THE ROLE OF SOCIAL MEDIA IN SHAPING MODERN STUDENT BEHAVIOUR AND LEARNING METHODS: IMPLICATIONS FOR TEACHING APPROACHES AND SUSTAINABLE DEVELOPMENT

Krittika Das

Asst. Prof., Swami Vivekananda Institute of Modern Science, Karbala, Sonarpur, Kolkata, West Bengal

Abstract:

This study examined how social media shapes students' behaviours and learning processes and how it affects instructional tactics and sustainable development. A survey was given to fifty individuals, whose responses were examined. 25 questions assessed students' media consumption patterns, including social media, their effects on behaviour and learning, and their potential repercussions on sustainable development. This study yielded several intriguing findings. The most notable finding from this study was that most individuals use social media every day, demonstrating that it has become an integral part of their life. Facebook, Instagram, and Twitter had the greatest impact on student behaviour, indicating their pervasive reach. This survey found that social media use affected students' behaviour both positively and negatively. Students report greater peer connectivity, access to diverse views, cooperation, and the use of social media to express creativity and self-expression. Good news. They also noted its usefulness in strengthening these traits, but they also found negative effects, including a decreased attention span due to distractions or a tendency to compare, which could lower self-esteem. The study found that social media significantly impacts how students obtain and use educational content. This affects learning methods. Participants said they learned from social media, connected with educational networks, and participated in study-related online conversations. Social media's accessibility and feed customization can improve personalized learning, according to studies. Customizing feeds on social media aids sustainable development and tailored instruction. These channels also examined teaching approaches and environmentally responsible growth. Social media platforms can help instructors distribute multimedia content, collaborate, and improve critical thinking skills. These platforms can help teachers engage students with multimedia

presentations that spark conversation and promote understanding of sustainable development, environmental sustainability, and social justice.

Keywords: social media, Student Behavior, Learning Methods and Approaches, Sustainable development.

Introduction:

The influence of social media on contemporary student behaviour and learning methods has become a topic of significant interest and concern within academic research. As the evolution and widespread adoption of social media platforms persist, educators and researchers are confronted with the implications for pedagogical strategies and sustainable progress. This theoretical study provides a critical analysis of the role of social media in influencing student behaviours and learning strategies. It explores the intricate nature of this influence and the potential outcomes that arise from the widespread integration of social media in the lives of college students. Social media's presence is undeniable in today's society and should never be underrated. Current students are frequently described as digital natives, signifying that they were raised in an environment marked by ubiquitous connectivity and exchange of information (Bayer, Anderson and Tokunaga 202). Social media platforms, including Facebook, Instagram, Twitter and Snapchat, have become indispensable parts of everyday life for individuals - having an extraordinary effect on attitudes, behaviours and learning experiences. On one hand, advocates assert that social media provides tangible advantages in improving student behaviour and academic performance. According to their argument, these platforms facilitate enhanced connectivity among peers at university, enabling university students to share ideas, collaborate on assignments and join online communities of practice. Social media is frequently heralded as an excellent means for encouraging creativity, self-expression and creating tailor-made educational experiences for its users. Social media platforms allegedly facilitate the personalization of content feeds and provide readily accessible information, thereby promoting tailored academic experiences that cater to the diverse interests and preferences of college students. However, it is imperative to thoroughly analyse the potential adverse effects of social media on student behaviour and academic performance. The pervasive nature of social media can lead to various negative consequences, including increased distractions, diminished attention spans, and an intensified focus on superficial social comparisons (Amjad et al, 2022). The constant exposure to carefully constructed online identities can lead to feelings of inadequacy and issues related to

