

# Internet utilization among college students in China: the role of ideological and political education in fostering academic performance

Li' an Qu

Graduate School, Angeles University Foundation, Angeles City, Philippines

Elvira S. Balinas

Graduate School, Angeles University Foundation, Angeles City, Philippines

*Abstract: This study investigates internet utilization among third-year college students in Yantai City, China, using a Sequential Explanatory Mixed Methods Design. The research locale includes four purposefully selected universities (A, B, C, and D) in the Y district. A sample of 380 3rd year college students completed the researcher-made Internet Behavior and Academic Performance Assessment Tool (IBAPAT). Furthermore, 12 students participated in a semi-structured interview. Statistical analysis using descriptive statistics, correlation analysis, ANOVA, and MANOVA were used to generate findings based on the collected quantitative data. Meanwhile, thematic analysis of interviews with ideological and political education (IPE) students was conducted to generate themes and patterns within qualitative data. Objectives include assessing patterns of internet utilization, prevalence of internet addiction, and correlations with academic performance. The study aims to contribute to theoretical research on network ideological and political education, guide social forces, and enhance college students' all-round development. Ethical considerations ensure participant consent, confidentiality, and data protection. The findings will inform interventions to mitigate internet addiction among college students.*

*Keywords: Internet utilization; Internet addiction; Ideological and political education; academic performance*

## INTRODUCTION

The advent of the all-media era has ushered in the rapid development of the Internet, with social networks playing an increasingly prominent role in individuals' daily lives. College students, known to be the most active users of the internet, are at the forefront of China's online community. However, this digital transformation poses some challenges, leading to an alarming surge in Internet addiction among this population. Recent statistics indicate that the number of college students in China grappling with Internet addiction has surpassed 300,000, with a staggering 40,000 classified as severely addicted (Han, 2021). This trend reflects a broader global concern, as evidenced by Shao et al.'s (2018) analysis, which revealed that Chinese college students exhibited an Internet addiction detection rate 11% higher than other countries. This escalating crisis warrants immediate attention and proactive measures.

The number of Chinese "netizens" continues to increase, as highlighted by the China Academy of Cyberspace's "China Internet Development Report 2022" and "World Internet Development Report 2022" (CAC, 2022; World Internet Development Report, 2022). According to these reports, as of June 2022, China boasts a staggering 1.051 billion Internet users, with a remarkable Internet penetration rate of 74.4%. Among these users, college students constitute a significant demographic, accounting for 26.0% of the online population (Tian, 2022).

Internet addiction among college students in China is a prevalent and concerning issue with implications for personal, academic, and societal well-being. With the widespread availability of digital devices and internet access, college students find themselves at a higher risk of developing problematic internet use patterns. This addiction can result in various psychological problems, including anxiety, depression, and loneliness, that can also affect their personal well-being (Shen et al., 2020).

In addressing this issue, Ideological and political education teachers play a vital role in preventing internet addiction among college students in China. These dedicated ideological and political education teachers hold a crucial and influential role in the lives of college students, shaping their values and nurturing their critical thinking skills. They are instrumental in guiding young minds' moral and

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ethical development (Zhang, L.W.2023).

Moreover, they serve as mentors, providing counseling and unwavering support to students grappling with addiction issues. Through their active involvement and guidance, they may substantially reduce the prevalence of internet addiction and mitigate its adverse effects, thereby contributing to the holistic development and prosperity of college students and, ultimately, enhancing the well-being of society as a whole.

This paper used the IBAPAT and semi-structured interview questionnaire to investigate the current status and patterns of internet utilization among third-year college students in Yantai City, China. Further, it analyzed associations between internet use and internet addiction, with academic performance being the main variables of this study. Moreover, it evaluated the correlation between internet addiction and academic performance of 3rd-year college students in the same locale. It assessed the role of ideological and political education teachers in promoting responsible internet usage among students and influencing positive online behavior from the students' perspectives.

## **STUDY OBJECTIVES**

### **2.1. General Objective**

This study seeks to investigate the status of internet utilization among college students in Yantai City, China, and to examine associations between specific internet utilization patterns, internet addiction, and academic performance. It further explores the potential role of ideological and political education in fostering responsible internet usage, which may contribute to improved academic performance.

### **2.2. Specific Objectives**

2.2.1 Describe the participants' profile in terms of age, gender, and college major.

2.2.2 Describe the academic performance of the students in terms of their self-reported GPA

2.2.3 Assess the current status and patterns of internet utilization among college students in Yantai City, China, and analyze their association with potential risks for internet addiction and academic performance (based on self-reported coded GPA) in terms of age, gender, and college major.

