

Psychological and Technology Factor Contribute to Social Media Addiction

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Abstract: In the present-day context of worldwide connectivity, social media has emerged as an integral component of many adolescents' everyday routines. However, the seemingly harmless practice of utilizing social networking platforms can swiftly transform into a significant dependency, leading to unfavorable consequences. Adolescents' excessive dependence on social media platforms has garnered significant attention from scholars and practitioners in the mental health field. Psychological and technological elements are recognized as contributing to social media addiction, which has detrimental consequences for adolescents. Hence, the primary objective of this study is to gain a comprehensive understanding of the existing literature about the psychological and technological elements contributing to addiction to social media platforms. The discourse outcomes will illuminate the strategies employed to mitigate social media addiction by addressing the abovementioned factors. This conclusion has significant implications, as it will stimulate further discussion and prompt additional research reviews on the various elements contributing to social media addiction.

Keywords: *Psychological; Social Media, Sociological, Technology, Adolescents, Social Media Addiction*

1. Introduction and Background

The issue of social media addiction has emerged as a significant concern, particularly in the context of adolescent populations. The phenomenon of addictive behavior involves a range of inclinations, including an obsessive preoccupation with social media, compulsive usage patterns, alterations in mood, and even the development of tolerance and withdrawal symptoms (Larson, 2021). Research findings indicate that individuals in their youth are particularly susceptible to developing addictions to social media platforms. Based on empirical investigations of the phenomenon of social media addiction, a discernible association has been observed between this compulsive behavior and various mental health conditions. Extensive research has shown substantial evidence of the adverse consequences of excessive reliance on social media platforms, particularly among young adults, which significantly impact their mental well-being and overall cognitive abilities (Alhusban et al., 2022). Recent studies have demonstrated a significant correlation between excessive usage of social media platforms and the presence of depressive symptoms and anxiety disorders. In addition, the aforementioned addictive conduct has been observed to negatively impact the self-esteem and decision-making capacities of students (Sahimi et al., 2022). The phenomenon of social media addiction is a significant concern that necessitates careful consideration and examination. The phenomenon of social media addiction is a multifaceted matter that might potentially have detrimental effects on the psychological well-being and overall welfare of young individuals. The issue of social media addiction is gaining recognition as a significant concern since it has been found to have negative effects on the mental well-being and overall functioning of young adults (Alhusban et al., 2022).

2. Literature Review

Social Media in Malaysia: In Malaysia, a comparable scenario unfolds where numerous incidents transpire at an alarming rate due to the prevalence of social media addictions. Based on data provided by the International Society of Online Addiction (ISIA), it was found that 37% of parents in Malaysia expressed concerns over the potential conflict between their children's online activities and their responsibilities at home and school. Additionally, 18% of children were observed to exhibit neglect towards essential social interactions. According to Datuk Dr. Andrew Mohanraj, the Deputy President of the Association of

Psychiatrists and Malaysian Mental Health, vulnerable or socially uncomfortable children are at significant risk of developing internet addiction. Dr. Norharlina Bahar, a representative and child psychologist from the International Internet Addiction Society, highlighted the excessive impact of online activities on the brain, leading to biological alterations. According to We Are Social- Hootsuite (2019), Malaysia has achieved a significant milestone in mobile social media penetration, ranking among the top five countries globally and holding the highest position in Southeast Asia. This achievement is shown by the active user base of 25 million, constituting almost 78 percent of the population. Based on the findings of the study, it was determined that the level of internet penetration in Malaysia stood at 80%, encompassing a total of 25.84 million individuals who were connected to the Internet. On average, users typically allocate approximately eight hours each week to internet activities. Malaysia is positioned in the sixth place among Southeast Asian nations, which encompasses Singapore, with Thailand following in the eighth position and the Philippines in the tenth position. The three most prominent social networks in Malaysia, in terms of user activity, are YouTube, Facebook, and Instagram. Based on the findings of the Digital 2019 report, it has been determined that the number of active Facebook users exceeds 24 million, while the number of active Instagram users surpasses 12 million. Additionally, the report indicates that there are over 2.63 million active Twitter users and over 4.7 million active LinkedIn users. Previous research has indicated that there are various manifestations of symptoms associated with social media addiction, encompassing mood, cognition, physical and emotional responses, as well as interpersonal and psychological concerns (Kuss & Griffiths, 2011; Balakrishnan & Shamim, 2013; Zaremohzzabieh et al., 2014; Błachnio et al., 2017). Research studies conducted by Wahid et al. (2022) have revealed that approximately 12% of individuals who utilize various social networking platforms are affected by social media addiction. This study intends to investigate additional factors contributing to social media addiction among adolescents by conducting a thorough evaluation of relevant material from scholarly journal publications.

