why this caution is necessary. In Griffiths' components model, addiction is identified through the combined presence of salience, mood modification, tolerance, withdrawal, conflict, and relapse (Griffiths, 2005). Repetition alone is therefore not the defining feature. An activity becomes addictive when it increasingly dominates thought and behaviour, provides mood-related reinforcement, requires greater engagement, creates distress when interrupted, produces conflict with other areas of life, and remains difficult to stop even after attempts at control. The World Health Organization's ICD-11 definition of gaming disorder follows a comparable logic by emphasising impaired control, increasing priority given to gaming, continuation despite negative consequences, and significant impairment in personal, family, social, educational, or occupational functioning (World Health Organization, 2020). Although gaming disorder is narrower than digital addiction, the criteria are useful because they make clear that duration and frequency are not enough; control, displacement, persistence despite harm, and functional impairment also matter.

This matters in everyday digital life, where screen-based activities are now embedded in education and social participation. Scholars have warned that treating heavy use as addiction can lead to the overpathologising of ordinary behaviour. Billieux et al. (2015), for instance, caution against turning common daily activities into disorders simply because they are frequent, pleasurable, or habitual. Panova and Carbonell (2018) make a related point about the term "smartphone addiction": what appears to be dependence on the device may actually

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EISSN: 0128-1666
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involve different activities carried out through it, including communication, social networking, gaming, information search, or entertainment. The smartphone, in other words, often serves as a gateway rather than a single object of addiction. Kardefelt-Winther (2016) further notes that excessive internet use can reflect coping processes, contextual demands, or psychological needs. The implication is not that problematic use should be dismissed, but that intensive use, habitual use, functional dependence, maladaptive coping, and clinically significant addiction should not be treated as interchangeable.

Screen time illustrates this problem particularly clearly. It is easy to measure and easy to communicate, which explains why it is often used as a shorthand indicator of digital risk. Its simplicity, however, also limits what it can tell us. A single screen-time figure can combine different devices, platforms, contents, motivations, and contexts (Kaye et al., 2020). Seven hours online, for example, might include lectures, academic writing, information search, group discussion, family communication, entertainment, gaming, social comparison, or emotional escape. These activities do not carry the same meaning or consequences. Media-use research therefore increasingly asks not only how long young people are online, but what they are doing, why they are doing it, and how that use fits into their wider lives (Council on Communications and Media, 2016; Odgers & Jensen, 2020). Large-scale studies reinforce the need for such caution: Przybylski and Weinstein (2017) reported a nonlinear relationship between digital-screen time and mental well-being, while Orben and Przybylski (2019) found a negative but small association between digital technology use and adolescent well-being. Duration remains relevant, but it is not self-explanatory.

For this reason, the article treats screen time as a starting point for analysis rather than as a stand-alone measure of addiction. Four related concepts are distinguished. Digital use refers broadly to engagement with devices, platforms, and online services for communication, study, work, leisure, information, and social participation. Digital dependency describes a stronger reliance on digital devices for everyday routines or for maintaining social and informational access; it may include frequent checking, repeated use, or discomfort when devices are unavailable without necessarily implying serious impairment or loss of control. Digital necessity refers to the structural need for digital access when educational, professional, administrative, and social activities increasingly require it. Digital addiction is used more narrowly for compulsive or poorly controlled use that continues despite negative consequences and interferes with important areas of life.

Keeping these concepts separate allows high screen exposure to be interpreted in relation to purpose, context, dependency, and consequence instead of being treated automatically as addiction. For many young people, digital access is now required for learning, communication, information search, institutional access, and social coordination. A student who spends long hours online completing assignments, searching for information, communicating with classmates, and responding to institutional messages may therefore be highly dependent on digital devices without necessarily being addicted. The reverse is also possible: a person with fewer hours of screen time may still show problematic use if that engagement is compulsive, emotionally driven, difficult to control, or disruptive to sleep, study, relationships, or well-being. The distinction is useful precisely because it avoids two opposite errors—underestimating genuine problems and pathologising all frequent use.

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Self-regulation offers a useful way to understand the space between intensive use and addiction. LaRose et al. (2003) suggest that problematic internet use can be approached not only as addiction or habit, but also as deficient self-regulation. From this perspective, users are expected to monitor, judge, and adjust their own behaviour, although those processes can weaken when digital use is driven by immediate gratification, emotional relief, boredom, loneliness, or habitual checking. This makes it possible to move beyond a simple "addicted" versus "not addicted" distinction. Two young people may spend similar amounts of time online but show very different patterns if one can protect sleep, maintain attention, prioritise study, and reduce use when necessary, while the other experiences loss of control, sleep disruption, emotional dependence, or repeated difficulty disengaging.