2.2.4 Examine the role of ideological and political education in promoting responsible internet usage among students.

## **REVIEW OF RELATED LITERATURE**

In the era of all-media development, the governance of internet addiction among college students is an important issue. As society progresses, research on internet addiction is also continuously developing, resulting in fruitful research outcomes. At the same time, ideological and political education, as a compulsory course in universities, serves as a main battlefield for the growth and development of college students, playing an important role in preventing and treating internet addiction. Therefore, a literature review will be conducted on these two main aspects. College students in China demonstrate alarming rates of internet addiction, which potentially harms not just their academic performance but also their well-being (Shen, Y.Q et al.,2024; Zhang Y.H et al.,2023; Zhang L et al., 2024). To establish a solid foundation for this study, reviewing the existing literature and studies exploring the relationship between internet utilization behaviors or patterns and how they influence academic performance is critical. Further, it is also within the interest of this research to investigate the role of ideological and political education in harnessing important skills that equip students with abilities to develop positive online behavior.

### **3.1. Aspects of Internet Addiction**

#### **3.1.1 The concept of Internet addiction**

The concept of Internet addiction was first defined by American Psychologist Shotton in 1989. Ivan Goldberg in the US discovered the phenomenon of "Internet addiction" and proposed the concept of "Internet Addiction Disorder" (IAD) using the diagnostic criteria for drug dependence from the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders in 1994. K.S. Young (1996) developed the concept of "Pathological Internet Use" (PIU) based on the diagnostic criteria for pathological gambling, defining internet addiction as an impulse-control disorder.

#### **3.1.2. The causes of Internet addiction**

The anonymity, convenience, and escapism of the Internet lead to Internet addiction (Young K.S, 2004). Some researchers also suggest that the "disinhibition" of the internet itself can be addictive. Studies in China have found that the internet can better facilitate information acquisition, online chatting, and meeting with friends, and it has a greater impact on female data aggregation. These internet features align with the psychological characteristics of college students, creating a strong attraction that makes it difficult for them to break free from this virtual reality (Liu et al., 2023).

Numerous studies have found that the psychological mechanisms behind internet addiction are quite complex. Various factors are involved, such as needs, motivations, and driving forces. Individuals who are addicted to the internet often exhibit certain personality traits, such as self-discipline, a tendency towards loneliness (Wang L & Yu S.H., 2017), a desire for high sensation, loneliness, depression, and anxiety (Liu, J.Y, 2001), as well as low self-esteem (Ju, W., 2019).

In the context of school, Han Ling (2021) pointed out that there are too many compulsory courses in some college curricula, limiting students' freedom of choice. Some majors lack introductory courses, and there is a lack of relevance between courses. As a result, the courses students choose lack attractiveness, and may not feel a sense of accomplishment in their learning process. Zhu and Kong (2022) analyzed the factors influencing Internet addiction among college students through a questionnaire survey.

### 3.1.3 Internet Addiction among College Students in China and the Role of Educators

Internet addiction among college students in China has emerged as a pressing issue, reflecting the pervasive influence of the digital age on this demographic. According to a study by Nie et al. (2017), college students in China display a rising prevalence of internet addiction, with symptoms encompassing internet tolerance, compulsive internet use, withdrawal symptoms, time management problems, interpersonal issues, and health consequences. Furthermore, it was found that college students who have severe internet addiction are more prone to or at risk of having semantic verbal fluency problems and declining self-esteem (Wang, D.D., 2017). This research underscores the critical need to explore the extent and nature of internet addiction among college students in China while emphasizing the profound importance of educators, particularly ideological and political education teachers, in addressing this growing concern.

## 3.2. Ideological and political education

### 3.2.1 The concept and goals of ideological and political education

Zhang(2018) pointed out that ideological and political education is carried out around people and follows the concept of human care in higher education. It upholds the position of college students as the main subjects and takes their actual needs as the logical starting point and ultimate destination. It comprehensively analyzes the development laws of college students' thoughts and behaviors. It provides targeted ideological and political education to construct a spiritual home for college students, ultimately achieving their free and comprehensive development. The work of ideological and political education in universities aims to enhance students' basic moral cognition, thinking methods, and comprehensive literacy (Cui, 2023). Research by Hou (2023) has shown that ideological and political education has gradually become an important part of the education system in universities, and only by doing well in ideological and political education can we cultivate high-quality talents with comprehensive development in all aspects.

### 3.2.2. Potential impact of ideological and political education on digital health promotion

Jiang (2022) has pointed out that ideological and political education can effectively guide college students to form correct values, adjust their own mentality, consciously regulate themselves, and constantly enrich and improve themselves, thereby reducing their dependence on the internet. Online ideological and political education has functions such as guidance, guarantee, education, development, communication, penetration, and regulation, which can intervene in internet addiction among college students (Tian, 2024).