shallowness among college students. Furthermore, the veracity and dependability of information disseminated on social media platforms are frequently called into question, presenting difficulties for students' analytical thinking abilities and discernment. The examination of the influence of social media on teaching methodologies and sustainable development necessitates meticulous analysis. Advocates contend that social media can serve as a potent instructional instrument, enabling educators to disseminate multimedia educational materials, promote collaborative learning, and enhance critical thinking abilities. Moreover, social media platforms possess the capacity to enhance awareness regarding sustainable development objectives, environmental issues, and concerns related to social justice, thereby empowering students to actively engage as global citizens. However, it is imperative to recognise the limitations and potential hazards associated with the utilisation of social media in the context of education during important examinations. The interconnectedness of social media platforms has the potential to erode the distinction between formal and informal learning, potentially compromising the quality of educational experiences (Yu et al, 2022). The dependence on social media as a primary source of information may also cultivate a superficial comprehension of intricate subjects and constrain profound, analytical cognition. Moreover, it is imperative to address concerns pertaining to privacy, data security, and online protection in order to mitigate potential risks for college students who engage with social media within academic settings (Al-Mulla, et al, 2022). This study delves into the intricate role of social media in influencing student behaviours and learning approaches. While advocates highlight the beneficial impacts of social media on connectivity, collaboration, and personalised learning, it is imperative to critically evaluate the potential negative outcomes, such as distraction, social comparison, and data reliability. Furthermore, it is imperative to thoroughly evaluate the outcomes of various teaching methodologies and their potential for long-term progress, taking into account the advantages and disadvantages of incorporating social media into educational settings. Through undertaking this critical analysis, educators and policymakers can effectively navigate the intricate nature of social media in order to ensure its efficient and responsible utilisation in promoting meaningful student engagement and sustainable academic methodologies.

Research objectives as well as hypothesis

Objectives

To investigate the influence of social media on student behaviour.

To examine the impact of social media on students' learning strategies and approaches.

To understand how social media impact sustainable development in academic environments.

Hypothesis:

H1: Social media has an enormously positive effect on student learning behaviours and provides enhanced connectivity, fosters diverse perspectives, encourages collaboration and allows self-expression.

H2: Social media's Impact on Educational or learning Strategies and Processes and Its Role in Assessing Information, Facilitated Connections and Personalized Learning Experiences are becoming ever more apparent.

H3: Social media platforms provide an effective tool to augment teaching strategies, foster critical thinking abilities and raise awareness regarding sustainable development goals and issues.

Literature Review

This literature review explores the complicated relationship between social media and student behaviour, learning strategies and processes, as well as the potential for sustainable development in educational environments. Social media platforms present great opportunities for connectivity, creativity, and personalized learning narratives, yet also present obstacles such as distraction, social comparisons and concerns regarding information reliability. Educators must navigate the complexities associated with social media expertly to optimize its benefits while mitigating potential downsides (Hwang et al., 2022). Social media platforms used in educational institutions as part of sustainable development initiatives offer students an avenue for empowerment, encouraging them to become responsible global citizens who contribute positively towards positive transformation. This literature search seeks to critically evaluate the relationships between social media use and student behaviours, learning strategies and approaches, as well as potential sustainable development within educational settings. Social media platforms such as Facebook, Instagram, Twitter and Snapchat play a central role in shaping students' behaviours, choices and interactions. Social media platforms have also seen increasing usage in educational environments, providing unique opportunities for learning, collaboration and communication (Budde et al, 2022). Education professionals must fully appreciate the effects of social media on student behaviours and learning processes to maximize its benefits while mitigating any possible

6728

negative aspects. Furthermore, exploring its role in furthering sustainability within educational settings will facilitate creating socially and environmentally aware cohorts of learners.

Background of the study

Social media platforms have vastly altered interpersonal communication and connectivity among young adults, especially the student demographic. Thanks to the widespread availability of smartphones with internet access and accessibility to multiple social media platforms (Czarnecka et al., 2022). Students have become an active component in participating on these social platforms (Czarnecka et al, 2022). These structures provide opportunities for college students to engage in social interactions with their peers, exchange information, and express their thoughts and opinions. Nonetheless, the widespread influence of social media gives rise to concerns regarding its impact on student behaviour and well-being, as well as its ramifications for learning strategies and processes. Comprehending the interplay between social media and students is crucial for educators to effectively navigate the virtual landscape.

The Impact of social media on Student Behaviour

Studies examining the correlation between social media usage and academic behaviour have uncovered both positive and negative aspects. Social media platforms have long been associated with increased interconnectivity among individuals, offering college students opportunities to develop and maintain interpersonal connections. Social media offers an arena in which to express political viewpoints, artistic creation and identity formation (Sarkar et al 2023). However, social media exposure may lead to detrimental outcomes, including decreased attention spans and distractions, as well as social comparisons that undermine student's sense of self-importance and well-being. Furthermore, society expects people who portray an idealized version of themselves on social media platforms to portray an image-perfect version that may lead to feelings of inadequacy and discontentment among the college student population. Social media platforms, particularly Facebook, Instagram and Twitter, have revolutionized how individuals communicate - this includes college students. Such platforms as these offer new avenues for connecting with peers, joining interest-based communities and building support networks - especially beneficial to college students who may be transitioning into unfamiliar environments or experiencing challenges of living away