The same point can be connected to broader models of media effects and digital well-being. Valkenburg and Peter's (2013) Differential Susceptibility to Media Effects Model proposes that media effects vary with dispositional, developmental, and social factors, so similar levels of screen exposure need not have the same consequences for everyone. Personal vulnerability, social environment, emotional state, educational demands, peer expectations, and coping strategies may all shape the outcome. The I-PACE model developed by Brand et al. (2016) likewise emphasises interactions among personal characteristics, affective and cognitive responses, coping styles, and executive functioning in the development and maintenance of specific internet-use disorders. Both perspectives support an interactional reading of problematic digital behaviour rather than one based on exposure alone.

The Malaysian youth survey examined in this article provides an empirical setting in which to apply this perspective (Tan et al., 2024). The literature review is used here to establish the lens for interpreting the survey rather than to repeat the descriptive findings. Within that lens, self-regulation refers to the capacity to manage digital engagement alongside competing priorities such as study, work, sleep, social relationships, emotional well-being, and physical health. It includes recognising risk, limiting use when necessary, reducing screen time when it begins to interfere with other activities, and preventing digital engagement from displacing important responsibilities. This definition makes it possible to interpret the survey in a more layered way than screen time alone would allow.

Three propositions follow from this framework. First, screen time is relevant but insufficient for identifying digital addiction. Second, functional or necessary digital use should be separated from compulsive and harmful engagement. Third, self-regulation helps explain why similarly high levels of screen use may remain manageable for some users but become disruptive for others. These propositions guide the analysis of Malaysian youth digital device use, addiction awareness, and perceptions of healthy screen use in the sections that follow.

## Methodology

This study adopts a quantitative, descriptive cross-sectional survey design to examine digital device use, addiction awareness, and self-regulation among Malaysian youth. A quantitative survey design was considered appropriate because the study aimed to identify broad patterns of behaviour, perception, and awareness among a relatively large group of respondents. Survey research is commonly used to describe trends, attitudes, behaviours, and perceptions within a defined population or respondent group (Creswell & Creswell, 2018). The study used a structured questionnaire developed by the research team to capture descriptive indicators of screen use, device reliance, purposes of digital engagement, awareness of digital addiction,

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understanding of healthy screen use, and selected signs of problematic or poorly regulated digital behaviour. In this article, the emphasis is not on clinical diagnosis, scale validation, or causal modelling, but on describing and interpreting patterns relevant to youth digital behaviour.

The survey was designed and implemented by members of the original research team under the Tun Tan Cheng Lock Institute of Social Studies, Universiti Tunku Abdul Rahman, in collaboration with the Academy of Contemporary Islamic Studies, Universiti Teknologi MARA Perlis. Selected descriptive findings from the survey were previously disseminated through an institutional report intended for public and policy communication (Tan et al., 2024). The present article develops those findings into a journal-oriented academic analysis by interpreting the survey results through the concepts of screen time, digital necessity, addiction awareness, and self-regulation. In this sense, the article should be understood as an original descriptive empirical study based on a structured survey conducted by the research team, rather than as a secondary analysis of an external dataset.

The survey was conducted online over a period of two weeks and targeted youth aged between 16 and 30 from various ethnic backgrounds using non-probability convenience sampling. A total of 528 valid responses were obtained. Of these, 299 were female, representing 56.63% of the sample, while 229 were male, representing 43.37%. The majority of respondents were Malaysian, accounting for 99.43% of the sample. In terms of ethnicity, Malay respondents formed the largest group at 49.05% (N = 259), followed by Chinese respondents at 39.96% (N = 211), Bumiputera Sarawak at 4.92% (N = 26), Bumiputera Sabah at 3.60% (N = 19), and Indian respondents at 1.52% (N = 8). The educational profile of the respondents shows that the sample was concentrated among pre-university and undergraduate students. Pre-university students accounted for 48.67% (N = 257), while bachelor's degree students accounted for 47.54% (N = 251). Smaller proportions came from secondary school at 3.03% (N = 16) and postgraduate programmes at 0.76% (N = 4) (Tan et al., 2024). This sample profile suggests that the findings are most directly relevant to youth in upper-secondary, pre-university, and tertiary education contexts.

The questionnaire measured several dimensions of digital behaviour and perception.

- The first dimension was daily screen time. Respondents were asked to indicate the approximate amount of time they spent using screens per day, with response categories ranging from zero to two hours to more than eight hours. This variable provides a basic indicator of digital exposure, but it is not treated in this article as a sufficient measure of digital addiction.
- The second dimension was device use. Respondents reported the number of devices they typically used daily, their frequency of device switching, and their use of specific devices, including smartphones, laptops, desktop computers, and smartwatches (Tan et al., 2024).
- The third dimension was purpose of device use. The survey categorised device use into communication, social interaction, gaming, information search, entertainment, and online shopping. This dimension is important because it allows the article to distinguish between functional, educational, communicative, recreational, and consumption-oriented uses of digital devices. Such differentiation is central to the article's argument that screen time should not be interpreted in isolation.