3.2.3. The methods and effects of addressing internet addiction by ideological and political education teachers.

Teachers of ideological and political theory courses mainly impart to university students the ability to dialectically analyze problems and recognize the laws of historical and social development. Teachers of ideological and political education understand the issues university students face with internet addiction through their work and address them (Dai, 2023). They utilize the perspectives and methods of information theory and establish a monitoring system for internet addiction in universities through acquiring, transmitting, and processing ideological information to effectively carry out ideological and political work with university students suffering from internet addiction (Wang L., 2022).

## 3.3. Future Research Perspectives (highlight gaps, significance)

The research on the causes of internet addiction among college students primarily focuses on factors such as the physiological and psychological characteristics of internet addicts and the characteristics of the internet itself. It has not thoroughly analyzed the essential reasons, such as social changes, confusion of societal values, rigid educational systems, and the lack of ideological and political education. In terms of intervention strategies, there is an emphasis on medical and psychological techniques. At the same time, fundamental measures such as college students' quality education, values education, and mental health education are overlooked. Therefore, there is still significant research space

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to explore the issue of internet addiction among college students from the ideological and political education perspective.

Based on a preventive perspective and rooted in Marxist relevant theories, this research explores various issues related to college students' internet addiction from ideological and political education perspectives, including their characteristics, types, causes, and harms, and finally, proposes feasible strategies. This benefits the theoretical research on network ideological and political education in universities.

### **METHODS**

This study utilized a sequential explanatory mixed method design, which has two distinct strands that are implemented consecutively: a quantitative strand, in which numeric data are collected and analyzed, followed by a qualitative strand, in which textual data are collected and analyzed (Ivankova et al., 2006). An explanatory sequential design often uses narrative data to explain or interpret numeric findings, especially those that are unexpected (Creswell et al., 2003). In the quantitative phase, a survey and a questionnaire were used to collect data on demographics and internet utilization. The students' academic performance was also analyzed quantitatively to investigate the internet utilization and levels of college students in select universities in the Y District of Yantai City, China. The researcher believes that this research method is appropriate to gain a profound understanding of the subject matter being investigated because it not only allows for an understanding of the prevalence of internet utilization practices and risks for addiction but also enables the researcher to gain a deep understanding of the actual lived experiences of the respondents/participants. In the first phase, 380 third-year college students from four (4) selected universities in Yantai City were selected using a purposive sampling method. These selected respondents took and completed the researcher-developed Internet Behavior and Academic Performance Assessment Tool (IBAPAT) and Questionnaire on Psychological Needs Network Satisfaction of College Students. The quantitative data was analyzed using inferential and descriptive statistics. In the qualitative phase, students were interviewed about the impact of ideological and political education teachers on their internet use and online behavior to provide in-depth analysis and insights on the role of political and ideological education in regulating or curbing internet addictions among college students in these select universities and perceptions of the impact of political and ideological education programs on their academic performances. A thematic analysis was used to analyze their responses. The integration of research findings from both phases may provide novel and useful information about the prevalence of internet addiction among college students in the Y District of Yantai City. This also sheds light on the best practices that ideological and political teachers use to prevent it from the students' perspectives. Ethical considerations are employed to ensure consent, confidentiality, and data protection throughout the study.

#### **4.1. Study Design and Locale**

This research used a Sequential Explanatory Mixed Methods Design, integrating both quantitative and qualitative approaches to investigate internet addiction among college students in Yantai City, China. The research locale comprised four universities (A, B, C, and D) in Y district, Yantai City, which were selected purposefully to provide a diverse participant pool. Yantai City, China, was chosen as the locale of this study because the researcher is familiar with the city's educational, structural, and technological structure. Further, the city also hosts several higher learning institutions with a varied student population, which can contribute to a better representation of student and teacher populations in the context of the objectives of this study. Moreover, the choice for 3rd year-level students is based on the idea that they have been using the internet for a sufficient period of time as they navigate university life. Also, third-year students provide a balance between sufficient exposure to the Internet and ongoing development. The study unfolded in two phases. In the initial quantitative phase, a large sample of 380 3rd year college students from these universities participated in structured surveys to gauge the extent of internet addiction and its associated factors. Following the quantitative phase, the qualitative component includes in-depth interviews with students regarding their views and experiences of the strategies employed by ideological and political education teachers in preventing internet addiction by helping them develop positive online behavior and productive internet utilization practices. This locale and research design allow for a comprehensive exploration of internet addiction in the context of Chinese college students and the vital role that ideological and political education plays in its prevention.