Overview of Social Media: Social media is defined as a compilation of web applications that enable customers to produce their content and share it online. Social media is diverse and includes forums, e-mail, messaging services, websites, and social networking blogs for web and mobile applications. Shared content entails things like comments, status updates, pictures, messages, multimedia, and text files in the form of electronic information. Such media allow people to interact with other people with mutual interests (Livingstone & Brake, 2010). The most commonly used social media tools are Facebook (FB), Twitter, Instagram, Snapchat, WhatsApp, and LinkedIn. Social media is a very broad term that includes several different types of media: a place where a user can disseminate data to others, enabling everyone to share content that others can share with their internet links and a communication vehicle. Social media is an electronic form of communication that enables customers to produce and share information such as ideas, private messages, and other material. Kaplan and Haenlein (2010) describe social media as "a group of Internet-based apps that build on Web 2.0's ideological and technological foundations and enable user-generated content to be created and exchanged." According to Kietzmann et al. (2011), social media are highly interactive platforms that use and utilize mobile phones and other web-based techniques to promote the development, co-creation, sharing, transformation, and discussion of user-produced content by people, organizations and communities. In practice, social media refers to platforms through which individuals interact among the most common platforms on Facebook, LinkedIn, Twitter, and YouTube, such as forums, blogs, wikis, social networks, and multimedia sites. These platforms could evolve or be replaced by others, but it seems important to address social media use by looking at the specific platforms. Several factors have a significant influence on social media, and this study will further explore personality and technology as the major factors influencing social media addiction.

In Malaysia, there is a significant reliance on social media platforms, with an estimated user base of roughly 26.8 million individuals, representing a substantial 78.5% of the total population. This widespread adoption of social media facilitates communication, fosters connections with others, and enables active engagement in shaping the global community. When examining the age distribution of social media users in Malaysia, it becomes evident that there is a high level of connectivity among those belonging to Generation Z and Millennials. Specifically, an overwhelming majority of users, accounting for 99.8%, are aged 18 and above. The average duration of social media usage among Malaysians amounts to slightly less than three hours per day, which may appear inconsequential. However, this translates to a cumulative usage of over 20 hours per week. The extent of Malaysians' utilization of social media for communication and information purposes is

exemplified by their average monthly usage of 7.7 platforms. For demographic factors, the age group of 25–34, born during the internet boom, has the highest activity level among social media users when segmented by age. Approximately 8.4 million individuals, constituting 31.5% of the total population of Malaysia, fall into this particular demographic. The utilization of social media platforms by young individuals in Malaysia accounts for around one-fourth of the total population, as 28.6% of users fall under the age group below 25 years. The importance of parental supervision over streaming platforms such as YouTube and Netflix is increasingly significant, particularly for underage individuals, given the unrestricted accessibility of internet content. In general, the adolescent population in Malaysia has seamlessly integrated the Internet into their daily routines, employing it for a wide range of purposes, including educational pursuits, recreational activities, and social interactions. When evaluating the effectiveness of social media material, it is crucial to consider age demographics, as distinct age groups exhibit varying levels of engagement with different types of content. The data above holds significant value for companies and marketers, as it empowers them to enhance the customization of their social media efforts by their target audience. Generating precise reports about research of this nature is crucial for businesses to evaluate the effectiveness of social media posts and obtain quantitative insights.

