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The Effects of Social Media Fatigue on Students' Academic Achievement and Practical Competency in China

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ABSTRACT

The rapid rise in social media usage among young adults in China has raised significant concerns regarding its psychological and academic implications. Current statistics indicate that 65.3% of the 72% of social media users in China are young adults, placing this demographic at the forefront of digital exposure. A notable consequence of this phenomenon is a discernible decline in academic performance, which is particularly alarming given China's highly competitive and performance-oriented educational environment. Failure to meet academic benchmarks, as defined by national standards, has led to long-term consequences. In response to these issues, this study investigates the underlying factors contributing to social media fatigue and their influence on academic achievement and practical competencies among young adults. The study utilized a quantitative research method, distributing questionnaires to 200 university students in China using convenience sampling, an appropriate approach for early-stage, exploratory research. The three primary variables identified as contributing to social media fatigue are social media confidence, privacy concerns, and information overload. These variables were analysed using Pearson correlation analysis, which revealed positive correlations with academic outcomes, ranging from $r = 0.4$ to $r = 0.9$, suggesting moderate to strong relationships. Social media has also intensified self-presentation pressures, leading users to portray their idealized versions. This, in turn, fosters upward social comparison, eroding self-worth and identity. Moreover, the perceived risk of privacy breaches and the constant bombardment of information contribute to fatigue, ultimately impairing students' ability to perform both academically and practically.

Keywords: *Social media fatigue, students, academic achievement, practical competency, China.*

INTRODUCTION

Contemporary social media users are virtually connected to these platforms around the clock, leading to a profound interconnection between their online and offline lives. This intertwining of digital and physical spheres underscores the significant role social media plays in shaping individual experiences and social interactions. Ultimately, the shift of interaction from Web 1.0 to Web 2.0 has illustrated the dynamic nature of information technologies, which then significantly ushered in the many functions of social media platforms that have become an essential tool for both individuals and organizations (Ayub et al., 2024). The emergence of this novel lifestyle introduces varying levels of stress and a multitude of distractions for individuals. Previous studies have explored the detrimental effects of social media fatigue, concluding that as social media fatigue deepens, users become less enthusiastic about their lives and less productive, suggesting that immersion in social media may have unavoidable consequences for users (Noonan, 2022; Baj-Rogowska, 2022). As a distinct demographic group, students demonstrate a marked propensity to adopt new media technologies and

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exhibit proficient usage skills. Consequently, they increasingly emerge as active participants in social media platforms, dedicating more time and resources to online social interaction than other demographic groups (Rampersad & Althiyabi, 2020; Shafie, 2023). Social media fatigue seriously affects the academic performance of young adults and has become a problem that must be faced in the development of social life and social media. Social media usage among students is highly prevalent and widely accepted across Southeast Asian countries (Xuan, 2020; Mohammed, Ibrahim & Yunus, 2021; Zalianty, Susanti, & Mangkey, 2025).

This trend is largely influenced by the region's large population and rapid adoption of emerging technologies. Additionally, a report by China Business (2025) highlights that among the key reasons behind China's successful venture in the digital economy was primarily due to its massive consumer base, which encompasses over one billion internet users nationwide. This huge ecosystem creates limitless potential and demand for new digital services that Western economies have not tapped (China Business, 2025).

As of 2025, several key platforms dominate China's social media landscape, each tailored to meet its vast user base's diverse needs and preferences. With over 1.3 billion monthly active users, WeChat remains the most dominant platform. Functioning as a comprehensive "super app," WeChat integrates messaging, social networking, mobile payments, and e-commerce services (Zhang, 2024). Douyin, the Chinese equivalent of TikTok, has over 786 million monthly active users and is especially popular among younger demographics. It is a major platform for short-form videos and social commerce (Junjie, 2025). Sina Weibo, often compared to Twitter, records more than 605 million users and is widely utilized for microblogging, real-time news, and public discourse (Weibo Corporation, 2023). Another social media platform that has received a phenomenal response from young female users in China is Xiaohongshu, or RedNote, where in 2025, its subscribers have consistently climbed to approximately 300 million. Meanwhile, Kuaishou, a short-video platform similar to TikTok where its appeal on live streaming and interactive content has also consistently proven to have a strong engagement in lower-tier cities and rural areas all over China.

Figure 1 illustrates the projected trends in social media usage in China from 2019 to 2027. It highlights that instant messaging remains the most widely used function, followed by video consumption, live streaming, and digital payment activities, underscoring the multifunctional nature of Chinese social platforms.