#### **4.2. Study Participants**

##### **4.2.1. Sample Size and Sampling**

The researcher selected four (4) universities in Yantai City, Shandong Province, China. To determine the sample size for the quantitative phase, the undergraduate student population of each of

these universities was identified and summarized in Table 1 below. The total target population was 99,500 undergraduate students in all four universities. Considering the difficulty of determining the total population of 3rd-year students in each of these universities, it was assumed that the student population was evenly distributed in all four-year levels. As such, the total 3rd-year population was estimated to be 24,875. Using Raosoft and setting a 95% confidence level and a margin of error of 0.05, the sample size was 380 students. The researcher aimed to select 380 3rd year college students who have completed four courses on "Ideological and Moral Cultivation and Legal Basis," "Basic Principles of Marxism," "Outline of Modern History of China," and "Mao Zedong Thought and Introduction to the Theoretical System of Socialism with Chinese Characteristics" at universities A, B, C, and D in Y district, Yantai City using a simple random sampling technique.

**Table 1** 3<sup>rd</sup> Year Student Population Distribution Across Four Universities

University	Total Population	3 <sup>rd</sup> Year Population	Proportion (%)	*Sample
A	27,000	6,750	27.13%	104
B	25,000	6,250	25.13%	95
C	25,000	6,250	25.13%	95
D	22,500	5,625	22.61%	86
Total	99,500	24,875	100%	380

\*Sample Size = 380

To ensure that each school was proportionately represented in the sample based on the size of its population, the sample size was multiplied by the proportion of each university's population with the total 3rd-year population in all four universities. To calculate sample allocation for each university, the following formula was used:

Sample Size for University X = Total Sample Size \* (Number of Students in X/Total 3rd year College Students in All Universities)

where X = each of the universities that is part of this study

#### 4.2.2. Inclusion and Exclusion Criteria

##### **Inclusion**

Student participants must be third-year students, regardless of their major, from the four universities and between the ages of 19 and 22.

Students must have completed these four (4) subjects: "Ideological and Moral Cultivation and Legal Basis," "Basic Principles of Marxism," "Outline of Modern History of China," and "Mao Zedong Thought and Introduction to the Theoretical System of Socialism with Chinese Characteristics."

##### **Exclusion**

Students who are not in the 3rd year level and have not taken the four subjects specified in the inclusion criteria will not be included.

Students with diagnosed learning disabilities or cognitive impairments that could significantly hinder their ability to understand the survey questions or interview prompts and provide reliable and accurate data.

Students with physical impairments such as difficulty hearing, verbal problems, or visual impairments that can affect the accuracy of their understanding, hearing, or reading of the questions or interview prompts and their respondents are excluded from this study.

#### 4.3. Research Instruments

The Internet Behavior and Academic Performance Assessment Tool (IBAPAT)

The test is a researcher-made questionnaire tailored to evaluate internet utilization patterns, identify potential signs of internet addiction, and analyze academic performance among junior college students in Yantai City, China. It is based on the standardized Internet Addiction Test (IAT). The main body of the questionnaire is divided into three sections, namely (1) internet utilization patterns, (2) internet addiction and (3) academic performance. The first two sections are comprised of five subsections each. For section 1, items 1-5 pertain to educational utilization; 6-10 are about the internet and entertainment; 11-15 are about social interactions; 16-20 pertain to academic and career engagement; and 21-25 are about online time. In section 2, items 26-30 are about compulsive internet use; 31-35 are about

INTERNET UTILIZATION AMONG COLLEGE STUDENTS IN CHINA: THE ROLE OF IDEOLOGICAL AND POLITICAL EDUCATION IN FOSTERING ACADEMIC PERFORMANCE withdrawal reactions; 36-40 are about tolerance; 41-45 are about interpersonal and health issues; and 46-50 are about time management issues. Section 3, the last section, contains ten items related to academic performance.

Scoring and Intervals: Utilizing a Likert scale with five response options, the IBAPAT scores each participant based on their mean scores across all questionnaire sections. The higher the mean scores, the higher the likelihood of the student being at risk of developing internet addiction or was already in the state of internet addiction. The mean scores were interpreted using the following intervals:

- Intervals:
- 1.00 – 1.80: Strongly Disagree
  - 1.81 – 2.60: Disagree
  - 2.61 – 3.40: Neutral
  - 3.41 – 4.20: Agree
  - 4.21 – 5.00: Strongly Agree

This tool measures variables identified in Specific Objectives 2.2.1 and 2.2.2. (Appended)

**Semi-structured Interview Guide for the students**

Interview questionnaire on the impact of four ideological and political courses on the 3rd year students' excessive use of the Internet after studying them

Using interview questions, two students with the highest and lowest scores were selected from each of the four schools based on the pre-IBAPAT questionnaire, totaling 16 students. Investigating the impact of four Civics courses on students' academic performance and change of attitude towards excessive Internet use, the impact of Civics on students' addiction to the Internet was concluded through the interviews with students and the results of the four Civics courses and the subsequent academic performance provided by the students.

