International Journal of Multidisciplinary Research and Publications
ISSN (Online): 2581-6187

Research on the Impact of Risk Perception and Self-Determination on College Students' Digital Detachment Intention

Gu Yue[1]
[1]Journalism and Communication, ShangHai University, ShangHai, China
Email address: moongorge@163.com

Abstract—*With the rapid advancement of digital technologies, social issues such as digital addiction and excessive device usage among users have become increasingly prominent. As a key solution to these problems, digital detoxification has garnered widespread attention. This study focuses on college students, examining their willingness to engage in digital detoxification from the perspectives of risk perception and self-determination. Using a questionnaire survey (N = 231) and integrating the Technology Threat Avoidance Theory with Self-Determination Theory, the study employs perceived risk, perceived evaluation, and perceived benefits as research variables. Findings reveal that perceived evaluation significantly influences college students' willingness to engage in digital detoxification, with perceived severity acting as a mediating factor. Individuals who perceive negative impacts from digital device usage are more likely to take action to reduce usage and avoid potential severe consequences. Additionally, self-determination sense positively moderates the relationship between perceived severity and digital detoxification willingness. Those with stronger self-determination sense typically exhibit higher autonomy and control, enabling them to overcome challenges and actively implement digital detoxification plans.*

Keywords— *Risk perception; self-determination theory; technology threat avoidance theory; digital detox intention.*

I. INTRODUCTION

The widespread adoption of digital technologies has triggered a societal shift from "traditional industrial society" to "digital existence," with these technologies permeating every aspect of social processes. The application of digital technologies represented by smartphones and social media has not only transformed communication and interaction patterns but also triggered a series of adaptive or resistant ripple effects. The dual paradox of technology has drawn significant attention: while digital innovations provide substantial convenience – enabling new learning, working, and communication methods through devices like smartphones – they may also lead to pathological dependencies when used improperly. In recent years, social media and smartphone addiction phenomena characterized by "excessive use, uncontrollable behavior, withdrawal symptoms, and negative consequences" have emerged, sparking widespread concern and anxiety. According to the latest survey report, social media users number 4.8 billion, accounting for 59.9% of the global population. Individuals with internet access spend an average of 6.5 hours online daily, with some countries recording over 9 hours per capita. On average, people spend 2.4 hours daily on social media platforms. In 2020, the World Health Organization officially recognized digital addiction as a global issue, stating that excessive online activities and internet usage impair daytime time management, reduce energy levels and concentration, and disrupt sleep patterns or cause insomnia at night, ultimately diminishing subjective well-being. Research reports from different countries indicate that during the global COVID-19 pandemic, digital addiction associated with economic hardship, bereavement, isolation, anxiety, and stress has increased, exacerbating the severity of this issue.

Against this backdrop, a practice of "digital detoxification" aimed at counteracting digital dependence has quietly emerged and gradually become a new trend. An increasing number of people are beginning to resist digital media in their fast-paced digital lives, consciously and significantly limiting their media usage. From digital dependence to digital detoxification, digital society is undergoing another social shift. The emergence of the concept of digital detoxification and related practices signifies that people are no longer enslaved by technology and devices but are instead acutely aware of how to utilize technology rationally to maximize utility. This is particularly crucial for the "digital natives" group that has grown alongside the internet era. According to the 48th Statistical Report on China's Internet Development Status, China's internet users aged 20-29 are defined as digital natives. They not only exhibit the highest usage rates of online music, videos, and live streaming applications among all age groups of internet users but also demonstrate the strongest recognition of the value of internet applications. Based on this age definition, the majority of college students (including undergraduates and postgraduates) fall into the digital native category. However, previous research has predominantly focused on issues of internet addiction or digital addiction among this group, while paying insufficient attention to their efforts in digital detoxification. This paper focuses on college students to explore their willingness for digital detoxification from the perspective of risk perception, thereby gaining a better understanding of their attitudes and behaviors toward digital detoxification, as well as their risk perception and coping strategies when facing digital dependence issues. This study not only contributes to enhancing understanding of digital health status among this population but also provides

Gu Yue, "Research on the Impact of Risk Perception and Self-Determination on College Students' Digital Detachment Intention," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 10, pp. 236-244, 2026.

theoretical support and practical guidance for developing effective digital detoxification interventions.

II. Review of Studies

A. Risk Perception and Technical Threat Avoidance

1.Risk Perception: Conceptual Explanation and Research Status

In social science research, risk is not merely an objective reality but a socially constructed perception, giving rise to the concept of "risk perception." Risk perception (or risk cognition), a psychological concept first proposed by Harvard University Professor Bauer in consumer studies, posits that purchasing decisions are primarily driven by individual subjective judgments. These judgments may not accurately predict final outcomes, indicating inherent uncertainty in decision-making processes－this uncertainty constitutes the foundational concept of risk. Subsequently, risk perception has been widely adopted across disciplines and is typically defined as an individual's assessment of the likelihood and severity of risk occurrence.