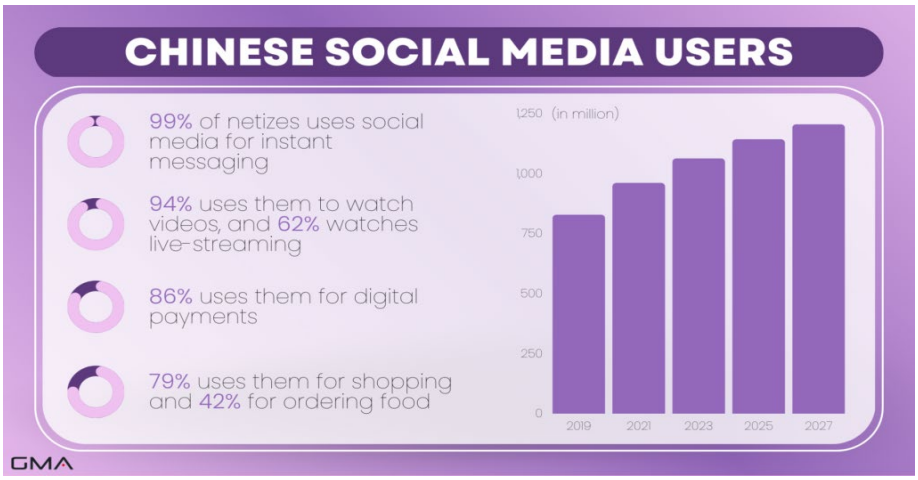

Figure 1: Social media usage in China from 2019 to 2027 (Verot, 2025)

Shanmugasundaram and Tamilarasu (2023), in their study on the impact of digital technology, social media, and artificial intelligence on cognitive functions, revealed that excessive use of social media can interfere with academic performance. This negative impact has also yielded a similar result among students who used multiple digital devices simultaneously and had lower comprehension scores than those who used only one device (Rosen et al., 2013). Meanwhile, on a positive note, Artificial Intelligence (AI) embedded on the Internet and social media tools can help students, teachers, and researchers overcome academic writing challenges, boost research productivity, and improve efficiency. Nowadays, education focuses more on the use of technology (Sharipudin et al., 2024). Regardless of the impact, technology in education is inevitable, and educational institutions face increasing pressure to integrate emerging technologies into their curricula. A notable example is the recent initiative by the Chinese government to incorporate artificial intelligence (AI) into the primary school syllabus, which has positioned China as a regional leader in technological adoption (Huaxia, 2025).

Artificial Intelligence (AI) can exhibit behaviours reminiscent of human actions; however, it fundamentally lacks inherent human qualities. While AI can generate outputs that appear accurate, it is important to recognize that these outputs can also be misleading. While AI tools can assist in crafting well-organised, grammatically precise, and appropriately referenced academic papers, the validity and reliability of their research findings are questionable. This limitation arises from the inability of AI-generated content to fully align with the essential objectives of research and education (Wang & Yuan, 2024). Excessive engagement with multiple social media platforms has contributed to rising mental health concerns among students in China.

In the context of social networking platforms, users are required to efficiently process substantial volumes of online information promptly (Zheng & Ling, 2021). Individuals are likely to encounter various forms of overload, including social overload, system feature overload, and information overload, which can adversely affect their cognitive processing and overall well-being (Fu et al., 2020; Whelan et al., 2020). Such overload could potentially lead social media users to experience fatigue (Fu et al., 2020; Shokouhyar et al., 2018; Xie & Tsai, 2021). Accordingly, students who have been consistently exposed to social media overload would develop digital pressure, which could negatively affect their mental well-being and academic performance. With both negative connotations on social media and mental health, it would then lead to the students' developing depression and anxiety (Kolhar et al., 2021). Therefore, investigating the relationship between social media fatigue and academic achievement is essential to better understand the broader consequences of problematic social media use.

While research on social media fatigue (SMF) has been extensively conducted in Western contexts, particularly in developed countries like the United States and the United Kingdom, studies focusing on SMF within China are still in their nascent stages (Xiao & Mou, 2019; Liu & He, 2021; Ali et al., 2021). Western nations have previously grappled with the challenges of SMF, often linked to heightened mental health issues among students. In contrast, although Asian countries, including China, are experiencing rapid technological advancements and increased social media usage, there remains a paucity of research examining the coping mechanisms and mental health implications associated with SMF in these regions. Notably, China's recent initiatives to integrate artificial intelligence into primary education underscore its commitment to technological adoption, surpassing many Southeast Asian counterparts. However, this swift integration raises concerns about the

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authenticity of academic achievements, particularly regarding the potential over-reliance on AI-generated content. This study aims to bridge this research gap by exploring the relationship between SMF, academic performance, and practical competencies among Chinese students. The conceptual framework illustrating these interrelationships is presented in Figure 2.