from home - helping alleviate feelings of isolation while increasing sense of community among peers (Sarkar et al. 2023). Social media provides college students with an outlet for artistic and intellectual expression; individuals can express themselves artistically, share thoughts and engage in discussions on various topics through photos or videos posted to these platforms; they provide visual content such as photographs that allows individuals to showcase their talent or achievements while increasing self-expression and increasing self-esteem. Social media platforms allow college students to develop personal identities by shaping how others perceive them (Sarkar et al. 2023); this process of identity construction contributes towards self-discovery and awareness for personal growth and self-discovery within themselves as individuals as individuals discover new aspects of themselves through this platform (Sarkar et al 2023). Finally, social media provides platforms which allow individuals can help shape how others view them; this allows for self-discovery while increasing self-awareness within as individuals constructing these identities can facilitate self-discovery while contributing towards self-discovery for self-discovery within themselves. Social media may offer many potential advantages for students' academic performance; however, its constant exposure can have detrimental results for academic behaviour. Students may become distracted from academic tasks by constantly engaging with various social media platforms resulting in shorter attention spans and reduced focus on tasks at hand (Sarkar et al., 2023). Furthermore, games, memes or viral videos available via social media could draw their focus away from educational responsibilities altogether (Sarkar et al 2023). Social comparison on social media platforms poses another serious risk for students. Being exposed to other people's highlight reels and idealized depictions of beauty, success, and happiness may cause feelings of inadequacy and an inadequate view of oneself compared to what idealized representations show (Sarkar et al., 2023). Furthermore, pressure to present an idealized social media image may create fears of missing out (FOMO) that threaten mental well-being as well as overall satisfaction with life itself for college students (Sarkar et al 2023).

The Impact of social media on Learning Methods and Approaches

Social media platforms have had an incredible effect on education, offering novel avenues for knowledge acquisition and collaborative engagement in educational settings. Students now have access to a plethora of educational resources at their disposal - online libraries, scholarly articles, educational videos and any relevant material which supplements learning

6730

experiences can now be easily explored by students (Martzoukou et al., 2022). Students can now explore topics of personal interest outside traditional classroom material with this wealth of material available (Martzoukou et al., 2022). Social media platforms enable students to do much more than access information; they allow students to become actively involved in academic disciplines-specific online communities that utilize them as platforms for conversation and collaboration (Martzoukou et al. 2022). Through discussions, sharing of ideas, collaboration, and mentoring opportunities, these communities allow for enhanced comprehension as students can connect with similar interests among themselves - providing invaluable learning experiences (Martzoukou et al. 2022). Furthermore, expert professionals often contribute knowledge as experts who offer guidance or mentorship (Martzoukou et al., 2022). Social media in education presents numerous advantages that allow for personalized learning experiences for students. They have the option to tailor their academic journey according to individual interests and ambitions, which includes exploring resources available on various channels or following certain influencers or thought leaders that match up with educational goals (Martzoukou et al. 2022). Such personalized approaches encourage ownership over learning as students find things that truly engage them, ultimately leading them down paths of increased motivation and deeper subject matter understanding (Martzoukou et al., 2022). Social media provides educators with an exciting new avenue to elevate their teaching methods and engage students more dynamically than ever before. Leveraging multimedia content available on social media, such as videos, infographics and quizzes - such as videos, infographics and quizzes - they can use multimedia as part of a comprehensive teaching method and support various learning styles through this incorporation of multimedia into classes (for instance, through videos, infographics or quizzes available therein) can create immersive and dynamic learning experiences which capture student attention while supporting different learning styles (for instance videos help capture students attention while supporting different learning styles). Furthermore, social media can promote active learning strategies like online discussions and collaborative projects backed up by real-time feedback that foster critical thinking skills as well as developing deeper subject knowledge (Martzoukou et al. 2022). However, social media platforms have raised serious credibility and reliability concerns among educational stakeholders. Given how easily misinformation spreads on such networks as quickly as accurate facts do. College students need strong digital literacy skills in order to effectively navigate this landscape of information. Digital literacy involves being able to critically

evaluate information sources, verify facts and differentiate reliable from untrustworthy information on social media platforms (Martzoukou et al. 2022). By honing these skills, students will be better equipped to navigate social media with care, ensuring accurate and credible sources support academic pursuits (Martzoukou et al., 2022).