Risk perception exhibits both objective and subjective characteristics, sparking scholarly discussions on its influencing factors. When examining external influences, media's role has garnered significant attention. As producers and disseminators of information, media plays a crucial role in interpreting risks and reconstructing their meanings. Scholar Beck noted, "Media used to understand risks provide perceptions of risk, thereby becoming involved in risk production, manipulation, negotiation, and displacement." Regarding internal factors, risk perception relies not only on rational cognitive judgments but is also influenced by emotional elements. Since the 1970s, Paul Slovic and colleagues introduced the psychometric paradigm into risk analysis, which has gradually become a key theoretical branch in risk research. The psychometric paradigm emphasizes that risk perception stems from socially constructed individual subjective experiences, yet such perception encompasses not only quantitative attributes of potential hazards but also qualitative psychological dimensions like novelty and controllability. While the psychometric paradigm pioneered risk perception research, its overemphasis on rational judgment has drawn criticism from scholars. Many argue that risk perception results from the interplay of rational analysis and emotional responses. Consequently, the concept of "risk as feeling" has been incorporated into risk assessment models, contributing to the emergence of dual-processing models in risk perception studies. The model posits that cognitive risk perception represents a cautious, slow-paced, and controllable information processing approach that requires mobilizing substantial cognitive resources for analysis, whereas affective risk perception is an intuitive, rapid, and spontaneous heuristic information processing mode with minimal cognitive resource involvement. Increasing evidence also demonstrates that negative emotions such as fear, anxiety, and anger can influence individuals' risk perception.

In recent years, with the accelerated development of globalization and informatization, the scope of risk perception research has continued to expand. On one hand, studies focusing on environmental risks, information security, and technological risks have become hot topics in risk perception research. On the other hand, the application of emerging technologies such as big data and artificial intelligence has driven continuous innovation and refinement in research methodologies. Risk perception research also holds significant importance in addressing digital detoxification. College students, as part of the digital natives demographic, face various risks associated with digital dependency, including social media addiction and internet addiction. Therefore, examining the willingness of this group to engage in digital detoxification through the lens of risk perception can provide deeper insights into their psychological states and behavioral decision-making when confronting digital dependency challenges.

2.Technical Threat Mitigation: Conceptual Explanation and Research Status

The Technology Threat Avoidance Theory, proposed by Liang Huigang (tenured professor) and Xue Yajiong (assistant professor) at the University of East Carolina, aims to study how individual information technology users mitigate harmful technological threats. Integrating insights from psychology, health protection, and risk analysis research, this theory incorporates protective motivation theory, health belief models, and risk assessment methodologies. As a versatile theoretical framework, it effectively explains users' security behaviors.

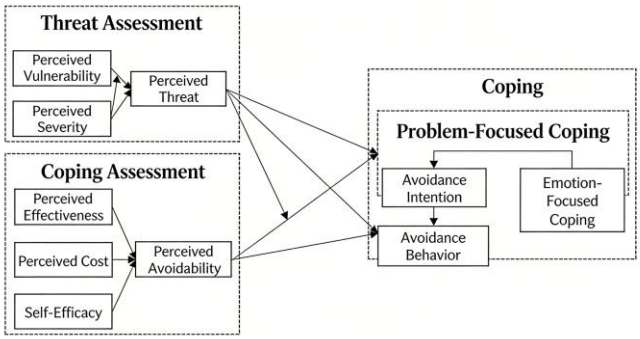

Figure 1 Theoretical Model of Technical Threat Avoidance

Previous research has validated the effectiveness of technical threat avoidance theory in predicting users 'intentions to address technological threats. For instance, Boysen et al. applied modified technical threat avoidance theory to analyze how threat perception influences individuals' motivations for mitigating cybersecurity incidents. Carpenter et al. further refined the theory by incorporating individual differences such as risk propensity, distrust tendencies, and impulsive behaviors in cybersecurity exploration to better understand threat avoidance motivations. Additionally, Peng et al. integrated modified technology acceptance theory with technical threat avoidance theory to analyze user motivations for adopting e-learning systems.

While previous studies have employed the technology threat avoidance theory to examine technology-related issues, most research has focused on information technology security contexts within enterprises, such as cloud computing security, phishing threats, identity theft, or email threats. In contrast, the

Gu Yue, “Research on the Impact of Risk Perception and Self-Determination on College Students' Digital Detachment Intention,” *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 10, pp. 236-244, 2026.

avoidance strategies for internet addiction have received relatively limited attention. The technology threat avoidance theory posits that risk perception and avoidance behaviors are influenced by multiple factors − including risk nature, individual characteristics, and situational factors−which can provide valuable insights for digital detox research. Therefore, studying individuals' perception of digital dependency risks and their avoidance behaviors in the context of digital detox can help us better understand the underlying psychological mechanisms.

B. Research on Self-Determination Theory

The Theory of Self-Determination, proposed by Deci and Ryan, posits that humans are proactive organisms inherently motivated to challenge themselves, pursue personal growth, and engage in activities of interest. However, these intrinsic motivations do not operate automatically; they are influenced by environmental factors and goal orientation. When the surrounding environment fulfills three innate human needs−autonomy, competence, and belongingness−individuals exhibit strong intrinsic motivation, leading to more proactive behaviors in related activities. Conversely, maintaining clear internal goals during activities further enhances intrinsic motivation, resulting in superior performance during task execution.