3. Personality and Social Media Addiction

Personality can be described as "the unique and characteristic patterns of thought, emotion, and behavior defining the behavioral style of an individual and influencing his or her interactions with the setting (Atkinson et al. 1993). In addition, personality is the pattern of distinctive ideas, emotions, and behaviors that distinguish one individual from another and persist over time (Phares, 1991). Larsen et al., (2005) define personality as "the set of organized and relatively enduring psychological traits and mechanisms within the individual that affect his or her interactions and adaptations to the environment, including the physical and social environment. The influence of personality is significant when it comes to elucidating the variations observed in problematic internet usage across individuals (Kircaburun et al., 2018). One of the personality dimensions that have been extensively examined in relation to internet addiction is extraversion. Extraversion pertains to individuals' propensity to exhibit friendliness, sociability, and talkativeness. Research indicates that there is a favorable correlation between extroversion and a heightened susceptibility to internet addiction (Hussain & Pontes, 2018). In relation to the utilization of the Internet and social media, there exists a robust and affirmative correlation with extraversion (Cheng et al., 2019). Individuals who exhibit extraverted traits tend to utilize social networking applications as a means to actively participate in social interactions, perhaps resulting in the acquisition of a greater number of social resources through online platforms. Regarding the phenomenon of geek behavior, a study conducted by Wildt & Dieris-Hirche (2019) found that individuals who engage in problematic internet use within the gaming community tend to exhibit lower levels of extraversion and higher levels of neuroticism compared to those who do not display problematic behavior. Additionally, the continuous connectivity facilitated by smartphones is particularly appealing to individuals with extroverted personality traits. Consequently, extroversion has been recognized as a predictive factor for problematic smartphone usage (Pivetta et al., 2019). However, certain recent investigations have failed to validate this correlation (Mitchell & Hussain, 2018). The presence of these inconsistencies may indicate the significance of approaching social networking and internet addiction from distinct conceptual frameworks when examining various forms of risky behavior. Neuroticism is an additional prominent personality trait that pertains to variations across individuals in terms of emotional stability and psychological adaptation. Research has demonstrated a favorable correlation between neuroticism and problematic internet use (Marengo et al., 2020). Research indicates that there is evidence to support the notion that introverted teenagers tend to exhibit heightened levels of internet engagement.

4. Technology and Social Media Addiction

The rapid advancements in digital technology have led to significant adjustments and impacts on how individuals communicate and integrate new technologies into their everyday lives. Individuals can use mobile phones, computers, or notebooks to access social networking sites. These methods of data collection and interaction have become essential tools for generating content and exchanging information. The use patterns of various access strategies can potentially influence user behavior and data exchange on various social networking platforms. For example, if consumers perceive mobile gadgets as intricate, they are less likely to

utilize those (Wakefield & Whitten, 2006). Implementing technological devices into the educational dimension has become essential to educational components due to swift technological advancements. In recent years, these tools and materials have significantly grown, leading to their consistent integration within educational and training contexts. Parents must cultivate positive feelings towards education and technology to enhance the quality of education. Parental monitoring is crucial, as the family setting serves as the primary educational institution for the child. Nevertheless, the significance of this access approach is greatly enhanced when corporations optimize the implementation of novel technologies and ensure their availability to a considerable user base, encompassing devices like smartphones or iPads (Wang et al., 2008). The advent of mobile gadgets, such as iPads, smartphones, and tablets, has facilitated the proliferation of social networking across various platforms. These devices can be considered versatile communication tools for utilitarian and recreational purposes (Lee et al., 2010, Alshammari et al. 2022). Smartphones are extensively utilized throughout various domains, encompassing communication through calling and texting, internet access, navigation, gaming, and engagement with social networks. Smartphones, which have become an integral part of social life, are now considered a technology consumers desire to access at all times due to the availability of many applications. Lee et al., (2019) argue that the compulsion to often check for messages or calls results from habit formation. They further assert that engaging in behaviors that compel an individual to perform these acts can contribute to the development of mobile addiction. An additional discovery indicates that parents exhibit comparable attitudes towards using technology in relation to socio-psychological development when compared across different age groups. However, it is worth noting that parents aged 40 and older demonstrate relatively weaker attitudes towards the use of technology by both themselves and their children.