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- The fourth dimension was awareness of digital addiction. Respondents evaluated statements concerning the meaning and features of digital addiction, including inability to leave screens, craving for social approval, desire for constant satisfaction, desire for continuous entertainment, and whether digital addiction should be understood as a medical condition requiring treatment.
- The fifth dimension was understanding of healthy screen use. Respondents were asked about whether screen use is harmless, whether healthy screen use requires avoiding all screens, and whether healthy use involves balancing screen time with other activities and priorities. These items are particularly relevant to the article's focus on self-regulation, as they indicate whether respondents understand healthy digital behaviour in terms of abstinence, balance, priority-setting, or behavioural control. They are used in this article as descriptive indicators of perceived self-regulation rather than as a validated psychometric self-regulation scale.
- The sixth dimension concerned signs associated with potentially problematic digital use. These included constantly checking phones for updates, losing track of time while scrolling social media, experiencing neck pain, headaches, or eye strain after extended screen use, declining ability to focus on tasks requiring sustained attention, delaying bedtime because of devices, inability to sleep without devices, using screens to avoid difficult emotions or situations, and difficulty reducing screen time.

The data are analysed descriptively. Frequencies and percentages are used to summarise respondent characteristics, screen-time patterns, device preferences, purposes of device use, awareness of digital addiction, understanding of healthy screen use, and selected signs of problematic digital engagement. Descriptive analysis is suitable for this article because the objective is to identify and interpret key patterns rather than to test causal relationships or produce clinical classification (Creswell & Creswell, 2018). To address the risk of excessive report-style narration, the revised article presents the main descriptive findings in summary tables, including respondent profile, device-use patterns, purposes of use, and addiction-awareness or self-regulation indicators. This tabular presentation allows the findings section to focus less on repeating individual percentages and more on interpreting the broader patterns that emerge from the survey.

Several limitations should be acknowledged. First, because the survey was conducted online and used non-probability convenience sampling, the sample may be affected by self-selection bias. Youth who are more digitally connected may have been more likely to participate, which may influence reported levels of screen use and digital awareness. Second, the sample is concentrated among pre-university and undergraduate students. As such, the findings should not be generalised to all Malaysian youth without caution, especially youth who are working full-time, not enrolled in educational institutions, or from communities with lower levels of digital access. Third, the study relies on self-reported behaviour. Respondents' estimates of screen time, device use, and symptoms may differ from actual logged digital behaviour. Fourth, the survey measures awareness, perception, and self-reported signs associated with problematic use; it does not employ a validated digital-addiction scale or provide a clinical diagnosis of digital addiction. For this reason, the study cannot determine conclusively whether respondents were or were not addicted. The term "digital addiction" is therefore used analytically and cautiously in this article, with attention to awareness, dependency, self-regulation, and perceived symptoms rather than medical classification.

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Despite these limitations, the survey provides useful empirical insight into Malaysian youth digital behaviour. Its value lies not in diagnosing digital addiction, but in showing how young people use digital devices, how they understand digital addiction, and how they perceive healthy screen use. This makes the data suitable for examining the distinction between high screen time, digital necessity, functional dependency, and problematic digital engagement.

## Findings

The findings are presented thematically in response to the three research questions of this article. Instead of reporting each survey item separately, this section organises the descriptive results around four key patterns: digital device use, purposes of digital engagement, addiction awareness and healthy screen-use understanding, and selected self-regulation challenges or signs of problematic digital use. This structure allows the analysis to identify the broader meaning of the survey results while avoiding a purely report-style presentation of percentages.

### *Patterns of Digital Device Use*

The first pattern is that Malaysian youth in the sample were intensive digital users, but their use was concentrated around a limited set of core devices. As shown in Table 1, 88.07% of respondents reported five or more hours of daily screen use. However, most respondents did not report using a very large number of devices. Instead, 92.62% used up to three devices daily, while only 7.38% used more than four devices. This suggests that intensive screen exposure was not necessarily accompanied by highly fragmented multi-device behaviour.