**RESULTS AND DISCUSSIONS**

This section presents the results and discusses research findings based on quantitative and qualitative data's statistical and thematic analysis. In this section, the researcher intends to fulfill the following research objectives: (1) to describe the profile of the participants in terms age, gender, and college major; (2) to describe the academic performance of the students in terms of their self-reported GPA; (3) to investigate the current status and patterns of internet utilization among college students in Yantai City, China, and analyze their association with potential risks for internet addiction and academic performance (based on self-reported coded GPA) in terms of age, gender, and college major; and (4) to assess the role of ideological and political education in promoting responsible internet usage among students.

**5.1 Profile of the Respondents**

The respondents' profiles are described in terms of age, gender, and college major. Descriptive statistics was used to determine the distribution of these variables across all 380 respondents using frequency and percentage.

**Table 1** Profiles of Respondents in Terms of Age

Frequencies for AGE				
AGE	Frequency	Percent	Valid Percent	Cumulative Percent
19	95	25.000	25.000	25.000
20	86	22.632	22.632	47.632
21	92	24.211	24.211	71.842
22	107	28.158	28.158	100.000
Missing	0	0.000		
<b>Total</b>	<b>380</b>	<b>100.000</b>		

The table above shows the distribution of respondents in terms of age. Respondents aged 22 represent the highest proportion of the sample size at 28.16%, followed by respondents aged 19 at 25%. Furthermore, 92 respondents represent the 21-year-old category (22.63%), and the lowest proportion is 19 years old, representing 22.63% of the sample size.

**Table 3** Profiles of Respondents in Terms of Gender

<b>Frequencies for GENDER</b>				
<b>GENDER</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Male	210	55.263	55.263	55.263
Female	170	44.737	44.737	100.000
Missing	0	0.000		
<b>Total</b>	<b>380</b>	<b>100.000</b>		

The table above shows the distribution of respondents in terms of gender. Using descriptive statistics, it has been found that male respondents represented more than half of the sample size at 55.26% in relation to their female counterparts, representing 44.74% of the total number of respondents.

**Table 4** Profile of Respondents in Terms of College Major

<b>Frequencies for MAJOR</b>				
<b>MAJOR</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Philosophy and Economics	56	14.737	14.737	14.737
Science	66	17.368	17.368	32.105
Engineering and Technology	64	16.842	16.842	48.947
Business and Management	60	15.789	15.789	64.737
Arts and Literature	65	17.105	17.105	81.842
Others	69	18.158	18.158	100.000
Missing	0	0.000		
<b>Total</b>	<b>380</b>	<b>100.000</b>		

The table above shows the distribution of respondents in terms of college majors. About 18.158% of the total respondents identified their college major as 'Others,' which indicated majors that were not specified in the questionnaire choices; this is followed by students from the sciences (17.368%), which comprised areas such as Mathematics, Physics, Chemistry, and Environmental Science among others. Arts and literature majors come in third, representing about 17.105% of the total sample size, while engineering and technology represent 16.842%. Third-year college students majoring in philosophy and economics came last, representing only 14.737% of the sample size.

## 5.2 Academic Performance in Terms of Self-Reported GPA

**Table 5** Descriptive Statistics of Coded Self-Reported GPA

	<b>GPA</b>
<b>Valid</b>	<b>380</b>
<b>Missing</b>	<b>0</b>
<b>Mean</b>	<b>2.468</b>
<b>Std. Deviation</b>	<b>1.112</b>
<b>Minimum</b>	<b>1.000</b>
<b>Maximum</b>	<b>4.000</b>

The table above describes the distribution of self-reported GPA of 380 respondents in the study. The grading system uses letter grades (A, A-, B+, B...) coded as 1, 2, 3, and 4... respectively, to convert them to measurable data. The results above show that the mean GPA revolves around code 2, which implies that it falls within the A- range, which ranges from 85.00% to 89.90%, with the highest reported GPA of A (min. 1.000) and the lowest of B- (max. 4.000). The standard deviation of 1.112, in this case, may not be necessarily meaningful as the intervals between these codes might not be equal and may not be consistent. This means the numerical difference between these ordinal data elicits no meaningful interpretation.