In today's digital age, technology and social media play a significant role in our daily lives. From staying connected with friends and family to accessing information and entertainment, smartphones have become an integral part of our existence. The development of technology and the many platforms of social media have led to their widespread adoption among adolescents. As a result, the issue of social media addiction has emerged as a significant concern. This addiction can manifest in various ways, such as constantly checking notifications, spending excessive amounts of time on social media platforms, and feeling a sense of anxiety or withdrawal when separated from social media. Research suggests that young people are particularly susceptible to social media addiction due to their increased use of social media and social networking sites. These platforms provide a constant stream of gratification in the form of likes, comments, and shares, which can create a sense of validation and importance. As a result, many individuals find themselves compulsively engaging with social media, often at the expense of other aspects of their lives such as school, work, and personal relationships. The integration of social networking tools with mobile devices has occurred due to the central role of mobile devices in facilitating interpersonal communication and information sharing among individuals (Lipsman, 2010). According to Lipsman (2010), mobile phones enable individuals to communicate through various means, such as voice calls, text messaging, email, and mobile web browsers, facilitating interaction with social networking platforms. In a study by Arthur (2009), technology was defined as the primary and essential means of fulfilling human objectives. The author posited that technology can manifest as a technique, procedure, gadget, or even in more intricate forms, encompassing material and non-material aspects. Irrespective of the context, the execution of a human purpose is consistently regarded as a method or mechanism.

5. Conclusion

In conclusion, social media addiction among adolescents is a pressing issue that requires attention from parents, educators, and mental health professionals. The addictive qualities of social media and their impact on the emotional well-being of adolescents cannot be ignored. To effectively address this issue, it is crucial to implement preventive measures and strategies that promote healthy online behaviors. Furthermore, additional research and engagement with teenagers are needed to increase their awareness of the psychological and social effects of excessive social media use (Felc, 2022). Social media addiction has a detrimental effect on the mental health and functioning of adolescents (Alhusban et al., 2022). Research has consistently shown that social media addiction is associated with various mental health issues such as depression, anxiety, and disruptions in self-perception. Moreover, the addictive nature of social media can impair decision-making abilities and negatively impact psychological aspects such as self-esteem in

socialization with peers. It is important to note that social media addiction is not limited to adolescents, as individuals of all ages can be susceptible.

In addressing social media addiction among adolescents, it is imperative to have a comprehensive understanding of the underlying psychological elements that lead to the emergence and persistence of this phenomenon. Numerous studies have demonstrated that specific personality traits and psychological variables can render individuals more vulnerable to the onset of social media addiction. For instance, those with extroverted personalities are more inclined to utilize social networking services to enhance social interactions (Sindermann et al., 2020). Furthermore, it has been observed that people who encounter challenges with self-perception, social and emotional functioning, and neuroticism exhibit a heightened susceptibility to the development of social media addiction (Günlü et al., 2023). Social media addiction among adolescents encompasses multifaceted psychological and societal dimensions, necessitating a concerted effort to tackle this issue and foster the psychological welfare of young individuals. One potential strategy for mitigating social media addiction among adolescents involves implementing and promoting healthy practices about social media usage. To effectively regulate the use of social media among adolescents, parents and guardians must establish explicit guidelines and boundaries (Wahid et al., 2022). Promoting open channels of communication and providing educational interventions to adolescents regarding the possible hazards and adverse consequences associated with excessive utilization of social media platforms can serve as effective measures in mitigating the risk of addiction. In conclusion, parents should acquire knowledge regarding technological advancements and engage in educational programs facilitated by educators on responsible Internet usage and social media monitoring. Additionally, educators should take the initiative to arrange courses and seminars for parents. From here, all people, from family to school or university, with the support of the government and community togetherness, can control the social media addiction among adolescents. Ultimately, the harmonization in the community and the well-being of the adolescents are getting better for the future.