The application of Self-Determination Theory in journalism and communication primarily focuses on users 'reception and consumption behaviors of news information. This theory posits that when selecting and consuming news, individuals are influenced by both intrinsic motivations and needs, as well as external environmental and social factors. On one hand, Self-Determination Theory emphasizes the importance of personal intrinsic motivation and autonomy. In journalism contexts, users' intrinsic motivations may include staying informed about current events, acquiring knowledge and perspectives, and satisfying curiosity. These motivations drive users to actively seek and consume news content. Simultaneously, users' autonomy needs significantly impact their information consumption behaviors−they desire greater control and choice during information consumption to align with personal interests and needs. On the other hand, psychological need satisfaction within Self-Determination Theory also plays a crucial role in news consumption behavior. Meeting psychological needs such as autonomy, competence, and relevance helps users better process and digest news information. For instance, providing personalized news recommendations allows users to experience autonomy and control; delivering in-depth news analysis enhances understanding of events and fulfills competence needs; while establishing news discussion platforms enables users to share perspectives and engage in social interactions, satisfying their social needs.

In conclusion, the Self-Determination Theory provides a valuable framework for understanding the motivations and psychological mechanisms underlying users' news consumption behaviors. However, its practical application in addressing digital addiction requires further investigation. This study explores specific implementations of the Self-Determination Theory in user addiction management, aiming to better assist individuals in overcoming digital dependency and achieving healthier lifestyles.

C. Conceptual Evolution in Digital Addiction Research

The concept of digital detox first emerged abroad in 2010. Subsequent practical initiatives and websites promoting digital detox gradually gained traction, aiming to help people recognize the importance of maintaining balance between digital technology and real-life experiences. This awareness eventually led to the concept becoming widely recognized. In 2013, Oxford Dictionary officially defined digital detox as a period during which users consciously avoid electronic devices like smartphones and computers, viewing it as an opportunity to reduce stress or focus on real-world social activities. With advancements in digital technology, scholars expanded the definition of digital detox from the original electronic devices to encompass the entire internet, social media platforms, television, and other digital services. It can also be summarized as a temporary period of moderate or significant reduction in digital media usage. However, since smartphones have become ubiquitous devices, some researchers now define digital detox as a deliberate period of avoidance from smartphone use. Regarding duration and frequency, scholars generally adopt flexible definitions ranging from one hour to several days, with detox cycles spanning weekly intervals or extended periods like entire weeks or holidays. Importantly, digital detox does not advocate permanent internet or device avoidance, but rather encourages users to reduce excessive dependence on digital tools, practice rational restraint in online media consumption, and establish equilibrium between virtual and physical worlds.

Based on literature review, this study defines "digital detoxification" as the conscious cessation of connections with digital devices or technologies and discontinuation of digital services over a defined period. Under this definition: First, disconnecting from digital devices or isolating oneself from digital technologies should be voluntary and intentional actions, which may involve external tools such as dedicated digital detox apps. Second, digital detoxification encompasses both complete termination of internet access points and device interfaces, as well as selective discontinuation of specific connected devices. Third, its content scope includes exposure to all internet categories and deliberate avoidance of particular information streams−for instance, refraining from messaging apps or app usage during designated periods. Notably, accessing pre-downloaded content only available online after device disconnection does not qualify as digital detoxification. Fourth, the duration of digital detoxification varies depending on contextual factors.

III. Research Hypotheses and Model Construction

A. Perceptual awareness, perceptual evaluation, and perceived threat

The Technology Threat Avoidance Theory posits that user security behavior operates as a dynamic positive feedback loop comprising three processes: threat assessment, response evaluation, and response implementation. Specifically, threat

Gu Yue, “Research on the Impact of Risk Perception and Self-Determination on College Students' Digital Detachment Intention,” *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 10, pp. 236-244, 2026.

assessment involves evaluating perceived susceptibility and threat severity, with both factors collectively influencing perceived threat perception. Perceived susceptibility refers to an individual's subjective assessment of the avoidability of threat events, while perceived severity denotes the subjective evaluation of potential psychological, social, and economic consequences. Response evaluation consists of three components: perceived effectiveness, perceived cost, and perceived self-efficacy, which collectively influence perceived avoidability. Perceived effectiveness originates from Bandura's theory, representing an individual's assessment of how likely a behavior will lead to desired outcomes. Perceived cost involves evaluating the physical and cognitive efforts required for protective measures, such as time investment, financial expenditure, and cognitive processing capacity. Self-efficacy refers to an individual's confidence in implementing protective actions. Building on perceptual process theory and these frameworks, this study proposes three key variables: perceived awareness, perceived threat, and perceived evaluation. Empirical evidence indicates that perceived awareness and perceived evaluation positively correlate with perceived threat perception. Based on these findings, the following hypotheses are proposed:

H1a: Perceived awareness has a positive effect on perceived susceptibility

H1b: Perceived consciousness has a positive impact on perceived severity

H1c: Perceived awareness has a positive impact on digital detox behavior

H2a: Perceived evaluation has a positive effect on perceived susceptibility

H2b: Perceived evaluation has a positive effect on perceived severity

H2c: Perceived evaluation has a positive impact on digital detox behavior

B. Perceived Benefits and Perceived Threats

Social exchange theory posits that individuals rationally evaluate expected benefits and potential risks when selecting exchange behaviors, weighing costs and benefits to maximize gains. Perceived benefits and perceived threats may fluctuate over time and context, prompting continuous behavioral adjustments through feedback and accumulated experience to enhance perceived benefits while mitigating perceived threats. Consequently, users with higher perceptions of social media convenience tend to exhibit stronger threat responses — specifically, greater perceived benefits correlate with heightened threat awareness. This leads to the following hypothesis:

H3a: Perceived benefits have a positive impact on perceived susceptibility

H3b: Perceived benefit has a positive effect on perceived severity

H3c: Perceived benefits have a positive impact on digital detox behavior

C. Perceived Threat and Willingness to Digital Detoxification

Perceived threat is typically categorized into two dimensions: perceived susceptibility and perceived severity. Perceived susceptibility refers to an individual's perception of vulnerability to specific threats or adverse effects, influenced by personal characteristics, prior experiences, and social context. Perceived severity denotes an individual's assessment of the threat's or negative consequences' magnitude, reflecting their perceived importance of potential outcomes and anticipated adverse impacts. These two dimensions collectively shape audience perceptions of threats in specific information environments or media ecosystems. Such integrated evaluations influence trust in digital media, usage behaviors, and digital detox intentions. Media dependency theory and audience selective exposure theory demonstrate that when individuals perceive risks or potential harms in digital media environments, they may reassess their usage patterns, prioritizing information related to reducing digital engagement—thereby strengthening their resolve for digital detox. This process exemplifies dynamic interactions among media environments, audience cognition, and behavioral responses. Based on these findings, the following research hypotheses are proposed:

H4a: Perceived susceptibility has a positive impact on users' digital detoxification

H4b: Perceived severity has a positive impact on user digital detoxification

D. The Mediating Role of Perceived Threat

The core premise of threat avoidance theory posits that when users perceive a threat, they will proactively implement security measures if they determine the threat is preventable. However, when they conclude no measures can mitigate the threat, they respond through emotional focus theory. Risk avoidance fundamentally requires threat perception — the subjective assessment of danger by users. This study establishes threat perception as the mediating variable in user perception processes, with perceived awareness, perceived evaluation, and perceived benefits serving as latent variables, while risk perception functions as the explicit variable. Based on this framework, the following research hypotheses are formulated:

H5a: Perceived susceptibility mediates the relationship between (perceived awareness/perceived evaluation/perceived benefits) and user digital disengagement

H5b: Perceived severity mediates the relationship between (perceived awareness/perceived evaluation/perceived benefits) and user digital disengagement

E. The Regulatory Effect of Self-Determination Sense

Problem-focused coping and emotion-focused coping are two critical factors in the process of technical avoidance. Deci et al. argue that the self-determination theory primarily explores the extent to which individuals' behaviors are self-determined and voluntarily achieved, while elucidating the conditions for the generation of intrinsic motivation. Autonomy needs, belonging needs, and competence needs constitute key components of the self-determination theory. Therefore, the following research hypothesis is established:

H6a: Self-determination sense mediates the relationship

Gu Yue, "Research on the Impact of Risk Perception and Self-Determination on College Students' Digital Detachment Intention," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 10, pp. 236-244, 2026.

between perceived consciousness and user digital disengagement

H6b: Self-determination sense mediates the relationship between perceived evaluation and user digital disengagement

H6c: Self-determination sense mediates the relationship between perceived evaluation and user digital disengagement

In conclusion, this study constructs a mechanism model for the formation of college students' digital detox intention (as shown in Figure 2), exploring the transformation relationships and influence effects among perceived context (perceived awareness, perceived evaluation, perceived benefits), perceived threat (perceived susceptibility, perceived severity), digital detox intention, and sense of self-determination.

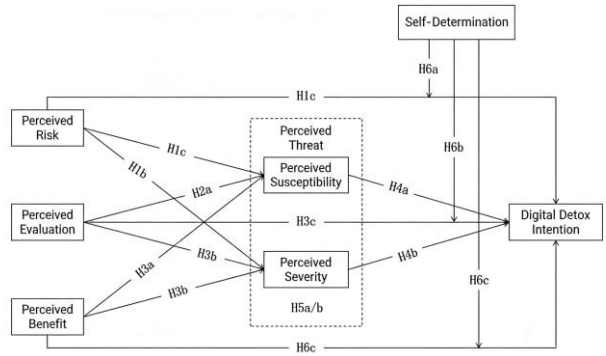

Figure 2. Model of Formation Mechanism for College Students' Digital Detachment Intention

IV. Research Methods and Variable Testing

A. Data collection

The questionnaire for this study was designed and collected using Wenjuanxing (a Chinese online survey platform). The survey targeted college students representative of "digital natives," yielding 231 valid responses with a 92.11% response rate. Data analysis was conducted using SPSS to examine characteristics of the 231 valid samples. Gender distribution showed a significant imbalance, with females accounting for 64.88% and males 35.12%, indicating that women are more likely to exhibit digital detox tendencies. Educational background analysis revealed that 61% of respondents held bachelor's degrees and 39% had associate degrees, with bachelor's degree holders demonstrating stronger willingness to engage in digital detox under perceived risks.

B. Variable test

The seven variables in this study are derived from existing research by domestic and international scholars and revised to align with digital detoxification contexts. All measurement items are quantified using Likert scale (1-5), where scores indicate levels of disagreement: strongly disagree, somewhat disagree, neutral, somewhat agree, and strongly agree. Detailed descriptions of measurement items are presented in Table 1. Among these, perceived awareness, perceived evaluation, and perceived benefits constitute perceived situational factors, while perceived susceptibility and perceived severity within perceived risk serve as mediating variables. Self-determination sense functions as a moderating variable, examining how high versus low levels of self-determination influence digital detoxification outcomes.