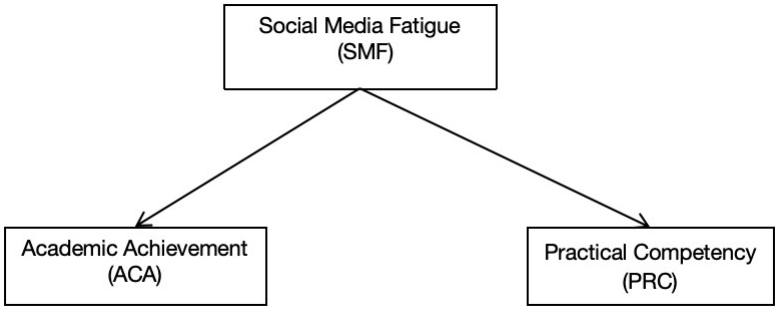

Figure 2: Conceptual framework

The study develops an empirical framework to examine the relationship between primary determinants of social media and China-based young adults' academic performance. The research suggests three independent variables of Social Media Confidence (SMC), Privacy Concerns (PVC), and Information Overload (IOD) to be directly influencing two primary dimensions of academic performance, as Practical Competency (PRC) and Academic Achievement (ACA). Social Media Fatigue (SMF) is an essential conceptual phenomenon that captures both stress at the psychological level and overload and privacy concern at the cognitive level of processing due to heavy and extensive use of social media. The research framework of the study is shown in Figure 3 below.

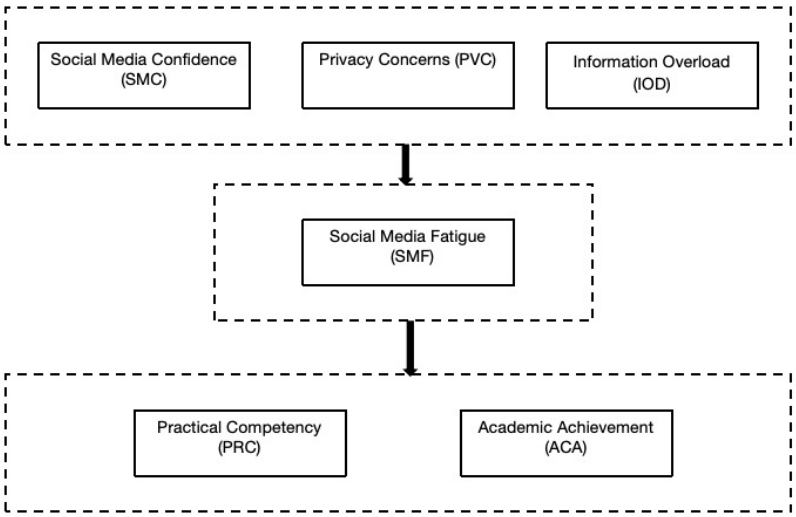

Figure 3: Research framework

Research Objectives

RO1: To identify the effects of social media confidence (SMC) on university students' academic achievement (ACA) and practical competency (PRC) in China.

RO2: To analyse the effects of information overload (IOD) on university students' academic achievement (ACA) and practical competency (PRC) in China.

RO3: To determine the effects of privacy concerns (PVC) on university students' academic achievement (ACA) and practical competency (PRC) in China.
RO4: To develop the Social Media Fatigue, Achievement (ACA), and Practical Competency (PRC) Model in China.

LITERATURE REVIEW

The Chinese and the Use of Social Media

According to the 52nd Statistical Report on Internet Development in China by China Internet Network Information Centre, as of June 2022, the number of Internet users in China stood at 1.051 billion, with an Internet penetration rate of 74.4%. The per capita weekly Internet usage is 29.5 hours, and the proportion of Internet users using mobile phones to access the Internet reaches 99.6% (CNNIC, 2023). Among China's "Generation Z", 91% use social media, but research has found that they are already using it (Comendulli, 2020). Recent surveys indicate that a significant portion of Chinese social media users are actively reducing their online engagement, with many opting to deactivate or permanently delete certain accounts. This trend reflects growing concerns over digital well-being and the psychological impacts of excessive social media use (Liu & He, 2021). In China, social media usage begins at an early age, with platforms being integrated into pre-schooler's lives. The Chinese government has strategically utilized domestic social media platforms to manage information dissemination and maintain national security, aiming to shield citizens from foreign influences and narratives (Xiao & Mou, 2019). Despite criticism from Western countries regarding media control, Chinese authorities assert that such measures are essential for preserving national sovereignty and public mental health.

Nevertheless, a segment of the population advocates for global social media platforms, arguing that such access facilitates broader perspectives and enhances social connections. Platforms like TikTok, developed by China's ByteDance, have gained international popularity, offering users worldwide opportunities for entertainment, education, and business growth (Ali et al., 2021). TikTok's extensive global presence highlights its versatility and significant function in promoting cross-cultural engagement. TikTok, coupled with its distinctive capacity in facilitating cultural exchange, has been able to differentiate itself from other social media platforms. With minimal effort, users can produce videos highlighting their cultural traditions, music, dance, cuisine, and fashion, creating opportunities for cross-cultural interactions. In this unique characteristic, TikTok is seen as a dynamic melting pot of cultures that enables users to share their experiences and establish connections that transcend diverse geographic and cultural backgrounds (Kaouel, 2021). Users' phenomenal experiences with TikTok would foster a sense of global community, making it a powerful tool for cross-cultural communication across geographical and diverse demographic backgrounds in the digital age.

