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Original Research Article

Media Literacy Enhancement of Chinese Youth: Case of Guangzhou University Students Regarding Information Fragmentation

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ABSTRACT

The objectives of this research were (1) To study the current situation of the media literacy level of Guangzhou youths regarding information fragmentation; (2) To develop the media literacy training model for Guangzhou youths regarding information fragmentation; and (3) To propose the media literacy training guideline for Guangzhou youths regarding information fragmentation. The research was mixed methodology research. Population was university students aged 18-22 in the Guangzhou area, totalling 1.6 million. The sample size was determined by Taro Yamane (error 0.05), obtained by purposive sampling method, totaling 400 and using randomize table to selected 60 students for 30 students of control group and 30 students of experimental group. The 10 key informants were 1 college media professional teacher, 1 college ideological and political lecturer, 1 college student majoring in media, 1 non-media major college student, 2 parents of college students in Guangzhou, 2 media experts form Guangzhou, and 2 practice person who related to media literacy. The instruments used for data collection were questionnaire, in-depth interview, documents, and non-participatory observation. The statistics used for data analysis were frequency, percentage, mean, standard deviation, Paired T-test, and Independence T-test.

The research findings revealed that; (1) Guangzhou is rich in higher education resources with important role in talent training and regional economic development. Moreover, it has faced the phenomenon of information fragmentation which lead the youth to misunderstanding, misdirection and information overload, (2) The media literacy training model for information fragmentation come from the curriculum which test from pre-test and post-test with significant level at (3) Researcher proposes information fragmentation of media literature training course comprises of 6 topics such as 1) exposure and use of social media, 2) safety and healthy use of media, 3) understanding and analysing media language and



images, 4) identifying and responding to fake news, 5) information technology laws and media use, and 6) building and maintaining trust in online media.

Introduction

In the digital era, the ways in which individuals' access, transmit, and process information have undergone profound transformation. One of the defining features of this transformation is information fragmentation, a phenomenon that characterizes contemporary information societies. This issue is particularly prominent in major urban centers such as Guangzhou, where information circulation is fast-paced, diverse, and widely dispersed. Consequently, challenges such as information overload, uneven information quality, and cognitive saturation have become increasingly prevalent. As the economic and cultural hub of South China, Guangzhou possesses abundant media resources and a highly dynamic information ecosystem. However, this richness also amplifies the challenges of fragmented information. University students, as key participants in the digital environment, are not only passive receivers of information but also active content producers and disseminators. Therefore, their ability to cultivate strong media literacy skills is crucial for navigating the complexities of today's information landscape. For contemporary university students, information fragmentation serves as a double-edged sword. On one hand, technological advancements have expanded access to knowledge, enhanced interactivity, and improved efficiency in information acquisition. On the other hand, excessive exposure to fragmented content can lead to information overload, anxiety, and reduced cognitive focus. The rapid influx of digital information often challenges students' capacity to process and synthesize knowledge meaningfully. Moreover, issues such as misinformation, declining source credibility, and shortened attention spans further complicate the learning environment. Privacy risks and data security threats are additional concerns; as personal information becomes increasingly vulnerable in digital spaces. These challenges are particularly pronounced in a city like Guangzhou, where information exchange is both rapid and diverse, making it imperative for university students to develop advanced media literacy competencies.

This study seeks to explore how media literacy can be effectively cultivated among university students in Guangzhou within the context of information fragmentation. It aims to enhance students' abilities to access, evaluate, and apply information critically, thereby enabling them to manage the challenges associated with information overload, misinformation, and digital distraction. The research focuses on the youth demographic in Guangzhou and proposes practical strategies for media literacy education and training. Furthermore, it provides policy recommendations for educational institutions, media organizations, and governmental bodies to promote a comprehensive and sustainable media literacy framework that supports the development of an informed and critically engaged youth population. As information fragmentation continues to intensify, insufficient media literacy can exacerbate issues such as misunderstanding, misinformation, and cognitive fatigue. By examining the current state of media literacy among Guangzhou university students, this study will propose targeted pedagogical strategies that foster critical thinking, information discernment, and analytical skills. These strategies aim to guide educational institutions in helping students adapt to the evolving information environment of the digital age.