TABLE 1. Measurement Items for Research Variables on College Students' Digital Detachment Intention

Variable	Name of index	Indicator content	Source
perceptual consciousness (PC)	PC1	Excessive immersion in the digital world may have an impact on me.	Wang Xiwei et al. (2016)
	PC2	I may be affected by digital addiction.	
	PC3	I am likely to be affected by excessive use of digital applications.	
	PC4	Digital addiction may lead to severe problems for me	
Perceived Evaluation (PE)	PE1	Excessive immersion in the digital world leaves me feeling helpless	Roesch et al. (2005)
	PE2	Excessive immersion in the digital world induces anxiety	
	PE3	Immersed in the digital world has led to a loss of social connections.	
	PE4	I believe the emergence of digital addiction is beyond my control.	
perceived income (PG)	PG1	Immersing myself in the digital world brings me joy	Mallettetal. (2007)
	PG2	Immersing myself in the digital world has enabled me to access more information.	
	PG3	In the digital world, I can achieve greater satisfaction.	
Perceived susceptibility (PSU)	PSU1	I know I'm overusing digital apps.	XIAO.X (2019)
	PSU2	I feel uncomfortable when using digital media excessively	
	PSU3	Digital addiction may adversely affect my life	
	PSU4	I am aware of my digital addiction behavior.	
Perceived severity (PSE)	PSE1	Digital addiction has had severe negative impacts on me.	XIAO.X (2019)
	PSE2	Digital addiction is highly detrimental to my well-being.	
	PSE3	Digital addiction will cause me serious problems.	
	PSE4	Excessive immersion in the digital world poses a risk to me	
Digital detoxification (DW)	DW1	I consciously avoid excessive numerical behaviors.	Chen et al. (2022)
	DW2	I will employ effective methods to prevent digital addiction.	
	DW3	I will adopt effective measures to address digital addiction.	
	DW4	I will make every effort to avoid developing digital addiction.	
sense of self-determination (SE)	SE1	I believe I need to undergo digital detoxification.	Dahl (2007)
	SE2	I believe I have the capacity to mitigate the risks of digital addiction.	
	SE3	I engage in digital detoxification to maintain social relationships.	

Gu Yue, "Research on the Impact of Risk Perception and Self-Determination on College Students' Digital Detachment Intention," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 10, pp. 236-244, 2026.

V. DATA ANALYSIS

Building upon descriptive statistics, this study employs Smart PLS software to analyze data and validate research hypotheses from previous studies. Based on structural equation modeling algorithms, Smart PLS enables assessment of theoretical model fit while supporting simultaneous analysis of multiple variables in causal relationships.

A. Reliability and validity testing

This study employed Cronbach's α coefficient to assess scale reliability. Most latent variables demonstrated α coefficients exceeding 0.7, with PG's α coefficient at 0.681 falling within the minimum acceptable range. Overall, the scale indicators exhibit reliable performance. All measurement scales developed in this study were based on prior scholarly research and adapted to incorporate characteristics of popular online dramas, thus meeting content validity requirements. External loadings for all observed variables in Table 2 exceeded the standard threshold of 0.7. Additionally, composite reliability (CR) surpassed 0.8 (standard: CR≥0.6), while average variance extracted (AVE) exceeded 0.572 (standard: AVE≥0.5), indicating strong internal consistency and effective aggregation effects. Furthermore, the square root of AVE values in Table 3 demonstrated higher correlation coefficients compared to other latent variables, confirming excellent discriminant validity of the scale.

TABLE 2. Results of Variable Reliability and Validity Testing

Latent variable	Cronbach's Alpha (α)	Composite reliability (CR)	Average Variance Estimator (AVE)	Manifest variable indicator	Factor loading
PC	0.718	0.842	0.639	PC1	0.808
				PC2	0.814
				PC3	0.776
				PC4	0.823
PE	0.813	0.87	0.572	PE1	0.758
				PE2	0.732
				PE3	0.760
				PE4	0.783
PG	0.731	0.848	0.65	PG1	0.809
				PG2	0.814
				PG3	0.795
PSU	0.812	0.876	0.639	PSU1	0.831
				PSU2	0.811
				PSU3	0.786
				PSU4	0.767
PSE	0.766	0.851	0.588	PSE1	0.803
				PSE2	0.801
				PSE3	0.743
				PSE4	0.718
DW	0.715	0.84	0.638	DW1	0.811
				DW2	0.844
				DW3	0.863
				DW4	0.844
SE	0.809	0.887	0.723	SE1	0.814
				SE2	0.848
				SE3	0.743

TABLE 3. Results of Discriminant Validity Analysis

variable	PC	PE	PG	PSU	PSE	DW	SE
PC	0.782						
PE	0.628	0.635					
PG	0.600	0.800	0.806				
PSU	0.603	0.652	0.654	0.757			
PSE	0.570	0.592	0.508	0.535	0.851		
DW	0.615	0.700	0.655	0.672	0.627	0.767	
SE	0.565	0.657	0.581	0.720	0.461	0.627	0.799

TABLE 4. Results of Model Hypothesis Verification

Hypothesis	Way	Path coefficient	Sample mean	Standard deviation	T statistics	P price	Check if the assumption holds
H1a	PC→PSU	0.320	0.319	0.059	5.406	0.000	yes
H1b	PC→PSE	0.409	0.408	0.053	7.735	0.000	yes
H1c	PC→DW	0.391	0.390	0.049	8.050	0.000	yes
H2a	PE→PSU	0.165	0.165	0.065	2.553	0.011	yes
H2b	PE→PSE	0.214	0.215	0.057	3.777	0.000	yes
H2c	PE→DW	0.307	0.308	0.046	6.637	0.000	yes
H3a	PG→PSU	0.283	0.285	0.045	6.225	0.000	yes
H3b	PG→PSE	0.098	0.094	0.054	1.799	0.072	deny
H3c	PG→DW	0.089	0.09	0.049	1.832	0.067	deny
H4a	PSU→DW	0.125	0.126	0.053	2.366	0.018	yes
H4b	PSE→DW	0.292	0.292	0.063	4.666	0.000	yes

Gu Yue, "Research on the Impact of Risk Perception and Self-Determination on College Students' Digital Detachment Intention," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 10, pp. 236-244, 2026.