The Use of Social Media and Students' Academic Achievement

This phenomenon is identified as "social media burnout," which emerges from advancements in social media technology and the adverse consequences of prolonged engagement with social media applications. Social media fatigue is characterized by emotions such as exhaustion and mild resistance, which users frequently encounter during their interactions with social media platforms. It varies from physiological fatigue, which denotes a form of psychological or mental exhaustion experienced by users as a result of prolonged engagement

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with social media platforms. Empirical research has demonstrated that social media fatigue is significantly influenced by factors including cognitive overload, emotional exhaustion, and a pervasive sense of information overwhelm, which diverge from traditional notions of physical fatigue and underscore the distinct challenges inherent in digital interactions (Malik et al., 2020). A study by Li et al. (2024) also corroborates this and further argues that social media fatigue has the potential to negatively impact users' mental health. It could also lead to a detrimental decrease in motivation as well as an increase in stress levels associated with social media use. In recent years, with the continuous development of social media technology and the rapid growth of social media users, social media fatigue has become a significant problem.

With the continuous development of social media technology and the surge of social media users in recent years, social media fatigue, as a side effect of the development of information technology, has appeared in adults' views in the flood of information and data. One is to regard social media fatigue as a single-factor psychological and emotional state or behavioural manifestation, and the second is to define social media fatigue as a multifactorial coexistence of psychological and behavioural conditions. Several other scholars view social media fatigue as a behavioural manifestation of the overuse of social media (Liu & He, 2021). Jiang (2022) defines social media fatigue from a behavioural perspective as a state in which users no longer have free time to enjoy their lives due to information overload, too many social interactions, and the need to continue this state of affairs leads to a tendency to withdraw from social media (the movement to remove from social media). Further, Bright et al. (2022) also state that fatigue has been identified as one of the negative effects due to overloading and excessive exposure to information on social media (Bright et al., 2022).

Many studies have investigated the adverse effects of technology in the workplace and its impact on young adults' academic performance or social environments (Palumbo, 2020). These studies have found conclusive evidence of a negative correlation between excessive use of technology and work-related stress and fatigue among young adults. The mental preoccupation that young adults are prone to with these platforms during academic activities can lead to sudden spikes in psychological stress, ultimately leading to a decline in grades (Masood, 2022). For example, Course-Choi and Hammond (2021) studied 218 Facebook users and found that heavy social media users had lower self-grade point averages (GPAs). Similarly, other studies of young Americans have found that increased Facebook interaction and use lead to lower actual GPAs (Evans & Robertson, 2020; Toker & Baturay, 2019). Social media fatigue is a phenomenon that can seriously affect young adults' academic performance (Dhir et al, 2019). The overuse and continued presence of social media platforms can present a variety of challenges that can affect young adults' ability to focus, learn effectively, and perform well academically (Sedgwick-Müller, 2022).

Social Media Confidence and Academic Performance

Social media confidence (SMC) refers to how individuals perceive their ability to utilize and exchange information via digital media. More socially media confident learners are in a better position to manage digital communication and integrate online tools in their study routines (Alenezi et al., 2023). Excess confidence, however, results in excessive use of social websites, resulting in distraction and less concentration on studying. Studies by Sun and Chao (2024) showed that highly confident social media users were at increased risk of multitasking when studying at the expense of performance. Conversely, less confident social media users can feel stressed or even forego using learning technologies, thereby limiting their learning ability.

An understanding of both ends of social media confidence is thus essential to comprehend how it shapes the larger phenomenon of increasing social media fatigue and academic performance.

Privacy Concerns and Students' Psychological Response

Privacy concerns (PVC) have arisen as a salient challenge to students, especially considering extensive personal data collection and commodification by social media. Previous studies ascertain that heightened awareness of privacy issues can cause cognitive dissonance and emotional fatigue, especially when confronted with privacy boundary violations (Van Der Schyff et al., 2023). As postulated by Li and other researchers (2023), when learners feel significant data privacy stress, they tend to pull away from interpersonal interaction or limit engagement in educational activities in virtual environments. As much as this form of coping may provide temporary alleviation, it can hinder collaborative learning opportunities and lower participation within virtual learning communities. Self-censorship and avoidance behaviours can further hinder academic performance since fear of privacy violations can incite such behaviour. In the context of social media fatigue, privacy issues act as intrinsic stressors and thereby reduce engagement in educational activities and overall well-being.