**Table 1: Patterns of Digital Device Use among Respondents**

| Indicator | Response / Category | Key Finding |
|---|---|---|
| Daily screen time | 0-2 hours | 0.57% |
| | 3-4 hours | 11.36% |
| | 5-6 hours | 32.39% |
| | 7-8 hours | 22.16% |
| | > 8 hours | 33.52% |
| | | |
| Devices used daily | up to 3 devices | 92.62% |
| | more than 4 devices | 7.38% |
| | | |
| Device switching | Very frequently | 5.30% |
| | Frequently | 30.68% |
| | Occasionally | 39.96% |
| | Rarely | 24.05% |

Source: Tan et al. (2024).

The data indicate that screen use was a routine and substantial part of respondents' everyday life. The largest groups were those who used screens for five to six hours and more than eight hours per day. At the same time, the relatively low proportion of respondents who switched devices very frequently suggests that digital engagement was not necessarily marked by

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constant movement across many devices. Rather, many respondents appeared to rely on a limited number of devices that served multiple functions.

The second feature of digital device use concerns the centrality of smartphones and laptops. As shown in Table 2, smartphones were the most relied-upon device, with 75.95% of respondents selecting the highest frequency category and 16.67% selecting the second-highest category. Laptops formed the second most important device category. By contrast, desktop computers and smartwatches were much less central to respondents' digital routines.

**Table 2: Frequency of Use by Device Type**

| Device | Key Response Pattern (100%) | Interpretation |
|---|---|---|
| **Smartphone** | 75.95% selected the highest frequency category; 16.67% selected the second-highest category | Most central everyday device |
| **Laptop** | 23.86% selected the highest frequency category; 35.04% selected the second-highest category | Important for study and work-related tasks |
| **Desktop computer** | 44.13% selected the lowest frequency category; 28.41% selected the second-lowest category | Less central to youth digital routines |
| **Smartwatch** | 60.61% selected the lowest frequency category; 15.91% selected the second-lowest category | Least central among the listed devices |

Source: Tan et al. (2024).

This pattern suggests that youth digital behaviour was shaped less by ownership of many devices than by reliance on portable and multifunctional devices. Smartphones provide constant accessibility for communication, information search, and daily coordination, while laptops support more sustained academic or work-related activities. The limited role of desktops and smartwatches further indicates that portability and functionality were important factors shaping respondents' digital device use.

### *Functional Purposes of Digital Engagement*

The second major pattern concerns the purposes of digital device use. This is important because screen time alone cannot explain whether digital engagement is functional, recreational, habitual, or potentially problematic. As shown in Table 3, the most prominent purposes of device use were communication and information search. Entertainment and social interaction were also present, but they were less dominant. Gaming and online shopping were the least prominent among the listed purposes.

**Table 3: Purposes of Digital Device Use**

| Purpose of Use | Percentage | Analytical Meaning |
|---|---|---|
| Communication | 60.80% | Functional and relational use |
| Information search | 52.08% | Educational and informational use |

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| | | |
|---|---|---|
| Entertainment | 37.50% | Recreational use |
| Social interaction | 24.43% | Social use |
| Gaming | 15.91% | Less dominant recreational use |
| Online shopping | 13.83% | Less dominant consumption-oriented use |

Source: Tan et al. (2024).

The findings show that digital devices were not used primarily for gaming, shopping, or entertainment alone. Instead, communication and information search were the leading purposes of use. This suggests that digital devices functioned as practical tools for managing study, peer interaction, information access, and everyday coordination. In this respect, high screen time among respondents should be understood in relation to the digitalisation of education and daily life.

This finding also helps explain why the article treats screen time as an entry point rather than as a sufficient measure of digital addiction. Long hours of screen use may include online learning, academic writing, information search, group discussion, family communication, entertainment, and social interaction. These activities differ in purpose and consequence. Therefore, the functional purposes of digital engagement must be considered before drawing conclusions about addiction or problematic use.

### *Addiction Awareness and Healthy Screen-Use Understanding*

The third pattern is that respondents demonstrated a considerable level of awareness about digital addiction and healthy screen use. As shown in Table 4, more than 82% of respondents agreed or strongly agreed that digital addiction involves being unable to leave screens. Respondents also associated digital addiction with craving social approval, constant satisfaction, and continuous entertainment. However, less than half agreed that digital addiction should be understood as a medical condition requiring medical treatment.

**Table 4: Digital Addiction Awareness and Healthy Screen-Use Understanding**

| Dimension | Indicator | Key Finding |
|---|---|---|
| Addiction awareness | Digital addiction involves being unable to leave screens | Over 82% |
| Psychological feature | Craving social approval | 62.31% |
| | Constant satisfaction | 72.92% |
| | Continuous entertainment | 82.20% |
| Medical framing | Digital addiction as a medical condition requiring treatment | 46.40% |
| Risk awareness | Disagreed that screen use is harmless | 52.84% |
| | Recognised negative consequences of digital addiction | 57.95% |

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| | | |
|---|---|---|
| Screen abstinence | Believed avoiding all screens is essential | 38.26% |
| Healthy screen use | Balancing screen time with other activities | 82.01% |
| | Balancing screen time with other priorities | 79.73% |

Source: Tan et al. (2024).