B. Structural Equation Modeling and Research Hypothesis Testing

This study employed structural equation modeling to validate research hypotheses. Standardized root mean square residual (SRMR) was used to assess the average magnitude of observed versus expected correlation matrix differences, which falls under the category of absolute goodness-of-fit indices. An SRMR value below 0.1 is considered acceptable, while the stricter threshold of SRMR <0.8 was met in this study with a value of 0.066. A RMS Theta value below 0.12 indicates optimal model fit, and the observed RMS Theta value of 0.121 supports this conclusion. Data presented in Table 4 were derived through bootstrapping calculations using Smart PLS3.0 software.

As shown in Table 4, the T-statistics for H1a/b/c, H2a/b/c, H3a/b/c, and H4a/b all exceeded 1.96 with P-values below 0.05. Therefore, Hypothesis H1a/b/c is supported, indicating that perceived awareness positively influences perceived susceptibility, perceived severity, and detoxification willingness. Hypothesis H2a/b/c is validated, demonstrating that perceived evaluation positively affects perceived susceptibility, perceived severity, and detoxification willingness. Hypothesis H2a is confirmed, showing that perceived benefits positively impact perceived susceptibility and perceived severity, while Hypothesis H2b/c is not supported due to insignificant effects on perceived severity and detoxification willingness. Hypothesis H4a/b is established, confirming that perceived susceptibility and perceived severity both positively influence college students' digital detoxification willingness.

C. Testing of Mediating and Moderating Effects

This study employed the Bootstrap method for mediation effect analysis, setting the Bootstrap sample size to 2000 and using the 2.5th and 97.5th percentiles of the estimated values to estimate the 95% confidence interval. A VAF (mediation effect proportion) ≥80% indicates complete mediation, 20% ≤ VAF <80% indicates partial mediation, and VAF <20% indicates no mediation effect.

Table 5 results demonstrate that perceived susceptibility partially mediates the relationship between perceived awareness and digital detox intention (T=3.386, P<0.05), with a mediation effect size of 36% and a bias-corrected interval excluding zero, confirming Hypothesis H5a (perceived susceptibility mediates between perceived awareness and digital detox intention). Perceived severity also partially mediates this relationship (T=2.197, P<0.05), with a mediation effect size of 22% and a bias-corrected interval excluding zero, supporting Hypothesis H5b. Perceived susceptibility fully mediates the relationship between perceived evaluation and digital detox intention (T=2.196, P<0.01), with a mediation effect size of 34%. The presence of significant indirect effects and main effects despite non-significant direct effects indicates complete mediation, validating Hypothesis H5a (perceived susceptibility mediates between perceived evaluation and digital detox intention). Similarly, perceived severity fully mediates this relationship (T=3.829, P<0.05), with a mediation effect size of 54% and a bias-corrected interval excluding zero, supporting Hypothesis H5b. Perceived susceptibility partially mediates the relationship between perceived benefits and digital detox intention (T=3.231, P<0.05), accounting for 23% of the mediation effect. The bias-corrected interval does not include zero, confirming Hypothesis H5a (that perceived susceptibility mediates the relationship between perceived benefits and digital detox intention).

TABLE 5. Results of mediating effect testing

intermediary pathway	Effect type	Effect size	Proportion of mediating effect	Bias Correction Confidence Interval		P price
				lower limit	superior limit	
PC→PSU→DW	**gross effect**	0.191	36%	0.169	0.333	0.000
	direct effect	0.122(2.993)		0.045	0.202	0.003
	indigo effect	0.069(3.386)		0.036	0.117	0.001
PC→PSE→DW	**gross effect**	0.157	22%	0.169	0.333	0.000
	direct effect	0.122(2.993)		0.045	0.202	0.003
	indigo effect	0.035(2.197)		0.005	0.069	0.028
PE→PSU→DW	**gross effect**	0.149	34%	0.185	0.408	0.000
	direct effect	0.098 (1.799)		-0.003	0.211	0.072
	indigo effect	0.051 (2.196)		0.010	0.104	0.028
PE→PSE→DW	**gross effect**	0.212	54%	0.185	0.408	0.000
	direct effect	0.098 (1.799)		-0.003	0.211	0.072
	indigo effect	0.114 (3.829)		0.065	0.182	0.000
PG→PSU→DW	**gross effect**	0.273	23%	0.18	0.418	0.000
	direct effect	0.211 (3.631)		0.097	0.324	0.000
	indigo effect	0.062 (3.231)		0.030	0.107	0.001

TABLE 6. Structural equation model estimation results of adjustment effects

Variable relationship	Regulatory effect	Estimation coefficient	Sample value (M)	Standard (STDEV)	T-statistic (|O/STDEV|)	P price
PC×DW	Regulation of SE	0.103	0.100	0.074	1.976	0.048
PE×DW	Regulation of SE	0.106	0.101	0.053	2.015	0.044