Information Overload and Learning Performance

Information overload (IOD) describes a condition where an individual's ability to process information cognitively is outpaced by the quantity, velocity, or complexity of digital information. In the current context, shaped to a great degree by social media, students often face an enormous variety of content that ranges from entertainment to educational materials. The increased cognitive load interferes with concentration, worsens decisional fatigue, and lowers the ability to store information (Asgari et al., 2024). The study by Tian and Lu (2022) identified that web-based information overload is reported by students at higher rates, who experience lower satisfaction with campus life and have higher chances of dropping out of structured learning environments.

The incessant switching between actions on different platforms incites increased cognitive load, consequently impacting both homework and examination results. As an intrinsic cause of social media fatigue, information overload represents a significant menace to college-level academic achievement and warrants thorough inquiry in light of students' interaction with digital media. A study by Xu et al. (2022) found that severe negative consequences, such as fatigue, decreased ability to concentrate, and reduced work and academic performance, were attributed to the excessive usage and social media overload. A similar study by Ather et al. (2024) also revealed an alarming pattern that pointed to social media overload, where it can directly influence the academic performance of medical students, with anxiety partially mediating this relationship. Consequently, it is worth noting that social media overload negatively affects academic performance, whereby this effect is partially mediated by increased anxiety levels among students.

Social Media and Students' Practical Competency

Practical competency (PRC) is understood as the ability of students to apply learned knowledge in honest and professional environments, in activities like projects, internships, and presentations. Social media provide unrivalled opportunities for collaborative efforts and creative productions of students, but extensive use can interfere with establishing deep, task-

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related competencies. George and other researchers (2023) illustrated that students who spent more than four hours a day using social media showed lower performance at practical undertakings, especially those requiring sustained attention and cooperative efforts. Similarly, Zhan et al. (2022) established that students with high degrees of digital distraction struggled to perform laboratory experiments and complete peer-reviewed tasks. The pressure to remain constantly updated on social media reduces opportunities for deliberate practice, which is essential for developing practical competency. Thus, the relationship between social media use and hands-on academic performance deserves more focused exploration, especially in technology-saturated learning environments.

Hypothesis Development

The hypotheses outlined in Table 1 aim to examine the underlying factors contributing to Social Media Fatigue (SMF) and its effects on students. H1 to H3 explore the predictive relationships between Social Media Confidence (SMC), Privacy Concern (PVC), and Information Overload (IOD) with SMF, suggesting that each variable significantly contributes to the development of fatigue among users. Meanwhile, H4 and H5 assess the outcomes of SMF on students' performance, positing significant differences in both Practical Competency (PRC) and Academic Achievement (ACA). These hypotheses provide a comprehensive framework to investigate how digital behaviour affects cognitive and performance-related outcomes.

Table 1: Hypothesis development

No.	Hypothesis
H1	There are significant effects between Social Media Confidence (SMC) and Social Media Fatigue (SMF).
H2	There are significant effects between Privacy Concern (PVC) and Social Media Fatigue (SMF).
H3	There are significant effects between Information Overload (IOD) and Social Media Fatigue (SMF).
H4	There is a significant difference between Social Media Fatigue (SMF) and Practical Competency (PRC).
H5	There is a significant difference between Social Media Fatigue (SMF) and Student Academic Achievement (ACA).

METHODOLOGY

This study employed a quantitative research design, utilizing a structured questionnaire as the principal instrument for data collection. The development of this instrument involved the careful construction of survey items grounded in established measures from previous research, ensuring both reliability and validity in the data-gathering process (Davis, 1996). The questionnaire utilized a 5-point Likert scale, where 1 = strongly disagree to 5 = strongly agree. Upon finalizing the instrument, the researcher distributed the survey for data collection.

A sample of 200 Chinese students, specifically young adults actively using social media, was selected using non-probability sampling, particularly the convenience sampling method, due to accessibility and relevance to the study's focus on social media fatigue in an educational context. The survey instrument was designed to assess latent constructs, including Social Media Confidence, Privacy Concerns, Information Overload, Academic Achievement, and Practical Competency, each measured with five items adapted from validated scales in prior literature (Xiao & Mou, 2019; Liu & He, 2021). Academic achievement in this context reflects the perceived impact of social media fatigue on students' learning outcomes, while practical competency refers to the students' ability to manage everyday tasks and responsibilities after experiencing digital fatigue. A pilot study was carried out to further validate the developed instrument, during which reliability and validity assessments

were performed to ensure the accuracy and consistency of the measurement items. The present study employed two software programs to run the analysis: SPSS Version 29 and PLS software.