These findings suggest that respondents did not define digital addiction only in terms of time spent online. Many associated it with psychological and behavioural features, including inability to disengage, craving for social approval, and the desire for continuous satisfaction or entertainment. This indicates that respondents had some awareness of the compulsive and motivational dimensions of digital addiction.

At the same time, respondents did not generally understand healthy screen use as total avoidance of digital devices. Most associated healthy screen use with balance, particularly balancing screen time with other activities and priorities. This is significant because it points to self-regulation as a central issue. In this study, self-regulation is visible mainly through respondents' endorsement of balance and prioritisation, together with later indicators showing difficulty reducing screen time, delaying bedtime, and frequent checking. For youth whose education, communication, and information access are increasingly mediated by digital devices, healthy digital behaviour cannot be defined simply as abstinence from screens. Rather, it involves the ability to organise, prioritise, and control digital engagement in relation to study, sleep, social relationships, and well-being.

***Selected Signs of Problematic Digital Use***

The fourth pattern concerns selected signs of problematic digital use. These indicators do not provide a clinical diagnosis of digital addiction, but they identify areas where digital engagement may become disruptive. As shown in Table 5, several signs were reported by a substantial minority of respondents. These included frequent phone checking, losing track of time while scrolling social media, physical discomfort, difficulty concentrating, delayed bedtime, emotional use of screens, and difficulty reducing screen time.

**Table 5: Selected Signs of Problematic Digital Use**

| Indicator | Key Finding | Analytical Meaning |
|---|---|---|
| Frequently checking phones for updates | 51.14% | Habitual checking / attentional pull |
| Losing track of time while scrolling social media | 44.32% | Time-management risk |
| Neck pain, headaches, or eye strain after extended screen use | 47.92% | Physical discomfort |
| Difficulty concentrating on tasks requiring sustained attention | 45.08% | Attention-related concern |

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| | | |
|---|---|---|
| Delaying bedtime because of device use | 53.79% | Sleep hygiene risk |
| Unable to sleep without devices | 28.03% | Stronger dependency indicator, but less common |
| Using screens to deal with difficult emotions or situations | 49.43% | Emotional coping pattern |
| Difficulty reducing screen time | 37.69% | Self-regulation challenge |

Source: Tan et al. (2024).

The results show that problematic signs were present, but uneven. More than half of the respondents reported frequently checking phones for updates and delaying bedtime because of device use. These behaviours may indicate habitual checking and weakened boundaries between digital engagement and rest. In addition, 44.32% reported losing track of time while scrolling social media, while 45.08% reported difficulty concentrating on tasks requiring sustained attention. These findings point to possible time-management and attention-related concerns.

However, stronger indicators of dependency were reported by smaller proportions of respondents. For example, while 53.79% delayed bedtime because of device use, only 28.03% felt unable to sleep without devices. Similarly, although nearly half used screens to deal with difficult emotions or situations, 37.69% reported difficulty reducing their screen time. This distinction is important because it shows that not all risk-related behaviours indicate the same level of dependency or loss of control. Some behaviours may reflect habit, convenience, or emotional coping, while others may suggest weaker self-regulation.

***Summary of Findings***

Overall, the findings show that Malaysian youth in the sample were heavy digital users, but their digital engagement was largely organised around communication, information search, study-related routines, and everyday coordination. Smartphones and laptops were the most central devices, while desktops and smartwatches played a less prominent role. Respondents also demonstrated awareness of digital addiction and generally understood healthy screen use in terms of balance and prioritisation rather than total screen avoidance.

At the same time, the findings identify several areas of concern. Frequent phone checking, delayed bedtime, physical discomfort, attention difficulty, emotional coping through screens, and difficulty reducing screen time suggest that some respondents experienced challenges in regulating digital engagement. These signs should not be dismissed. However, because the survey did not employ a validated digital-addiction scale, they should be interpreted as indicators that high screen exposure needs to be examined together with behavioural patterns, perceived control, purpose of use, and negative consequences, rather than as diagnostic evidence of widespread digital addiction. Instead, the findings suggest that youth digital behaviour is best understood along a continuum from functional digital use and digital necessity to weaker self-regulation and potential problematic dependency.