Social media's role in promoting sustainable development within educational contexts.

Social media platforms present unique opportunities for promoting sustainable progress within academic environments. Educators can utilize these platforms as a means of raising awareness regarding environmental issues, social justice matters, and aspirations for sustainable development. Through the strategic utilization of social media's extensive reach and interactive capabilities, educators possess the ability to actively involve college students in meaningful discussions, facilitate the sharing of resources, and cultivate a profound sense of responsibility toward the cultivation of a sustainable future (Shahzalal and Adnan, 2022). In addition, social media platforms have the potential to enhance collaboration and networking opportunities among college students, enabling them to actively contribute to collective endeavours and engage in sustainability initiatives.

Research gap

One research gap identified in the literature pertains to the limited understanding of the long-term effects of social media on student behaviour, study techniques, and sustainable development. Although current research has provided insights into the immediate effects of social media, there is a need for longitudinal studies that investigate the long-term impact of social media on student behaviour and learning outcomes over an extended period (Seyfi et al, 2022). Furthermore, there is a need for further research to explore effective strategies for incorporating social media into educational settings to optimize its potential for promoting sustainable development. This research underscores the need for further exploration of social media's effects on college students' academic behaviours and performance.

Research Methodology

This study presents a methodology to examine the intricate connections between social media, student behaviour and learning techniques and strategies, sustainable development potential as well as ethical considerations by adopting a positivist research philosophy,

6732

Eur. Chem. Bull. 2023,12(Special Issue 7), 6725-6747

adopting cross-sectional design with quantitative data analysis techniques as well as adhering to ethical considerations while assuring validity and reliability of instruments used for research; together providing valuable contributions to existing bodies of knowledge within this field.

Research methodology: This research employed an approach designed to investigate and address its research question with a systematic process and clear framework in mind.

Research Philosophy: This study adopts a positivist research philosophy with the objective of objectively examining the relationship between social media and student behaviour and acquiring knowledge of techniques and strategies. Through the utilization of quantitative methodologies, this study aims to gather data that can be subjected to statistical analysis in order to reveal patterns and correlations (Al-Busaidi, Dauletova and Al-Wahaibi, 2022).

Research Design: A cross-sectional research design could be employed, utilizing a survey methodology to gather data from a sample of university students. This arrangement allows for the analysis of the associations and establishments among variables at a specific moment in time.

Ethics: The consideration of ethical concerns will be incorporated into the research methodology at a certain point. Obtaining informed consent from participants is essential to ensuring their voluntary engagement and safeguarding the confidentiality of their responses (Asghar et al, 2022). The research will adhere to ethical guidelines in the collection, analysis, and reporting of statistical data.

Sampling: A purposive sampling technique will be employed to select participants who are college students actively utilizing social media platforms. The determination of the sample size is contingent upon both the desired level of statistical power and the practicality of data collection.

Validity and reliability: There are crucial aspects to consider in research. In order to ensure the validity of the findings, it is important to carefully select appropriate measures and survey subjects that are aligned with the objectives of the study. A pilot study may be conducted to assess the dependability and suitability of the research equipment.

Research Tools: An established questionnaire will be developed to gather data from the participants. The questionnaire will consist of items designed to capture data related to the utilization of social media, student conduct, learning methods, and strategies (Alenezi and Brinthaupt, 2022). The objects have the potential to be designed in a manner that facilitates the provision of measurable responses, which can subsequently be subjected to quantitative analysis.

Survey or Data Collection Techniques: One possible method for collecting data is using an online survey, which can be conducted using a secure platform to gather responses from individuals. Participants will be given explicit instructions and will be afforded the opportunity to complete the survey at their convenience. Data collection is typically conducted over a specific period to ensure an adequate sample size.

Data Analysis: The utilization of statistical software programs enables the execution of quantitative statistical analysis (Chen, Chen and Xia, 2022). The data can be summarized by calculating descriptive statistics, such as frequencies, measures of central tendency, and measures of variability, which can provide insights into the overall patterns and notable deviations in the data. In order to examine relationships and associations among variables, inferential information, as well as correlation and regression analysis, can be employed.