Pilot Study

A pilot study was conducted involving a sample of 30 respondents to validate the measurement items associated with each variable in the study. The primary objective of the pilot study was to assess the reliability, clarity, and internal consistency of the items prior to the main data collection phase. Pilot testing is a widely accepted preliminary step in quantitative research to ensure that the research instrument functions as intended and that the items accurately capture the constructs under investigation (Creswell & Creswell, 2018). The choice of 30 participants aligns with methodological guidelines suggesting that a sample size between 20 and 30 is generally sufficient to identify potential issues in survey design and to perform initial reliability analysis, such as calculating Cronbach's alpha (Johanson & Brooks, 2010).

Table 1 below further validates the reliability analysis of the variables measured in this study using Cronbach's Alpha coefficient, which assesses the internal consistency of each construct. A Cronbach's Alpha value above 0.7 is generally considered acceptable, with higher values indicating greater reliability. In this study, Social Media Confidence (SMC) recorded a Cronbach Alpha of 0.962, reflecting excellent internal consistency, suggesting that the items under this construct are highly consistent in measuring the intended concept. Information Overload (IOD) yielded a value of 0.850, indicating good internal consistency, suitable for exploratory and confirmatory analyses. Similarly, Privacy Concerns (PVC) achieved an excellent score of 0.918, reinforcing the reliability of the scale used.

For academic-related variables, Academic Achievement (ACA) showed a Cronbach Alpha of 0.916, reflecting excellent consistency in how student achievement was captured post-social media fatigue. Lastly, Practical Competency (PRC) demonstrated good internal consistency with a Cronbach's Alpha of 0.887, indicating that the items reliably measure students' practical functioning in daily life following exposure to social media fatigue. The reliability of the study illustrating this is presented in Table 2 below.

Table 2: Reliability of study

Section	Variable	Cronbach Alpha	Internal Consistency
B	SMC	0.962	Excellent
C	IOD	0.850	Good
D	PVC	0.918	Excellent
E	ACA	0.916	Excellent
F	PRC	0.887	Good

Sampling

This study employed a quantitative research design utilizing structured questionnaires to collect data from a sample of 200 students in China. The questionnaires were distributed using convenience sampling, a type of non-probability sampling technique deemed appropriate given the exploratory nature of the research and the accessibility constraints within the target population. Convenience sampling involves selecting participants who are readily available and willing to participate in the study, often due to time, geographical, or logistical limitations (Etikan, Musa, & Alkassim, 2016). In this research, university students in

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China were targeted due to their accessibility, familiarity with digital communication platforms, and relevance to the research topic.

As the study is positioned as an early-stage investigation, convenience sampling allowed for efficient data collection and provided a practical means of exploring emerging patterns in the variables under examination. Although convenience sampling does not offer the statistical generalizability associated with probability sampling methods, it is a widely accepted approach in preliminary or pilot research where the goal is to identify trends, test hypotheses, or validate research instruments (Creswell & Creswell, 2018). The sample size of 200 participants was deemed sufficient for conducting basic statistical analyses, such as correlation, regression, or factor analysis, which typically require a minimum sample size of 100–200, depending on the complexity of the model (Hair et al., 2019). Moreover, conducting the study exclusively in China provides context-specific insights, especially considering the unique socio-cultural, educational, and digital environment that influences student behaviour in the region. This approach contributes valuable localized findings that can inform future cross-cultural or larger-scale research with more rigorous sampling techniques.

Measurement Model

The measurement model was assessed to establish the validity and reliability of the constructs. All items indicated high degrees of indicator reliability with factor loadings ranging between 0.73 and 0.83, above the widely acknowledged benchmark of 0.70 (Cheung et al., 2024). Internal consistency was assessed using Cronbach's Alpha and Composite Reliability (CR), both documented at above 0.88 for all constructs, indicating high construct reliability. The Average Variance Extracted (AVE) measures proved to be consistent between different constructs and were in line with existing benchmarks in social science studies. Combined with high Composite Reliability (CR) measures and high item loadings across the board, these findings provide strong evidence of convergent validity. As a whole, the measurement model displayed strong reliability and construct validity and hence justified advancement to assess the structural model. The measurement and structural model of this study is presented in Table 3 below.