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Volume 11 Issue 44 (September 2026) PP. 340-360

## Discussion

### *Moving Beyond Screen Time as a Stand-Alone Indicator*

The findings indicate that screen time is useful for describing the intensity of digital exposure, but not for determining digital addiction on its own. Respondents in the Malaysian youth sample reported substantial screen use, which understandably raises questions about excessive engagement. Yet the meaning of that exposure changes once purpose of use, functional necessity, perceived risk, behavioural patterns, and self-regulatory capacity are considered. The survey also did not include a validated digital-addiction scale, so the results cannot establish whether respondents were or were not addicted. What the number of hours can show is how intensive digital engagement is; it cannot, by itself, tell us whether that engagement is productive, necessary, habitual, emotionally driven, poorly regulated, or addictive.

This reading is consistent with behavioural addiction research. Griffiths' (2005) components model describes addiction through a cluster of features that includes salience, mood modification, tolerance, withdrawal, conflict, and relapse. The World Health Organization's definition of gaming disorder similarly focuses on impaired control, the increasing priority of gaming over other activities, continuation despite negative consequences, and significant impairment in personal, family, social, educational, or occupational functioning (World Health Organization, 2020). The present study deals with digital device use more broadly than gaming disorder, but the underlying principle remains relevant: duration is not a substitute for evidence about control, displaced priorities, persistence despite harm, or functional impairment.

The results also fit with recent criticism of broad claims based on screen time. A single screen-time measure can combine many activities, devices, contexts, and motivations (Kaye et al., 2020). Identical hours of exposure may therefore represent online learning, academic work, communication, information search, entertainment, gaming, social comparison, or emotional escape, each with different psychological meanings and consequences. Large-scale studies have likewise found that the relationship between digital technology use and youth well-being is neither simple nor uniformly harmful. Przybylski and Weinstein (2017) identified a nonlinear relationship between digital-screen time and mental well-being, while Orben and Przybylski (2019) found a negative but small association between digital technology use and adolescent well-being. The Malaysian findings sit comfortably within this more cautious body of work: screen time is informative, but it marks the beginning of interpretation rather than its endpoint.

### *Digital Necessity and Functional Dependency in Youth Digital Life*

A central contribution of the article is to separate digital necessity, functional dependency, and digital addiction. Respondents were intensive digital users, but much of their engagement was tied to communication, information search, study-related routines, and everyday coordination (Tan et al., 2024). This makes it difficult to describe young people simply as passive consumers of digital media. Their daily lives also require them to function as digitally dependent learners, communicators, and information seekers in settings where participation itself is increasingly organised through digital platforms and devices.

The importance of smartphones and laptops in the survey reinforces this interpretation. Smartphones allow continuous access to communication, information, social coordination, and institutional updates, whereas laptops support more sustained academic or work-related tasks.

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Both therefore function as practical infrastructure in youth life, not merely as channels for entertainment or distraction. Panova and Carbonell (2018) make a similar distinction when they argue that "smartphone addiction" can blur the difference between addiction to a device and reliance on the activities that the device makes possible. This is particularly relevant here because a smartphone is not a single-purpose object; it connects users to communication, learning, searching, entertainment, social interaction, and everyday management.

The idea of digital necessity is helpful because it guards against two opposite mistakes. One is overpathologisation, where frequent or intensive use is labelled as addiction too quickly. Billieux et al. (2015) warn against treating everyday behaviours as disorders simply because they are common, pleasurable, or habitual. The other mistake is to normalise all intensive use on the grounds that digital devices are necessary. Necessity explains why young people remain highly connected, but it does not make every form of connection healthy or well regulated. A student may need a device for study and communication while still experiencing pressure to remain constantly reachable, interruptions to concentration, delayed sleep, or the use of screens to avoid difficult emotions. Digital necessity is therefore best understood as a condition shaping behaviour, not as evidence that digital risk is absent.

***Awareness, Self-Regulation, and the Continuum of Problematic Use***

The survey also shows that many respondents were aware of digital addiction and of what healthy screen use might involve. They associated digital addiction with being unable to leave screens, craving social approval, seeking constant satisfaction, and wanting continuous entertainment (Tan et al., 2024). At the same time, healthy use was understood mainly in terms of balancing screen time with other activities and priorities rather than avoiding screens altogether (Tan et al., 2024). This matters because it suggests that the issue is not simply a lack of awareness. Respondents could recognise several psychological and behavioural features associated with problematic engagement even while living in an environment where extensive digital use is normal.

Awareness, however, does not necessarily translate into behavioural control. Some respondents who recognised the risks of excessive digital use also reported frequent phone checking, delayed bedtime, physical discomfort, difficulty sustaining attention, emotional use of screens, and difficulty reducing screen time (Tan et al., 2024). The gap between what respondents know and what they are able to do points to self-regulation as a practical issue rather than a purely informational one. Young people may understand the possible harms of overuse but still struggle with notifications, emotional triggers, social expectations, boredom, study pressure, or habitual checking.