In addition, the research will offer insights for media professionals, providing guidance on optimizing content production, improving information quality, and addressing the challenges of fragmented media consumption. Through these combined efforts, this study aspires to empower Guangzhou's university students to better navigate the complexities of the information era and contribute to the sustainable and ethical development of China's digital society.

Literature Review and Theoretical Framework

Literature Review

In the digital era, the explosion of information facilitated by the internet and social media platforms has reshaped how individuals' access, process, and share knowledge. However, this rapid flow of content has also led to information fragmentation, characterized by the disintegration of coherent narratives and the prevalence of fragmented, decontextualized, and often superficial information units (Bawden & Robinson, 2020). The phenomenon has posed new challenges for information consumers particularly youth who must navigate an overwhelming volume of content from multiple sources.

Media literacy, defined as the ability to access, analyze, evaluate, and create media in various forms (Livingstone, 2004), has thus become a crucial competency for young individuals to critically engage with media messages. Media literacy education equips learners with the cognitive and evaluative tools needed to discern credible information, resist misinformation, and participate meaningfully in the digital environment (Potter, 2018). For university students, who are among the most active digital consumers, the ability to interpret fragmented information and synthesize it into meaningful knowledge is an essential academic and social skill (Hobbs, 2021).

In China, the development of media literacy among youth has drawn increasing attention from both educators and policymakers. With rapid urbanization and technological advancement, cities like Guangzhou a key economic and cultural hub in South China have witnessed a surge in diversified media consumption patterns among university students. Studies indicate that while Chinese youth demonstrate high media engagement levels, their critical and reflective media literacy skills remain uneven (Zhang & Zhu, 2022). This imbalance is exacerbated by information fragmentation, where short-form videos, algorithmic feeds, and social media updates dominate attention spans and influence perceptions of truth and credibility.

Previous studies have highlighted both the opportunities and risks associated with fragmented information environments. On one hand, fragmented information facilitates quick learning, interactivity, and participation (Jenkins et al., 2016). On the other hand, it fosters shallow cognitive processing, information overload, and reduced capacity for critical thinking (Carr, 2020). For university students, these challenges are particularly acute due to academic pressures, social media dependency, and exposure to algorithmically curated information ecosystems (Sun & Wang, 2021).

To address these issues, several scholars have emphasized the role of media literacy training and education. Empirical evidence suggests that structured media literacy interventions can improve students' ability to identify misinformation, evaluate content sources, and manage information anxiety (Martens, 2010; Hobbs & Mihailidis, 2019). Yet,



research focusing specifically on Chinese youth in metropolitan contexts especially Guangzhou remains limited. Hence, this study seeks to fill this gap by investigating the current media literacy levels of Guangzhou university students and developing an effective media literacy training model tailored to their media behaviors and socio-cultural context.

Theoretical Framework

The theoretical framework of this study integrates four interrelated theories Media Literacy Theory, Information Fragmentation Theory, Uses and Gratifications Theory, and Media Exposure Theory to guide the analysis and interpretation of findings. Together, these theories provide a multidimensional understanding of how Guangzhou youth interact with, evaluate, and utilize fragmented information.

Media Literacy Theory

Media Literacy Theory posits that individuals require critical competencies to access, understand, evaluate, and create information effectively in complex media environments (Potter, 2018). It emphasizes both cognitive and affective dimensions of media engagement, encompassing skills such as analysis, evaluation, and message creation. Within this study, the theory provides a foundation for examining how Guangzhou youth develop competencies to interpret fragmented information. Specifically, it aligns with the study's objectives of (1) assessing the current state of media literacy among university students, (2) developing a media literacy training model, and (3) proposing educational guidelines for sustainable improvement.