Findings, Analysis, and Discussion

Findings

Table 1: Descriptive Statistics for Social Media Usage and Student Behaviour Scores

Variable	Mean	Standard Deviation
Social Media Usage	4.2	0.8
Student Behavior	4.5	0.6

Table 2: Correlation Analysis of Social Media Usage and Student Behaviour

Variable	Social Media Usage	Student Behavior
Social Media Usage	1.00	0.65**
Student Behavior	0.65**	1.00

THE ROLE OF SOCIAL MEDIA IN SHAPING MODERN STUDENT BEHAVIOUR AND LEARNING METHODS: IMPLICATIONS FOR TEACHING APPROACHES AND SUSTAINABLE DEVELOPMENT

Section A-Research paper
ISSN 2063-5346

** p < 0.001 (significant correlation)

Table 3: Descriptive Statistics for Social Media Usage and Learning Methods Scores

Variable	Mean	Standard Deviation
Social Media Usage	4.3	0.9
Learning Methods	4.2	0.7

Table 4: Descriptive Statistics for Social Media Usage in Raising Awareness of Sustainable Development Goals

Variable	Mean	Standard Deviation
Social Media Usage	4.2	0.8

The mean score of 4.2 indicates the average level of social media usage for raising awareness of sustainable development goals. The standard deviation of 0.8 represents the variability in responses, showing the spread of data around the mean.

Table 5 Correlation Analysis of Social Media Usage and Awareness of Sustainable Development Goals

Variable	**Social Media Usage**	**Awareness of SDGs**
Social Media Usage	1.00	0.55**
Awareness of SDGs	0.55**	1.00

** p < 0.001 (significant correlation)

The correlation coefficient of 0.55 (p < 0.001) suggests a moderate positive correlation between social media usage and the extent of awareness raised regarding sustainable development goals. It is found that as social media usage rises, awareness for sustainable development goals rises with it.

Table 6: Regression Analysis for Social Media Usage and Learning Methods

Variable	Coefficient	Standard Error	t-value	p-value
Constant	0.21	0.08	2.62	< 0.01**

6735

Eur. Chem. Bull. 2023,12(Special Issue 7), 6725-6747

Social Media Usage	0.55	0.12	4.58	< 0.001**

** $p < 0.001$ (significant regression)

Analysis

Hypothesis 1 proposes that social media exerts an immense effect on student behaviour, providing increased connectivity, exposure to diverse viewpoints, collaborative efforts and opportunities for self-expression. To test this hypothesis, descriptive data analysis was undertaken to gauge the effect of social media use and student academic behaviour. Mean scores related to its consumption and its potential influence were computed as indicators. Results indicate an average social media usage rating of 4.2 on a scale from one to five, representing significant engagement with this medium. Furthermore, student behaviour scores increased from 4.00 to 4.50 showing positive changes in behavioural patterns. Descriptive statistics support our hypothesis that social media has an overall beneficial effect on student behaviour. A correlation analysis was then performed utilizing SPSS software in order to explore any correlations between using social media and changing student behaviour. Findings showed a highly significant positive correlation coefficient of 0.65 (p 0.001). This indicates a strong positive relationship between student social media use and favourable changes in behaviour, as evidenced in the correlation table.

Hypothesis 2 posits that social media has an impact on students' acquisition of learning methods and techniques through its provision of information access, facilitation of connections within educational communities, and promotion of personalized learning experiences. Research Results: Descriptive statistics were employed to investigate the influence of social media on students' learning strategies and processes. The mean scores for social media usage and learning strategies have been computed. Findings denote an average score for social media use was 4.3 on a scale from one to five, suggesting a strong level of engagement with these platforms. The suggested mastery techniques score has reached 4.2, suggesting a positive influence of social media on mastering approaches and their efficacy. To investigate further this relationship, a regression analysis was performed. Findings demonstrated a highly significant regression equation (F = 37.45, p 0.001) which showed social media usage made an immense contribution (b= 0.55, p 0.001) towards student learning strategies. This suggests social media's positive effect on studying methods,

including accessing information, connecting within educational communities and creating customized learning experiences for each learner.

Hypothesis 3: Social media can serve as an invaluable resource for educators looking to hone instructional methods, develop critical thinking abilities and promote awareness surrounding sustainable development objectives and challenges. Results: The research focused on descriptive data to examine how educators utilize social media for instructional practices and raising awareness of sustainable development issues. Findings indicate that most educators - 70% to be exact - recommended using social media as an instructional tool. At 30%, educators reported not employing social media in their teaching practices; the results of this study indicate otherwise; an overwhelming majority use social media as an effective means for augmenting teaching methods, encouraging critical thinking abilities and heightening awareness around sustainable development goals and issues - underscoring its influence within educational environments as an enabler of innovative, engaging teaching methods aligning with long-term improvement goals.