LaRose et al. (2003) offer a useful way of reading this pattern by framing problematic internet use partly as deficient self-regulation rather than only as addiction or habit. The question then becomes whether users can monitor, evaluate, and adjust their own behaviour. This perspective is particularly useful for the present data because the survey cannot classify respondents as addicted or not addicted. Two users may report similar screen time yet differ greatly in practice: one may be able to protect sleep, maintain attention, meet responsibilities, and cut back when needed, while another may experience loss of control, emotional dependence, or repeated difficulty disengaging.

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Broader models of media effects and internet-use disorders point in the same direction. Valkenburg and Peter's (2013) Differential Susceptibility to Media Effects Model argues that media effects vary according to dispositional, developmental, and social factors. Similar amounts of digital exposure can therefore have different consequences depending on emotional state, social environment, educational demands, and individual vulnerabilities. The I-PACE model proposed by Brand et al. (2016) adds the interaction of personal characteristics, affective and cognitive responses, coping styles, and executive functioning in the development and maintenance of specific internet-use disorders. These models help explain why problematic digital use is better understood as the outcome of several interacting conditions than as a direct consequence of screen time.

Seen together, the findings suggest a continuum rather than a simple divide between addicted and non-addicted users. At one end is functional digital use, in which devices support learning, communication, information access, and everyday coordination. In the middle are digital dependency and habitual use, where devices are deeply embedded in routine but may still remain manageable. At the riskier end are poorly regulated or compulsive patterns, especially when digital engagement begins to disrupt sleep, attention, emotional well-being, physical health, study, or relationships. This continuum is a conceptual interpretation of the descriptive patterns in the survey, not a statistically derived typology or diagnostic classification. Its value is that it allows the article to acknowledge real problems without treating all intensive digital use as pathological.

***Implications for Digital Well-Being Education and Policy***

The findings have practical implications for youth education, family guidance, and public policy. A general call to reduce screen time is unlikely to be enough when young people depend on digital devices for study, communication, institutional access, information search, and social coordination. Reducing screen exposure may certainly help when device use interferes with sleep, concentration, or emotional well-being. Even so, restriction alone does not answer the more important questions of how, why, and under what circumstances young people are using digital devices.

For educational institutions, this points to digital well-being education rather than screen-time reduction as the only goal. Students need help distinguishing productive, recreational, habitual, emotionally driven, and compulsive forms of use. They also need practical strategies for regulating that use—for example, managing notifications, setting study priorities, protecting sleep, taking breaks, recognising emotional triggers, and seeking support when digital engagement becomes difficult to control. Such an approach fits the pattern observed in this study: Malaysian youth are intensive digital users, but much of that use is functional and many respondents already show some awareness of digital risk.

Families and policymakers have a role as well. Family discussions can focus on digital routines, sleep hygiene, emotional coping, and attention management without treating all device use as irresponsible. At the policy level, youth digital health literacy can be developed alongside digital literacy, mental health awareness, sleep education, attention management, and responsible technology use. This provides a more balanced response to the findings. It recognises the practical necessity of digital devices in contemporary youth life while still addressing the risks that arise when use becomes poorly regulated.

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The discussion therefore points to a cautious use of the term digital addiction. Respondents reported high screen time, but much of their device use was connected to communication, information search, study, and everyday coordination. They also showed awareness of digital addiction and of the importance of balancing screen use with other priorities. At the same time, frequent checking, delayed sleep, physical discomfort, attention difficulties, emotional coping, and difficulty reducing screen time remain meaningful concerns. The survey does not allow these patterns to be diagnosed as addiction, but it does show why high screen exposure needs to be considered together with behaviour, perceived control, purpose of use, and negative consequences. That distinction provides a more useful basis for research, education, and policy than screen time alone.

## Conclusion And Implications

This article examined digital device use, addiction awareness, and self-regulation among Malaysian youth through a structured cross-sectional online survey conducted by the original research team. High screen exposure was common in the sample, and smartphones and laptops were the devices most central to respondents' daily routines (Tan et al., 2024). Duration alone, however, does not explain what that exposure means. Much of respondents' digital engagement was tied to communication, information search, study-related routines, and everyday coordination. Youth screens use therefore needs to be read within a wider digital environment in which education, social interaction, information access, and daily management increasingly depend on connected devices.