Information Fragmentation Theory

Information Fragmentation Theory addresses how modern media environments disseminate knowledge in discontinuous and disjointed forms (Bawden & Robinson, 2020). Fragmentation affects how individuals perceive and synthesize information, often leading to context loss, reduced comprehension, and selective exposure. Applying this theory allows the study to explore how Guangzhou youth navigate fragmented information flows and how such fragmentation influences their ability to integrate knowledge and make informed judgments.

Uses and Gratifications Theory

Rooted in communication studies, Uses and Gratifications Theory (Katz, Blumler & Gurevitch, 1974) explains how individuals actively select media channels to satisfy specific psychological and social needs. This theory provides insight into why and how Guangzhou university students engage with particular forms of media—such as short videos, social networks, or online news—and how these preferences fulfill needs for information, entertainment, or social connection. Understanding these motivations is critical for designing media literacy interventions that resonate with youth media habits and cognitive tendencies.



Media Exposure Theory

Media Exposure Theory highlights how the frequency, duration, and selectivity of media engagement shape individuals' cognition, attitudes, and behaviors (Slater, 2007). It underscores the importance of selective exposure the process through which individuals choose content aligned with their pre-existing beliefs or preferences. Within this study, the theory informs analysis of how Guangzhou university students selectively engage with or avoid specific information content and how these patterns influence their perceptions of credibility, trust, and truthfulness in fragmented media environments.

Conceptual Framework

The conceptual framework (see Figure 1) illustrates the interrelationship among key constructs derived from these theories. Information fragmentation serves as the independent variable, influencing media exposure and media use motivations, which in turn affect the development of media literacy competencies among Guangzhou university students. The framework emphasizes how educational interventions can strengthen media literacy, mitigate negative impacts of fragmented information, and enhance critical engagement with media content.