To investigate whether self-determination sense mediates the relationship between perceived consciousness, perceived evaluation, and digital detox intention, this study employed bootstrapping methodology with mean-centering of product terms and product-based calculation methods. Significant interaction term coefficients indicated the presence of moderating effects. As shown in Table 6, self-determination sense positively moderated the relationship between perceived consciousness and digital detox intention, confirming Hypothesis H6a. This suggests that individuals with higher self-determination sense experience greater influence from perceived consciousness on their digital detox intention, while those with lower self-determination sense show reduced sensitivity to such perceptions. Similarly, self-determination sense positively moderated the relationship between perceived evaluation and digital detox intention, validating Hypothesis H6b. These findings demonstrate that individuals with stronger self-determination sense exhibit greater susceptibility to perceived evaluation impacts on their digital detox intentions.

In conclusion, after conducting reliability and validity testing, structural equation modeling with hypothesis testing, as well as mediation and moderation effect analysis, the modified model is presented as follows:

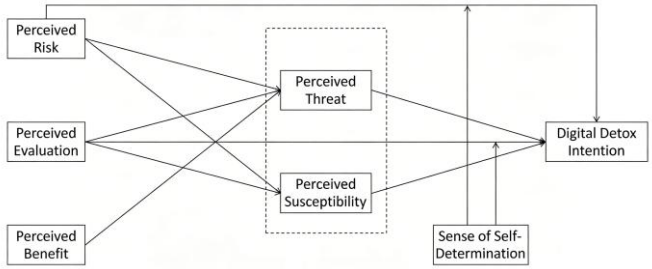

Figure 3. Modified Model for Formation of Digital Detachment Intention Among College Students

VI. Summary and Discussion

A. Perceived evaluation significantly influences users' digital detox behavior

Perceived evaluation plays a pivotal role in users 'digital detox behaviors. When users perceive digital media negatively, they are more likely to develop intentions and behaviors related to digital detox. Specifically, if users experience negative emotions such as anxiety, loneliness, or boredom from digital media, they may begin reflecting on their media consumption habits and seek ways to reduce digital engagement. This perception may stem from users' critical examination of digital media content or their awareness of how media usage impacts personal lives. When users realize they spend excessive time on social media while neglecting face-to-face interactions with family and friends, they may develop negative perceptions that could lead to reduced social media use and increased in-person communication activities. Furthermore, users with negative perceptions of digital media are more likely to seek support for digital detox. They may join digital detox communities, attend relevant workshops or seminars, or consult psychological counselors.

To promote digital detox behaviors, it is essential to focus on users' perceived evaluations. This involves educating users on how to use digital media healthily and how to derive positive values and experiences from digital media, thereby guiding them to form positive perceptions of digital media. Additionally, support and resources can be provided to assist users in achieving their digital detox goals.

B. Mediating effect of perceived severity

Perceived severity plays a crucial mediating role among awareness of consequences, evaluation of digital media use, and users 'willingness to disengage. When users become aware of the serious repercussions of excessive social media use, mobile app dependency, or online browsing—including time wastage, social isolation, attention deficits, sleep quality deterioration, and even adverse impacts on mental and physical health—they tend to experience heightened severity perception. This intensified awareness influences their cognitive evaluation, prompting them to scrutinize their digital media habits more critically and reflect deeply on their behaviors. Such introspection may help users recognize their digital dependency levels and the negative impacts on daily life. Furthermore, heightened severity perception combined with negative evaluations can stimulate disengagement intentions, driving users to seek mitigation strategies like time limits, app removals, reduced social media usage, or alternative activities that promote well-being. Therefore, fostering digital detox behaviors can be achieved by elevating users' awareness of digital media consequences. For instance, educational campaigns, public awareness initiatives, and information dissemination can help users recognize the severe consequences of excessive digital media use, thereby strengthening their resolve to reduce engagement.

C. The Regulatory Role of Self-Determination Sense

Self-determination sense plays a crucial moderating role among perceptual awareness, perceptual evaluation, and user detoxification willingness. Self-determination sense refers to an individual's perception of autonomy and control over their behaviors and decisions. Individuals with higher self-determination sense are more likely to make choices based on intrinsic motivations and values rather than external pressures or dependence on others. Users with strong self-determination sense tend to have greater autonomy in recognizing their digital media usage behaviors, demonstrating stronger control and accountability over their actions. This heightened awareness enables them to more effectively monitor time allocation, frequency, and consequences of digital media consumption, allowing for more balanced evaluation of its benefits and drawbacks. Secondly, users with high self-determination sense are more inclined to assess the value of digital media use through personal standards and values, focusing on alignment with individual goals rather than being swayed by external factors like social media likes or comments. Finally, individuals with strong self-determination sense exhibit greater motivation to proactively reduce digital media consumption. Guided by intrinsic motivations and

Gu Yue, "Research on the Impact of Risk Perception and Self-Determination on College Students' Digital Detachment Intention," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 10, pp. 236-244, 2026.

personal objectives, they are more likely to seek alternative healthy activities, develop self-control skills, and persist in detoxification plans. In contrast, users with low self-determination sense are more susceptible to external influences, lacking both motivation and autonomy for detoxification. Therefore, by providing self-supportive environments, encouraging user participation in decision-making, and cultivating users 'self-control abilities, we can enhance users' sense of self-determination, strengthen their autonomy and control in digital media usage, and ultimately increase their willingness to quit addiction.