Table 3: Measurement and structural model

Latent Variable	Item	Loadings	CR	AVE	Latent Variable	Item	Loadings	CR	AVE
Social Media	SMC1	0.780	0.891	0.421	Academic	ACA1	0.730	0.888	0.388
Confidence	SMC2	0.810			Achievement	ACA2	0.750		
(SMC)	SMC3	0.790			(ACA)	ACA3	0.740		
	SMC4	0.830				ACA4	0.760		
	SMC5	0.820				ACA5	0.750		
Privacy	PVC1	0.770	0.885	0.382	Practical	PRC1	0.740	0.882	0.383
Concerns (PVC)	PVC2	0.800			Competency	PRC2	0.770		
	PVC3	0.760			(PRC)	PRC3	0.760		
	PVC4	0.790				PRC4	0.750		
	PVC5	0.780				PRC5	0.740		
Information	IOD1	0.750	0.895	0.384		IOD4	0.780		
Overload (IOD)	IOD2	0.760				IOD5	0.770		
	IOD3	0.740							

RESULTS AND DISCUSSION

Table 4 outlines the demographic characteristics of the 200 respondents who participated in this study. In terms of age distribution, the majority of participants were between 25 and 35 years old (73.0%), followed by those aged 18 to 25 years (16.0%). A smaller proportion fell into the 35 to 45 years category (6.0%), while 5.0% were above 45 years old. Regarding

gender, the sample comprised 53.5% female and 46.5% male participants, reflecting a relatively balanced distribution. As for student type, most respondents were undergraduate students (89.0%), whereas 11.0% were postgraduate students. In terms of institutional affiliation, 62.5% of participants were enrolled in public universities, while the remaining 37.5% were from private universities. This demographic breakdown provides a diverse and representative overview of young adult social media users in the context of Chinese higher education.

Table 4: Demographic profile

Demographic	Items	Frequency *(f)*	Percentage (%)
Age	18-25 years old	32	16.0
	25 -35 years old	146	73.0
	35-45 Years old	12	6.0
	Above 45 Years old	10	5.0
Gender	Male	93	46.5
	Female	107	53.5
Students Type	Undergraduate Students	178	89.0
	Postgraduate Students	22	11.0
Institution Type	Pubic University	125	62.5
	Private University	75	37.5

To meet the first three objectives, Pearson correlation was used to check the relationship between variable tests, including Social Media Confidence (SMC), Privacy Concern (PVC), Information Overload (IOD), and Academic Achievement and Practical Competency (PRC). Table 5 shows the results of the Pearson Correlation and the interpretation.

Table 5: Summary of Pearson correlation and regression

Hypothesis	Relationship	Pearson Correlation (*r*)	Correlation Interpretation	Regression (R2) (%)	Regression Interpretation
H1	SMC-ACA	0.403	Weak	31	Low
H2	SMC-PRC	0.725	Strong	65	Moderate
H3	PVC-ACA	0.823	Strong	87	High
H4	PVC-PRC	0.833	Strong	85	High
H5	IOD-ACA	0.901	Strong	72	High
H6	IOD-PRC	0.951	Strong	71	High

Table 4 shows that Hypothesis 1 (H1), which visualizes the relationship between Social Media Confidence (SMC) and Academic Achievement, showed a weak positive correlation ($\rho = 0.403$), with a low regression coefficient of 31%, suggesting that SMC explains only a modest proportion of the variance in academic outcomes. Meanwhile, in Hypothesis 2 (H2), the correlation between SMC and Practical Competency was strong ($\rho = 0.725$), with 65% of the variance explained, indicating a moderate predictive strength. Similarly, Hypotheses 3 and 4 revealed strong correlations between Privacy Concerns (PVC) and both Academic Achievement ($\rho = 0.823$, $R^2 = 87\%$) and Practical Competency ($\rho = 0.833$, $R^2 = 85\%$), both demonstrating high explanatory power. In addition, Hypothesis 5 (H5) showed a very strong relationship between Information Overload (IOD) and Academic Achievement ($\rho = 0.901$), with an R^2 of 72%, indicating a high level of influence. Likewise, Hypothesis 6 (H6) revealed

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the strongest correlation between IOD and Practical Competency (ρ = 0.951), with an R^2 of 71%, reflecting a high predictive relationship.