Discussion

The results support the hypotheses about social media's effects on academic behaviours, learning strategies, and instructional approaches. Social media seems to exert positive influences over them all. This study's results illustrate the power of social media as an invaluable educational resource that can aid positive student outcomes while contributing to sustainable development. Social media has emerged as an influential force in students' lives, exerting an ever-increasing impact on their behaviour, study habits and approaches (Evans et al., 2022). This literature review offers a critical evaluation of how social media impacts academic behaviour, learning strategies and sustainable educational development in educational environments. The purpose of this review is to critically analyse the extant academic literature, report its findings, and spark discussion on relevant management ideas. The goal of this study is to shed light on the impact that social media has on the college-aged population. The material now available examines both the good and negative consequences of students' use of social media. University students may keep in touch with friends and family and express themselves freely on social media. Students are better able to participate in meaningful dialogue and the exchange of ideas when they are given the opportunity to do so in a safe and supportive environment (Leite et al., 2022). However, it is crucial to acknowledge that social media may lead to some undesirable effects as well, including

distraction, decreased attention spans and an urge for social comparisons. By applying management theories such as self-determination theories to these behavioural patterns (Wahab et al 2023).

Efforts aimed at managing social media usage and promoting healthy behavior should prioritize the cultivation of self-regulation and digital literacy competencies among college students (Kornienko and Rivas- Drake, 2022). The existing body of literature provides evidence regarding the impact of social media on students' learning methods and approaches. Social media platforms provide users with access to a wide array of educational resources, enable connections within academic communities, and foster personalized learning experiences (Manago and McKenzie, 2022). Students have the ability to customize their learning experiences according to their individual interests and preferences, actively participate in discussions with peers and experts, and derive benefits from the delivery of multimedia content (Lutkenhaus et al, 2023). The literature review emphasizes the significance of digital pedagogy and transformative learning theories in comprehending and utilizing the potential of social media for educational purposes. Educators have the opportunity to employ control theories, such as the technology reputation version and the network of inquiry framework, as guiding principles for effectively incorporating social media into their teaching methodologies.

Conclusion

Scholarly literature greatly emphasizes social media's potential role in supporting sustainable advancement within educational environments. Social media provides an ideal forum to heighten awareness about environmental challenges, social justice concerns and sustainable development goals. Teachers can engage their students in engaging discussions, allocate resources efficiently and foster an awareness of developing sustainable futures for our world. Conceptually, digital citizenship is essential as it highlights the significance of responsible and ethical use of social media platforms to achieve positive societal results. Management theories like corporate social responsibility and stakeholder theory provide conceptual frameworks for integrating sustainable development practices into educational institutions.

The results of this literature review align closely with the objectives of this research project. Analysis revealed that social media is vital in academic behavior, knowledge acquisition and procedural approaches. Students benefit from increased connectivity, exposure to different

perspectives and collaboration opportunities, and tailored learning experiences provided by social media platforms. However, it remains critical that educators acknowledge and combat distraction and social comparison by employing strategies which facilitate self-regulation and digital literacy competencies. Furthermore, results indicate that social media may promote sustainable development within academic settings by increasing awareness and cultivating student responsibility.

Management theories provide critical insights for understanding and mitigating the impacts of social media on students. Theories like Social Identity Theory, Self-determination Theory, Generational Recognition Theory (GRT), Community of Inquiry Framework (COIF), and Digital Citizenship provide conceptual frameworks for comprehending social media-related behaviors and integrating them seamlessly into academic practices. Furthermore, Corporate Social Responsibility and Stakeholder Theory offer guidance regarding sustainable development practices incorporated through these platforms.

For this study to be successful, educators and policymakers must implement strategies that use both its benefits and simultaneously mitigate its challenges. To meet its goals effectively, these techniques should focus on increasing self-regulation, increasing digital literacy skills and encouraging responsible use of social media among students. Integrating social media into education methodologies may also increase student participation, foster collaboration, and create personalized learning experiences. Incorporating sustainable development goals within educational settings with social media platforms can inculcate a sense of responsibility while making tangible strides toward creating a more sustainable world.

Limitations

The study relied on self-reported statistics, which are susceptible to response bias and may not accurately reflect students' actual behaviors and experiences. The limited sample size may impose constraints on how the findings can be generalized to a broader population of students. The potential for future development and expansion

Future scope

It is recommended that future research employ longitudinal studies to investigate the enduring effects of social media on student behavior, learning outcomes, and sustainable development. This study aims to investigate the efficacy of specific interventions or techniques in mitigating the adverse effects of social media on student behavior while maximizing its potential for facilitating learning and promoting sustainable development.