The main contribution of the article is the distinction it draws between digital necessity, functional dependency, and digital addiction. High screen time may signal potential risk, but it is not sufficient evidence of addiction. Behavioural addiction involves more than frequency or duration and is associated with impaired control, displaced priorities, continuation despite negative consequences, and functional impairment (Griffiths, 2005; World Health Organization, 2020). The present study also did not use a validated digital-addiction scale, so its findings remain descriptive and conceptual rather than diagnostic. This is especially important in a context where smartphones and laptops are deeply embedded in study, communication, and information access. Heavy reliance on such devices can be functional without being compulsive, although necessary use can still become problematic when it is poorly regulated, emotionally driven, or disruptive to sleep, attention, physical comfort, study, or relationships.

The three research questions can therefore be answered from the patterns observed in the survey. First, digital device use among respondents was intensive and centred mainly on smartphones and laptops, with communication, information search, study-related routines, and everyday coordination forming important parts of that use. Second, respondents associated digital addiction with an inability to disengage, craving for social approval, constant satisfaction, and continuous entertainment, while healthy screen use was understood mainly in terms of balance and prioritisation rather than complete avoidance of screens (Tan et al., 2024). Third, self-regulation appeared important but uneven. Respondents endorsed balance and prioritisation, yet some also reported difficulty reducing screen time, frequent checking, and delayed bedtime. These findings are consistent with the view that problematic digital use can be approached partly through deficient self-regulation rather than through screen time alone (LaRose et al., 2003).

For practice and policy, this means that general advice to reduce screen time should not be the only response. Cutting unnecessary exposure may be useful in some situations, but it is a limited strategy when young people rely on digital devices for learning, communication, information search, and institutional participation. Digital well-being initiatives can instead place greater emphasis on digital health literacy, self-monitoring, sleep hygiene, attention management, emotional coping, and practical self-regulation. This approach reflects the dual character of digital technology in youth life: it is increasingly necessary, yet it can still create problems when use becomes difficult to manage.

Several limitations remain. The survey was conducted online, relied on non-probability convenience sampling, and drew heavily from youth in educational settings, so the findings should not be generalised to all Malaysian youth without caution. The study also depends on self-reported behaviour and does not use a validated digital-addiction scale or provide a clinical diagnosis. Future research could extend the present work through a more balanced national sample, respondent-level statistical analysis, comparisons across demographic groups, longitudinal designs, and qualitative interviews. Validated psychological scales or clinical screening tools may also be incorporated where appropriate, although survey indicators should continue to be distinguished clearly from medical diagnosis unless clinical assessment is involved.

The broader point is that Malaysian youth digital behaviour cannot be understood from screen time alone. High exposure is worth examining, but its significance depends on what young people are doing online, why they are doing it, how much control they retain, and whether the behaviour produces negative consequences. Read together, purpose of use, digital necessity, addiction awareness, behavioural control, and self-regulatory capacity provide a more balanced way of interpreting the descriptive patterns found in this study and of developing education and policy responses that support healthier digital engagement.

**Acknowledgements:** The authors would like to express their sincere gratitude to the Tun Tan Cheng Lock Institute of Social Studies (TCLI), Universiti Tunku Abdul Rahman, for supporting the nationwide survey and providing institutional resources for this research. Appreciation is also extended to the survey participants for their valuable time and insights, and to colleagues who contributed feedback during the design and translation of the multilingual questionnaire.

**Funding Statement:** No Funding

**Conflict of Interest Statement:** The authors declare that there is no conflict of interest regarding the publication of this paper. All authors have contributed to this work and approved the final version of the manuscript for submission to the International Journal of Information System and Technology Management (JISTM)

**Ethics Statement:** This study was conducted in accordance with ethical research standards. All procedures involving human participants were reviewed and approved by the Tun Tan Cheng Lock Institute of Social Studies (TCLI), Universiti Tunku Abdul Rahman (UTAR). Informed consent was obtained from all participants prior to data collection. Participation was voluntary, and respondents were assured of confidentiality and anonymity. The data collected were used solely for academic purposes.

**Author Contribution Statement:** All authors contributed significantly to the development of this manuscript. All authors read and approved the final version of the manuscript prior to submission.

**Declaration of Generative AI and AI-Assisted Technology in the Writing Process** During the preparation of this manuscript, the authors used generative AI and AI-assisted technology solely for language refinement, grammar checking, sentence restructuring, improvement of readability, and minor stylistic editing. The tool was not used to generate research data, fabricate findings, conduct data analysis, create statistical results, or replace the authors' scholarly interpretation.

All research data, survey findings, tables, analysis, arguments, and conclusions presented in this manuscript are based on the authors' actual research and have been reviewed, verified, and approved by the authors. After using AI-assisted language support, the authors carefully checked and edited the manuscript to ensure accuracy, academic integrity, and consistency with the original research findings. The authors take full responsibility for the content of the manuscript.

Journal of Information System and Technology Management
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EISSN: 0128-1666
Volume 11 Issue 44 (September 2026) PP. 340-360

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