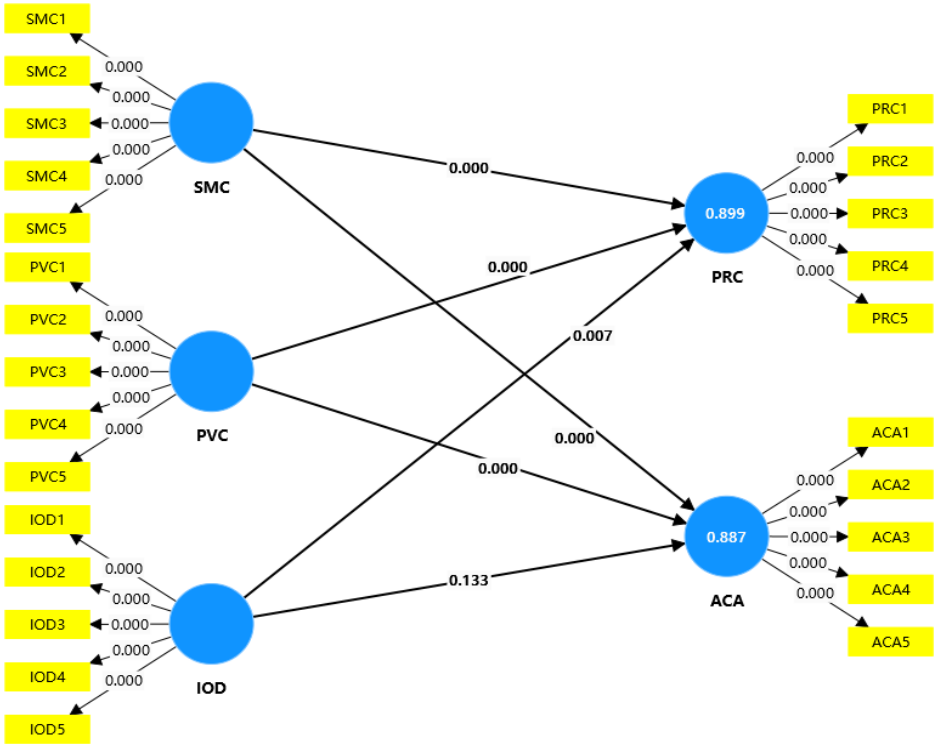

Figure 4: Final model for social media fatigue, academic achievement, and practical competency model in China.

The structural model tested was designed to analyse direct impacts of Social Media Confidence (SMC), Privacy Concerns (PVC), and Information Overload (IOD) on Academic Achievement (ACA) and Practical Competency (PRC). As depicted in Figure 4, empirical testing of all hypothesized relations was carried out using SmartPLS. The results show that SMC, PVC, and IOD have statistically significant relationships ($p < 0.05$) with both ACA and PRC; however, IOD's association with ACA was found to be statistically nonsignificant ($p = 0.133$). In particular, SMC's relationship with ACA ($p = 0.000$) and SMC's association with PRC ($p = 0.000$) show that students' confidence in using social media positively impacts both. Besides, PVC proves to have an impact on both ACA ($p = 0.007$) and PRC ($p = 0.000$), whereas IOD has an effect on PRC ($p = 0.000$) but is not significant when it comes to ACA. The PRC's coefficient of determination was $R^2 = 0.899$, compared to the ACA's $R^2 = 0.887$, which implies that the model accounts for approximately 89.9% and 88.7% of the variance in students' practical competency and academic performance, respectively. These values represent a high level of explanatory power of the model. In summary, the structural model offers empirical evidence of the fundamental impact of social media factors in predicting adults' educational and practical achievements, as well as outlining issues regarding privacy and social media's self-efficacy in Chinese young adults.

CONCLUSION

Social media platforms appeal strongly to students due to their diverse functionalities, including continuous connectivity, content visibility, social feedback, and ease of access. However, a growing body of research has highlighted the susceptibility of young users to both

psychological and physical challenges resulting from unregulated and excessive use of these platforms (Yashu et. al, 2024). Building on prior academic literature, the present study enhances our understanding of social media fatigue and its underlying mechanisms within the context of student behaviour in China. Employing a quantitative methodological approach, this study investigated how different social media practices, specifically social media confidence, privacy concerns, and information overload, influence students' academic achievement and practical competencies.

The findings suggest that while social media confidence has a limited impact on student outcomes, privacy concerns and information overload play a more significant role in shaping both academic and practical performance. This aligns with previous findings that privacy anxiety and cognitive overload are critical predictors of digital fatigue and reduced academic engagement (Bright et al., 2015; Islam et al., 2020). The strong dependence on social media platforms in China across both public and private institutions, as a dominant mode of communication and content delivery, contributes to this trend (Yang & Wang, 2021). In such contexts, concerns around privacy tend to be overlooked, as students prioritize digital participation as a necessary means to academic success and competency building (Liu & He, 2021; Xiao & Mou, 2019). In addition, the structural model revealed that Social Media Confidence (SMC), Privacy Concerns (PVC), and Information Overload (IOD) significantly influence students.

Therefore, the structural model revealed that Social Media Confidence (SMC), Privacy Concerns (PVC), and Information Overload (IOD) significantly influence students' academic and practical outcomes due to their centrality in modern digital learning environments. High SMC enhances students' self-perceived digital competence, enabling effective engagement with online academic resources. A study by Romi (2024) also reveals that university students with strong digital competencies performed better academically. PVC motivates users to manage their data and attention more strategically, which improves focus and learning efficiency (DataGuard Insights, 2024). Although IOD may disrupt academic concentration, it fosters multitasking and information filtering skills critical for real-world problem-solving (Zukauskas & Rebecca, 2022).

Given these dynamics, future research should explore strategies for mitigating social media fatigue without undermining the educational and functional advantages of digital connectivity. Furthermore, the conceptual model developed in this study can serve as a useful tool for ongoing assessment of students' academic performance and practical capabilities in response to social media usage.

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