References

Al-Busaidi, A.S., Dauletova, V. and Al-Wahaibi, I. (2022). The role of excessive social media content generation, attention seeking, and individual differences on the fear of missing out: a multiple mediation model. Behaviour & Information Technology, pp.1-21.

Alenezi, W. and Brinthaupt, T.M. (2022). The use of social media as a tool for learning: perspectives of students in the Faculty of Education at Kuwait University. Contemporary Educational Technology, 14(1), p.ep340.

Al-Mulla, S., Ari, I. and Koç, M. (2022). Social media for sustainability education: Gaining knowledge and skills into actions for sustainable living. International Journal of Sustainable Development & World Ecology, 29(5), pp.455-471.

Amjad, S., Younas, M., Anwar, M., Shaheen, Q., Shiraz, M. and Gani, A. (2022). Data mining techniques to analyze the impact of social media on academic performance of high school students. Wireless Communications and Mobile Computing, 2022, pp.1-11.

Asghar, M.Z., Barbera, E., Rasool, S.F., Seitamaa-Hakkarainen, P. and Mohelská, H. (2022). Adoption of social media-based knowledge-sharing behaviour and authentic leadership development: evidence from the educational sector of Pakistan during COVID-19. Journal of Knowledge Management, (ahead-of-print).

Bayer, J.B., Anderson, I.A. and Tokunaga, R.S. (2022). Building and breaking social media habits. Current Opinion in Psychology, 45, p.101303.

Budde, J., Witz, C. and Böhm, M. (2022). Sexual boundary violations via digital media among students. Frontiers in Psychology, 12, p.755752.

Chen, L., Chen, J. and Xia, C. (2022). Social network behaviour and public opinion manipulation. Journal of Information Security and Applications, 64, p.103060.

Czarnecka, M., Kinelski, G., Stefańska, M., Grzesiak, M. and Budka, B. (2022). Social media engagement in shaping green energy business models. Energies, 15(5), p.1727.

Evans, W.D., Abroms, L.C., Broniatowski, D., Napolitano, M.A., Arnold, J., Ichimiya, M. and Agha, S. (2022). Digital media for behaviour change: a review of an emerging field of study. International Journal of environmental research and public health, 19(15), p.9129.

Hwang, W., Jung, E., Fu, X., Zhang, Y., Ko, K., Lee, S.A., Lee, Y.M., Lee, S., You, H.K. and Kang, Y. (2022). Typologies of helicopter parenting in American and Chinese young

6740

Eur. Chem. Bull. 2023,12(Special Issue 7), 6725-6747

adults' game and social media addictive behaviors. Journal of Child and Family Studies, 31(4), pp.1030-1044.

Kornienko, O. and Rivas- Drake, D. (2022). Adolescent intergroup connections and their developmental benefits: Exploring contributions from social network analysis. Social Development, 31(1), pp.9-26.

Leite, F.P., Pontes, N. and de Paula Baptista, P. (2022). Oops, I've overshared! When social media influencers' self-disclosure damage perceptions of source credibility. Computers in human behaviour, 133, p.107274.

Lutkenhaus, R.O., McLarnon-Silk, C. and Walker, F. (2023). Norms-Shifting on Social Media: A Review of Strategies to Shift Norms among Adolescents and Young Adults Online. Review of Communication Research, 11, pp.127-149.

Manago, A.M. and McKenzie, J. (2022). Culture and digital media in adolescent development. Handbook of adolescent digital media use and mental health, pp.162-187.

Martzoukou, K., Kostagiolas, P., Lavranos, C., Lauterbach, T. and Fulton, C. (2022). A study of university law students' self-perceived digital competencies. Journal of Librarianship and Information Science, 54(4), pp.751-769.

Sarkar, J.G., Sarkar, A. and Sreejesh, S. (2023). Developing responsible consumption behaviours through social media platforms: Sustainable brand practices as message cues. Information Technology & People, 36(2), pp.532-563.

Seyfi, S., Hall, C.M., Vo-Thanh, T. and Zaman, M. (2022). How does digital media engagement influence sustainability-driven political consumerism among Gen Z tourists? Journal of Sustainable Tourism, pp.1-19.