References

- Alhusban, A., Mismar, T., Husban, A. A. & Alzoubi, K. H. (2022). Problematic Social Media Use and Academic Performance among University Students: An Evaluation from The Middle East. <https://scite.ai/reports/10.2174/18744346-v16-e2207050>
- Alshammari, A. S. A., Muneer, S. & Tripathi, A. (2022). Do Information Communication Technology and Economic Development Impact Environmental Degradation? Evidence from the GCC Countries. *Frontiers in Environmental Science*, 10, 875932.
- Arthur, W. B. (2009). *The nature of technology: What it is and how it evolves*. Simon and Schuster.
- Atkinson, R. L., Atkinson, R. C., Smith, E. E., Bem, D. J. & Nolen-Hoeksema, S. (1993). *Introduction to psychology* (11th ed.). Orlando, FL, US: Harcourt Brace Jovanovich College Publishers.
- Balakrishnan, V. & Shamim, A. (2013). Malaysian Facebookers: Motives and addictive behaviors unraveled. *Computers in Human Behavior*, 29(4), 1342-1349.
- Blachnio, A., Przepiorka, A., Senol-Durak, E., Durak, M. & Sherstyuk, L. (2017). The role of personality traits in Facebook and Internet addictions: A study on Polish, Turkish, and Ukrainian samples. *Computers in Human Behavior*, 68, 269-275.
- Cheng, C., Wang, H., Sigerson, L. & Chau, C. I. (2019). Do the socially rich get richer? A nuanced perspective on social network site use and online social capital accrual. *Psychol. Bull.*, 145, 734-764.
- Felc, B. (2022). Suggestions of Slovenian students on ways to acquire dementia-related knowledge. *Journal of medical-clinical research & reviews*, 6, 1-7.
- Günlü, A., Oral, T., Yoo, S. & Chung, S. (2023). Reliability and validity of the problematic TikTok Use Scale among the general population. *Frontiers in Psychiatry*, 14, 1068431.
- Hussain, Z. & Pontes, H. M. (2018). Personality, internet addiction, and other technological addictions: A psychological examination of personality traits and technological addictions. In *Psychological, Social, and Cultural Aspects of Internet Addiction*; Bozoglan, B., Ed.; IGI Global: Hershey, PA, USA, 2018; pp. 45-71.
- Kaplan, A. M. & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59-68.
- Kietzmann, J. H., Hermkens, K., McCarthy, I. P. & Silvestre, B. S. (2011). Social media? Get serious!