**Table 6** Distribution of Coded Self-Reported GPA

<b>Frequencies for GPA</b>				
<b>GPA</b>	<b>Frequency</b>	<b>Percent Valid</b>	<b>Percent</b>	<b>Cumulative Percent</b>
A	99	26.053	26.053	26.053
A-	92	24.211	24.211	50.263
B+	101	26.579	26.579	76.842
B	88	23.158	23.158	100.000
Missing	0	0.000		
<b>Total</b>	<b>380</b>	<b>100.000</b>		

The table above shows the distribution of self-reported GPAs of the 380 respondents. The distribution of GPAs appeared relatively even, with the highest frequencies for codes corresponding to B+ (82.00 – 84.90) and A (90.00 – 100.00). No respondents reported missing GPA data.

### 5.3 Current Status of Internet Utilization Among 3rd Year College Students

**Table7** Descriptive Statistics of Internet Addiction and Internet Utilization

<b>Descriptive Statistics</b>		
	<b>Internet Addiction</b>	<b>Internet Utilization</b>
<b>Valid</b>	380	380
<b>Missing</b>	0	0
<b>Mean</b>	2.007	3.790
<b>Std. Deviation</b>	0.170	0.165
<b>Minimum</b>	1.520	3.360
<b>Maximum</b>	2.520	4.240

- 1.00 – 1.80: Strongly Disagree
- 1.81 – 2.60: Disagree
- 2.61 – 3.40: Neutral
- 3.41 – 4.20: Agree
- 4.21 – 5.00: Strongly Agree

The table above shows the composite mean score of responses for internet utilization and internet addiction. The composite mean score for internet utilization is 3.79, which implies that respondents generally agree that while internet usage is indicated for entertainment and social interactions, they also use it for academic and career engagement and educational purposes such as research and learning. However, they rarely use the internet for entertainment, meaning they fall under either the “Disagree” or “Neutral” range. Furthermore, students also agree that they can control their time online, although they also agree that they use the internet for more than one hour daily. The standard deviation of 0.165 indicates less dispersion of data, which implies that responses among respondents are consistent in all items related to internet utilization.

Meanwhile, the data above also suggests that generally, they disagree with the statements related to internet addiction. Specifically, they do not agree that they have developed compulsive internet usage, with mean scores ranging from 1.96 to 2.04, both interpreted as “Disagree.” Also, students disagree that they have developed withdrawal symptoms such as feeling uneasy when not able to go online for a while (2.008) or feeling down when not able to go online for a period (1.992). Furthermore, they disagreed that their internet usage had increased over time and that they had less time socializing with friends. They also reported that they did not experience physical discomfort or have fewer interactions with family. Finally, students agree that their current internet utilization does not sacrifice their sleep, affect their physical health, or reduce their time for leisure activities. The low standard deviation of 0.170 means there is less dispersion in the data set, which suggests that the students' responses are generally uniform or consistent throughout all items related to internet addiction.



**Table 8** Correlation between Internet Utilization and Internet Addiction

<b>Pearson's Correlations</b>			
<b>Variable</b>		<b>Internet Utilization</b>	<b>Internet Addiction</b>
1. Internet Utilization	Pearson's r	—	
	p-value	—	
2. Internet Addiction	Pearson's r	0.009	—
	p-value	0.863	—

Considering the parametric nature of data, the researcher utilized Pearson's Correlation Coefficient R to determine if there is a significant relationship between internet utilization patterns and students' behaviors and their risk for internet addiction. The data findings suggest a very weak positive correlation between these two dependent variables; nevertheless, regardless of this positive correlation, its p-value (0.863) is much greater than the typical significance level of 0.05, meaning it is not statistically significant. In the context of this study, the internet utilization patterns of the students and their internet usage behaviors do not significantly influence their internet addiction tendencies.

**Table 9** Correlation between Internet Utilization and Self-Reported GPA

<b>Spearman's Correlations</b>			
<b>Variable</b>		<b>GPA</b>	<b>Internet Utilization</b>
1. GPA	Spearman's rho	—	
	p-value	—	
2. Internet Utilization	Spearman's rho	0.039	—
	p-value	0.452	—

The data involved in this analysis are continuous and categorical data, which require non-parametric analysis. In this case, the researcher utilized Spearman's rho to determine if there is a relationship between the internet utilization patterns of students and their academic performance, which is based on their self-reported GPA. The data shows that despite having a very low positive correlation of 0.039, the p-value is much greater than the typical significance level of 0.05 (0.452). This means that the internet utilization patterns and behaviors of the students do not influence the academic performance of the students, which is based on their self-reported GPA. The limitation of this interpretation is partly due to the accuracy or integrity of the student's self-reported GPAs; nevertheless, based on the findings, there is no significant correlation between these two variables.