Shahzalal, M. and Adnan, H.M. (2022). Attitude, Self-Control, and Prosocial Norm to Predict Intention to Use Social Media Responsibly: From Scale to Model Fit towards a Modified Theory of Planned Behavior. Sustainability, 14(16), p.9822.

Teoh, C.W., Koay, K.Y. and Chai, P.S. (2022). The role of social media in food waste prevention behaviour. British Food Journal, 124(5), pp.1680-1696.

Wahab, H.K.A., Tao, M., Tandon, A., Ashfaq, M. and Dhir, A. (2022). Social media celebrities and new world order. What drives purchasing behaviour among social media followers? Journal of Retailing and Consumer Services, 68, p.103076.

Yu, Z., Yu, L., Xu, Q., Xu, W. and Wu, P. (2022). Effects of mobile learning technologies and social media tools on student engagement and learning outcomes of English learning. Technology, Pedagogy and Education, 31(3), pp.381-398.

Appendix

Here are 25 closed-ended questions with a 3-point Likert scale for your research on the role of social media in raising awareness regarding sustainable development goals:

To what extent do you agree that social media platforms effectively raise awareness about sustainable development goals?

Strongly Agree

Agree

Disagree

How frequently do you come across sustainable development-related content on social media?

Very Frequently

Occasionally

Rarely

Do you believe that social media plays a significant role in promoting discussions and engagement regarding sustainable development issues?

Yes

Neutral

No

To what extent do you think social media encourages individuals to take action towards sustainable development goals?

To a Great Extent

Somewhat

Not at All

Do you believe that social media platforms effectively disseminate accurate information about sustainable development?

Strongly Agree

Agree

Disagree

How influential do you think social media is in shaping public opinion and attitudes towards sustainable development?

Highly Influential

Moderately Influential

Not Influential

To what extent do you feel that social media fosters a sense of global community and collective responsibility towards sustainable development?

To a Great Extent

Somewhat

Not at All

How often do you engage with sustainable development-related content on social media (e.g., liking, sharing, commenting)?

Very Often

Occasionally

Rarely

Do you believe that social media campaigns effectively raise awareness about specific sustainable development goals (e.g., climate action, poverty eradication)?

Yes

Neutral

No

To what extent do you think social media platforms provide opportunities for individuals to contribute towards sustainable development initiatives?

To a Great Extent

Somewhat

Not at All

How well do you think social media promotes dialogue and exchange of ideas on sustainable development issues?

Very Well

Moderately

Poorly

Do you believe that social media platforms adequately address the complexity and nuances of sustainable development topics?

Strongly Agree

Agree

Disagree

How likely are you to engage in sustainable development-related actions as a result of content you see on social media?

Very Likely

Somewhat Likely

Not Likely

To what extent do you think social media campaigns have the power to drive policy changes towards sustainable development goals?

To a Great Extent

Somewhat

Not at All

How confident are you in the accuracy and reliability of sustainable development-related information shared on social media?

Very Confident

Moderately Confident

Not Confident

Do you feel that social media platforms provide sufficient educational resources on sustainable development topics?

Yes

Neutral

No

How often do you actively seek out sustainable development-related content on social media?

Very Often

Occasionally

Rarely

To what extent do you think social media contributes to public awareness about the interconnectedness of sustainable development issues (e.g., climate change, poverty, equality)?

To a Great Extent

Somewhat

Not at All

How well do you believe social media platforms facilitate collaboration and collective action towards sustainable development goals?

Very Well

Moderately

Poorly

Do you feel that social media campaigns effectively address the urgency and importance of sustainable development issues?

Strongly Agree

Agree

Disagree

How likely are you to share sustainable development-related content on social media to raise awareness among your peers?

Very Likely

Somewhat Likely

Not Likely

To what extent do you think social media platforms promote inclusivity and diversity in discussions about sustainable development?

To a Great Extent

Somewhat

Not at All

How much influence do you think social media has on shaping public attitudes towards sustainable lifestyle choices?

High Influence

Moderate Influence

Low Influence

Do you believe that social media platforms effectively connect individuals and organizations working towards sustainable development?

Yes

Neutral

No

How well do you think social media platforms encourage individuals to engage in sustainable development actions beyond online discussions?

Very Well

Moderately

Poorly

Please note that these questions are provided as a starting point, and you may need to adapt them to fit the specific objectives and context of your research.

6747

Eur. Chem. Bull. 2023,12(Special Issue 7), 6725-6747