- Understanding the functional building blocks of social media. *Business Horizons*, 54(3), 241-251.
- Kircaburun, K., Alhabash, S., Tosunta, S. B. & Griffiths, M. D. (2018). Uses and gratifications of problematic social media use among university students: A simultaneous examination of the Big Five of personality traits, social media platforms, and social media use motives. *Int. J. Ment. Health Addict.*, 18, 525-547
- Kuss, D. J. & Griffiths, M. D. (2011). Online social networking and addiction—a review of the psychological literature. *International journal of environmental research and public health*, 8(9), 3528-3552.
- Larson, L. (2021). Social Media Use in Emerging Adults: Investigating the Relationship with Social Media Addiction and Social Behavior. <https://scite.ai/reports/10.24839/2325-7342.jn26.2.228>
- Larsen, R. J., Buss, D. M., Wismeijer, A., Song, J. & Van den Berg, S. (2005). Personality psychology: Domains of knowledge about human nature.
- Lee, K. F., Yang, S. L. S., Kishk, A. A. & Luk, K. M. (2010). The versatile U-slot patch antenna. *IEEE Antennas and Propagation Magazine*, 52(1), 71-88
- Lee, Y. M., Madigan, R., Garcia, J., Tomlinson, A., Solernou, A., Romano, R., Markkula, G., Merat, N. & Uttley, J. (2019). Understanding the messages conveyed by automated vehicles. In Proceedings of the 11th International Conference on Automotive User Interfaces and Interactive Vehicular Applications (pp. 134-143).
- Lipsman, A. (2010). Facebook and Twitter Access via Mobile Browser Grow by Triple-Digits in the Past Year. Retrieved from: http://www.comscore.com/Insights/Press_Releases/2010/3/Facebook_and_Twitter_Access_via_Mobile_Browser_Grows_by_Triple-Digits
- Livingstone, S. & Brake, D. R. (2010). On the rapid rise of social networking sites: New findings and policy implications. *Children & Society*, 24(1), 75-83.
- Mitchell, L. & Hussain, Z. (2018). Predictors of problematic smartphone use: An examination of the Integrative Pathways Model and the role of age, gender, impulsiveness, excessive reassurance-seeking, extraversion, and depression. *Behav. Sci.*, 2018, 8, 74
- Marengo, D., Poletti, I. & Settanni, M. (2020). The interplay between neuroticism, extraversion, and social media addiction in young adult Facebook users: Testing the mediating role of online activity using objective data. *Addict. Behav.*, 102, 106150
- Phares, E. J. (1991). Introduction to psychology. (3rd. ed.) New York: Harper Collins Publishers.
- Pivetta, E., Harkin, L., Billieux, J., Kanjo, E. & Kuss, D. (2019). Problematic smartphone use: An empirically validated model. *Comput. Hum. Behav.*, 100, 105-117. [CrossRef]
- Sahimi, H. M. S., Norzan, M. H., Jaafar, N. R. N., Sharip, S., Ashraf, A., Shanmugam, K., Bistamam, N. S., Arrif, N. E. M., Kumar, S. & Midin, M. (2022). Excessive smartphone uses and its correlations with social anxiety and quality of life among medical students in a public university in Malaysia: A cross-sectional study. <https://scite.ai/reports/10.3389/fpsy.2022.956168>
- Sindermann, C., Riedl, R. & Montag, C. (2020). Investigating the Relationship between Personality and Technology Acceptance with a Focus on the Smartphone from a Gender Perspective: Results of an Exploratory Survey Study. <https://scite.ai/reports/10.3390/fi12070110>
- te Wildt, B. T. & Dieris-Hirche, J. (2019). Psychotherapeutic considerations on online dating: Mating behavior under the spell of algorithms. *Psychotherapeut*, 64, 361-368.
- Wahid, S. S., Ottman, K., Fisher, H. L., Kieling, C., Mondelli, V. & Kohrt, B. A. (2022). Adolescent perspectives on depression as a disease of loneliness: a qualitative study with youth and other stakeholders in urban Nepal. <https://scite.ai/reports/10.1186/s13034-022-00481-y>
- Wakefield, R. L. & Whitten, D. (2006). Mobile computing: a user study on hedonic/utilitarian mobile device usage. *European Journal of Information Systems*, 15(3), 292-300.
- Wang, C. C., Lo, S. K. & Fang, W. (2008). Extending the technology acceptance model to mobile telecommunication innovation: The existence of network externalities. *Journal of Consumer Behavior: An International Research Review*, 7(2), 101-110.
- We are social Hootsuite. (2019). Digital Report 2019. Retrieved from <https://wearesocial.com/globaldigital-report-2019>.
- Zaremohzzabieh, Z., Samah, B. A., Omar, S. Z., Bolong, J. & Shaffril, H. A. M. (2014). Youths' Sustainable Livelihood with Information and Communication Technologies: Toward an ICT for Development Quality Model. *American Journal of Applied Sciences*, 11(6), 947.