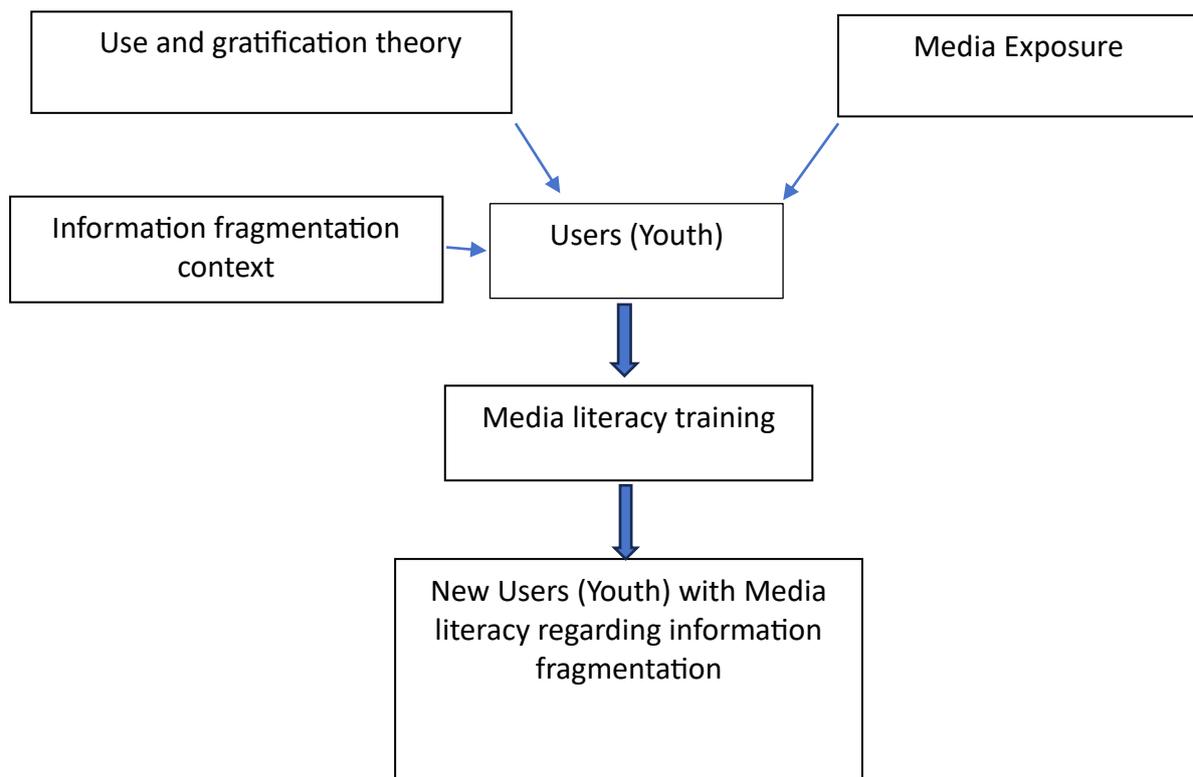


Figure 1 Theoretical Framework

There are theories in this study such as media literacy, information fragmentation, use and gratification theory, and media exposure. Detail as follow:

Table 1 theories in this study

Theory	Characters/Quest	Apply	Research objective
Media literacy	As an individual's core ability to effectively process information in an information environment	To analyze the skills and challenges the Guangzhou youths to identifying, evaluating and utilizing fragmented information Level: access, understand, critique, learning	1. To study the current situation of the media literacy level of Guangzhou youths regarding information fragmentation. 2. To develop the media literacy training model for Guangzhou youths regarding information fragmentation
Information fragmentation	As a key feature of the modern information environment, it affects the way information is received and processed.	Explore how Guangzhou Youths navigate the fragmented information flow, including how they select, interpret and integrate information fragments.	3. To propose the media literacy training guidelines for Guangzhou youths regarding information fragmentation
Usage and gratification	Explain how individuals choose and use media resources according to their own needs.	Study the motivations of Guangzhou Youth in choosing specific media and information, and how these choices meet their specific needs.	
Media Exposure	Helping individuals autonomously select information content that aligns with their preferences and beliefs in an informational environment	To study how university students in Guangzhou selectively engage with and avoid specific information content in an informational environment, and how these selective	

Theory	Characters/Quest	Apply	Research objective
		behaviours influence their cognition, attitudes, and behaviour.	

Objectives

1. To study the current situation of the media literacy level of Guangzhou youths regarding information fragmentation.
2. To develop the media literacy training model for Guangzhou youths regarding information fragmentation
3. To propose the media literacy training guidelines for Guangzhou youths regarding information fragmentation

Methodology

Research Design

This study employed a mixed-methods experimental research design, integrating both quantitative and qualitative approaches to comprehensively examine the media literacy level of Guangzhou youth in the context of information fragmentation. The quantitative component aimed to measure differences in media literacy levels before and after the implementation of a media literacy training intervention, while the qualitative component sought to gain deeper insights into the experiences, perceptions, and contextual factors influencing these outcomes.

The research was conducted over a six-month period in Guangzhou, People's Republic of China. The experimental approach was chosen to determine the effectiveness of a media literacy training model by comparing the performance of an experimental group and a control group.

Research Hypotheses

To address these objectives, the following hypotheses were formulated:

H1: The mean test scores of the control group are significantly lower than those of the experimental group.

H2: The pre-test scores of the experimental group are significantly lower than their post-test scores after participating in the media literacy training program.

Population and Sampling

The target population for this study consisted of approximately 1.6 million youth residing in Guangzhou, representing a diverse demographic of university and college students. From this population, a sample of 400 respondents was selected using stratified random sampling to ensure balanced representation across gender, academic discipline, and institution type.



Participants were drawn from several higher education institutions, including Jinan University, Guangzhou University, Guangdong University of Technology, Guangzhou Institute of Sport, and Guangdong University of Finance and Economics. The sample comprised both undergraduate and junior college students, ensuring a representative mix of academic levels and digital literacy backgrounds.