**Table 10** Correlation between Internet Addiction and Self-Reported GPA

<b>Spearman's Correlations</b>			
<b>Variable</b>		<b>GPA</b>	<b>Risk for Internet Addiction</b>
1. GPA	Spearman's rho	—	
	p-value	—	
2. Internet Addiction	Spearman's rho	-0.074	—
	p-value	0.151	—

The table above shows the data findings on the correlation between internet addiction and academic performance based on the students' self-reported GPA. The analysis revealed a weak negative correlation coefficient of -0.074, which suggests that there is a slight tendency for high self-reported GPAs to be correlated with low risks for internet addiction. Nevertheless, the p-value of 0.151, which far exceeds the typical significance level of 0.05, indicates insufficient evidence to establish a significant correlation between the two variables.

**Moderating Impacts of College Major, Gender, and Age**

This researcher also analyzed the moderating impacts of fixed factors (independent variables) on the relationship between internet utilization and internet addiction. In this case, the researcher utilized Multivariate Analysis of Variance (MANOVA) to analyze the relationship between two dependent variables and one fixed (independent) variable.

**Table 11** Moderating Impact of College Major

MANOVA: Pillai Test						
Cases	df	Approx. F	Trace <sub>Pillai</sub>	Num df	Den df	p
(Intercept)	1	126005.792	0.999	2	373.000	< .001
MAJOR	5	1.933	0.050	10	748.000	0.038
Residuals	374					

The data shows that the TracePillai of 0.050 suggests a weak to moderate effect of college majors on the dependent variables (internet utilization and internet addiction). Furthermore, the p-value of 0.038, lower than 0.05, is significant and indicates that the dependent variables differ across different college majors. This means that the relationship between internet utilization and internet addiction may vary depending on the college major, suggesting that some college majors might have some degree of positive or negative effect on this relationship.

**Table 12** Moderating Impact of Gender

MANOVA: Pillai Test						
Cases	df	Approx. F	Trace <sub>Pillai</sub>	Num df	Den df	p
GENDER	1	2.843	0.015	2	377.000	0.059
Residuals	378					

The data above shows a very low TracePillai value of 0.015, which signifies a very weak effect of gender on the dependent variables. Interestingly, the p-value is marginally significant (0.059) but indicates that there is weak evidence that internet utilization and internet addiction are collectively affected by gender.

**Table 13** Moderating Impact of Gender

MANOVA: Pillai Test						
Cases	df	Approx. F	Trace <sub>Pillai</sub>	Num df	Den df	p
AGE	3	0.359	0.006	6	752.000	0.905
Residuals	376					

The table above shows a very small TracePillai value of 0.006, which indicates a weak impact of age on the dependent variables. Meanwhile, the high p-value of 0.905 suggests that age has no statistically significant effect on the dependent variables. This further means that there is insufficient evidence to conclude that age groups differ on the dependent variables of this study.

#### 5.4 Assessment of the Role of Ideological and Political Education

The role of ideological and political education in promoting responsible internet usage among students was explored through a qualitative approach employing an interview guide. The qualitative data was transcribed, organized, and thematically analyzed to yield meaningful results.

##### *A. Integration of Ideological and Political Education with Digital Responsibility*

One of the prevailing themes is the integration of ideological and political education with digital literacy. Students believe the knowledge and principles gained from these subjects/courses can significantly influence internet usage patterns and behaviors. Ideological and political principles often involve critical thinking, analyzing information sources, and recognizing bias. These skills are critically important in the utilization of the Internet, whether for entertainment or educational purposes. Some students believe that some ideological and political education courses do not mention online behavior; however, “*My Mao Zedong Thought course emphasize critical analysis and analyzing sources... important for spotting fake news online.*” These subjects focus on what’s important and teach students to harness “self-control,” which they can apply to their internet utilization behaviors and patterns. There is an overwhelming agreement that ideological and political education does not “specifically address internet behavior or how much time can we spend on the internet at a time.” Still, it provides an ethical and philosophical framework for ethical and collective responsibility and dialectical materialism, as discussed in Principles of Marxism.

##### *B. Challenges and Conflicts Practicing Responsible Internet Usage*

Participants have shared their challenges and conflicts in aligning their personal beliefs and values with responsible internet usage, particularly in ideological and political education. Some of them

are affected by the overwhelming influence of peer influences and external pressure. For instance, some students find it difficult to control the time they spend online sometimes because “*friends invite to play video games,*” which can take so much time and can significantly impact other aspects of life. Some of them also agree that many temptations online can cause them to behave irresponsibly, such as “*spending too much time on social media,*” which can be time-consuming. Social media platforms are programmed nowadays in a way that psychologically conditions the user to keep scrolling subconsciously. Participants believe that the ideological and political education allowed them to get grounded in their priorities and focus. They argue that Marxist philosophies have impacted their way of thinking, influencing how they deal with different things, including internet usage. For instance, one participant said that he has been influenced by *Mao Zedong's Thought principles of self-regulation and criticism, which encouraged the participant to “monitor my internet usage habits and see if what I am doing online is contributing to my well-being or the well-being of my family.”* While ideological and political education seems abstract and philosophical in nature, the way they are interpreted and translated into practical avenues for personal growth, self-regulation, and discipline contributed largely to how students use the internet.