D. Undergraduate students exhibit higher willingness for digital detoxification compared to college diploma students.

Undergraduate students typically experience greater academic pressure and motivation for self-improvement, placing higher emphasis on personal development and career planning. This makes them more aware of potential risks and negative impacts associated with digital media usage, driving them to actively seek ways to reduce dependence on digital platforms. In contrast, college students in vocational programs often operate within relatively relaxed academic environments with lower academic expectations. Their focus tends to be on professional skills and practical applications, resulting in less awareness of digital media's adverse effects. Such differences may explain why undergraduates demonstrate stronger willingness to adopt digital detox strategies to enhance time management efficiency, academic productivity, and personal development balance. These findings suggest that digital detox education and support programs targeting different educational levels should account for these variations, providing tailored guidance and resources to address specific needs.

REFERENCES

[1] Kemp, S. (2023). Digital 2023 April global statshot report. DataReportal. https://datareportal.com/reports/digital-2023-april-global-statshot

[2] Allcott, H., Gentzkow, M., & Song, L. (2022). Digital addiction. American Economic Review, 112(7), 2424–2463.

[3] Bauer, R. A. (1960). Consumer behavior as risk taking. In R. S. Hancock (Ed.), Dynamic marketing for a changing world (pp. 389–398). American Marketing Association.

[4] Jun, J. W., Lee, H. S., & Park, J. H. (2009). Roles of media exposure and interpersonal experiences on country brand: The mediated risk perception model. Journal of Promotion Management, 15(3), 321–339.

[5] Adam, B., Beck, U., & Long, J. F. (2005). Risk society and its transcendence: Key issues in social theory (Y. Zhao et al., Trans.). Beijing Publishing Group. [Original work published in English? Actually German/English, but the translation is Chinese; this entry is kept as translated English title]

[6] Loewenstein, G. F., Weber, E. U., Hsee, C. K., & Welch, N. (2001). Risk as feelings. Psychological Bulletin, 127(2), 267–286.

[7] Wu, L., & Zhang, X. (2012). Psychological measurement paradigms in risk perception research. Journal of Nanjing Normal University (Social Science Edition), (2), 95–102. [in Chinese]

[8] Finucane, M. L., Alhakami, A., Slovic, P., & Johnson, S. M. (2000). The affect heuristic in judgments of risks and benefits. Journal of Behavioral Decision Making, 13(1), 1–17.

[9] Liang, H., & Xue, Y. (2010). Understanding security behaviors in personal computer usage: A threat avoidance perspective. Journal of the Association for Information Systems, 11(7), 394–413.

[10] Boysen, S., Hewitt, B., Gibbs, D., & O' Brien, A. (2019). Refining the threat calculus of technology threat avoidance theory. Communications of the Association for Information Systems, 45(1), 95–115.

[11] Carpenter, D., Young, D. K., Barrett, P., & McLeod, A. (2019). Refining technology threat avoidance theory. Communications of the Association for Information Systems, 44(22), 380–407.

[12] Peng, M. H., & Hwang, H. G. (2021). An empirical study to explore the adoption of e-learning social media platform in Taiwan: An integrated conceptual adoption framework based on technology acceptance model and technology threat avoidance theory. Sustainability, 13(17), 9946.

[13] Syvertsen, T. (2020). Digital detox: Disconnected politics. Emerald.

[14] Schmuck, D. (2020). Is digital detox effective? Exploring the effects of digital detox applications on smartphone use issues and youth well-being through multivariate analysis. Cyberpsychology, Behavior, and Social Networking, 23(8), 526–532.

[15] Bandura, A. (1982). Self-efficacy mechanism in human agency. American Psychologist, 37(2), 122–147.

[16] Hu, M. (2023). How do users develop resistance? An interactive study on the relationship between digital addiction and digital detoxification. Journalism Reporter, (6), 86–100. [in Chinese]

[17] Chang, J. (2023). When "disconnection" becomes a luxury: Media cultural imagination of digital detoxification. Journal of Southwest Minzu University (Humanities and Social Sciences Edition), 44(9), 119–129. [in Chinese]

[18] Tokunaga, R. S. (2015). Perspectives on internet addiction, internet use issues, and insufficient self-regulation: Contributions from communication studies research. International Journal of Communication, 39(1), 131–161.

[19] Zhang, Y., Zhang, D., Xiong, L., & Wang, Y. (2018). The relationship between mobile phone addiction and depression and anxiety in college students: An analysis of mediating and moderating effects. Chinese Journal of Clinical Psychology, 26(6), 1086–1090. [in Chinese]

[20] Tao, L., Rong, F., Zhang, J., Zhu, L., Zhang, L., Tao, S., Zhang, M., Su, P., Zhang, Z., & Hao, J. (2014). A study on the correlation between emotional disorders and internet addiction among vocational college students. Chinese Journal of School Health, 35(11), 1660–1662+1665. [in Chinese]

[21] Ozdemir, M., & Goktas, L. S. (2021). Research trends on digital detox holidays: A bibliometric analysis, 2012–2020. Tourism & Management Studies, 17(3), 21–35.

[22] Vanden Abeele, M. M. (2021). Digital wellbeing as a dynamic construct. Communication Theory, 31(4), 932–95.