### *C. Need for Additional Resources and Support*

While ideological and political education has some degree of influence on the development of responsible internet usage among participants, they have also believed that how it has been integrated into the curriculum lacks depth and practical implications. For instance, most of the teachers do not know how to relate the more abstract principles and concepts in these subjects with practical situations, such as the growing influence of the internet on people’s lives or how these principles can be used to develop robust mental and psychological conditions that enable an individual to use the internet responsibly. One participant says that “*perhaps one of the main areas of improvement in this aspect is that ideological and political education must be installed with claws... I mean, it must have practical applications.*” This implies that universities must design these subjects in a way that balances theory and practice – that it should not be left to the democratic interpretations of the students.

## CONCLUSIONS AND RECOMMENDATIONS

### 6.1 Conclusions

1. The sample size comprised 380 third-year college students with a relatively even distribution across gender, age, and college major.
2. Students’ mean self-reported GPA falls under the A- range (85.00 – 89.90), indicating a good academic performance.
3. Students reported moderate internet usage for different purposes, including social interaction, entertainment, and academics, although respondents say they rarely use the internet for entertainment. However, thematic analysis shows that some students sometimes struggle with peer influence and external pressure, which tempts them to use the internet irresponsibly, such as playing video games or scrolling social media for extended periods.
4. There was no significant correlation between internet utilization and internet addiction or academic performance based on the self-reported GPA.
5. College majors appear to slightly influence the relationship between internet utilization and addiction risks. This implies that the relationship between internet utilization and addiction varies across college major categories.
6. Students believe ideological and political education promotes responsible internet usage by acquiring critical thinking skills and self-regulation.
7. Balancing personal beliefs with responsible internet usage presents challenges for students due to peer influences and external pressure.
8. The nature in which ideological and political education are formatted, designed, or framed can be improved by focusing on theoretical and philosophical teachings and their practical implications and not just leaving these concepts to the democratic interpretations of the students.
9. Some potential limitations and weaknesses of the study include the generalizability of data, considering that it only included third-year students, which may not be representative of all college students in China or globally. Also, relying on self-reported GPA as the basis for academic performance may demonstrate a certain degree of weakness due to possible response bias or inaccuracies.
10. Other limitations and weaknesses of the study include the research design, which measures the phenomenon at a certain time and limits the ability to establish causal relationships between or among variables and monitor changes over time. Also, the study limited its scope to the impact of political and ideological education on internet utilization or risks for internet addiction but sidelines other confounding factors like socio-economic status, parental influence, or cultural factors, among others.

## 6.2 Recommendations

The following recommendations are proposed based on this study's research findings. While the statistical findings indicated a low risk for internet addiction and generally balanced internet utilization patterns, the thematic analysis explored students' perceptions of how ideological and political education (IPE) can support responsible online behavior and internet usage.

1. Integrate IPE with digital literacy education. This can be done by developing IPE curriculum modules that explicitly address responsible online behavior. It is also recommended that critical thinking skills gained through IPE be combined with practical digital literacy skills, such as evaluating the sources of information and online safety, to develop responsible online engagement in students and further lower internet addiction risks, as observed in the statistical findings.

2. Improve practical applications within IPE courses by going beyond the theoretical and philosophical concepts and discussions. This can be effectively done by encouraging students to analyze the impact of internet behavior on individuals from the perspective of IPE.

3. Develop the IPE teachers' capacity by equipping them with the necessary skills to bridge the gap between theory and practice. This allows them to connect IPE concepts with the realities of students' digital lives and the impact of emerging technologies on societies. This can be done by conducting workshops on integrating digital literacy topics using online examples.

4. Conduct further research on IPE effectiveness in influencing responsible online behavior, which may serve as a basis or framework for revising the IPE curriculum to incorporate practical applications of IPE concepts. Further, it might contribute to this body of research to carry out phenomenological studies on the impact of IPE on students' internet behavior patterns and self-reported well-being.

5. Encourage collaboration between IPE departments and technology experts to discuss how IPE can be best integrated with technology to create a more realistic IPE curriculum.

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