Key Informants

To complement the quantitative data, 10 key informants were purposefully selected for in-depth interviews. This group included a range of stakeholders with diverse expertise in media education and youth media practices:

Table 2 Profile of Key Informants

No.	Category / Profession	Affiliation / Background	Role in the Study
1	College Media Studies Lecturer	Guangzhou University	Provided expert insights on current media education practices and student engagement strategies.
2	Lecturer in Ideological and Political Education	Jinan University	Offered perspectives on integrating media literacy within civic and ideological education frameworks.
3	Media-Major University Student	Guangdong University of Technology	Represented students with formal media education experience and high digital engagement.
4	Non-Media-Major University Student	Guangdong University of Finance and Economics	Reflected the general student population's media use behaviors and literacy challenges.
5	Parent of University Student	Guangzhou Resident	Shared parental views on youth media exposure and information evaluation habits.
6	Parent of University Student	Guangzhou Resident	Contributed insights on parental awareness and concerns regarding digital media influence.
7	Media Expert	Guangzhou-Based Media Organization	Provided professional understanding of media production, credibility, and audience fragmentation.
8	Media Expert	Guangzhou-Based Media Organization	Shared expertise on digital content strategies and audience interaction trends.
9	Media Literacy Practitioner	Independent Training Institution	Contributed practical approaches for implementing media literacy education programs.

No.	Category / Profession	Affiliation / Background	Role in the Study
10	Media Literacy Practitioner	Guangzhou Educational Development Center	Offered applied perspectives on curriculum design and media literacy training effectiveness.

These informants provided critical insights into pedagogical practices, youth media behavior, and challenges related to fragmented information environments.

Research Instruments

A combination of quantitative and qualitative instruments was used to collect data systematically.

1. Quantitative Instruments Media Literacy Level Test: Designed to measure participants' ability to access, analyze, evaluate, and apply information in fragmented digital contexts. Structured Questionnaire: Developed based on prior validated scales in media literacy research. It consisted of closed-ended items measuring media use patterns, information evaluation skills, and attitudes toward digital content reliability.

2. Qualitative Instruments In-depth Interview Guide: Used to explore key informants' perspectives on youth media literacy challenges and effective training strategies. Document Analysis: Examination of institutional reports, media education policies, and relevant academic literature to triangulate findings. All instruments were pre-tested to ensure reliability, validity, and contextual appropriateness for the Guangzhou youth population.

Research Procedures

The research was implemented in three phases:

1. Pre-Assessment Phase A baseline pre-test was administered to both the control and experimental groups to measure their initial media literacy levels.

2. Intervention Phase The experimental group participated in a structured media literacy training program, designed to enhance skills in accessing, analyzing, and evaluating fragmented information. The control group did not receive the intervention during this phase.

3. Post-Assessment Phase Upon completion of the training, both groups were administered a post-test to measure changes in media literacy performance. The differences between pre-test and post-test scores, as well as between the control and experimental groups, were analyzed to test the research hypotheses.

Parallel to these phases, qualitative interviews with key informants were conducted to provide contextual interpretation of quantitative findings and to support the development of the proposed training model and guidelines.

Data Collection

Data collection was conducted over a six-month period using both online and on-site methods. Questionnaires were distributed to participants through institutional digital



platforms and coordinated by research assistants. A total of 400 valid questionnaires were retrieved and used for analysis.

In-depth interviews were carried out with the 10 key informants, recorded with consent, and subsequently transcribed for thematic analysis. Additional data were gathered from relevant policy documents, media education materials, and institutional reports to enrich the contextual understanding.

Data Analysis

1. Quantitative Analysis Quantitative data were processed using SPSS (Statistical Package for the Social Sciences). Descriptive statistics (mean, standard deviation, frequency) were applied to summarize demographic characteristics and baseline literacy levels. Inferential statistical tests such as independent sample t-tests and paired sample t-tests were used to evaluate differences between the control and experimental groups and to assess changes within the experimental group before and after training. Statistical significance was determined at $p < 0.05$.

2. Qualitative Analysis Qualitative data from interviews and documents were analyzed using thematic analysis, following Braun and Clarke's (2006) approach. Transcripts were coded, categorized, and interpreted to identify recurring themes related to media literacy challenges, pedagogical strategies, and perceptions of information fragmentation. The findings from qualitative data were triangulated with quantitative results to enhance validity and provide a comprehensive interpretation of the research objectives.

Results

Among the 400 questionnaires released in this survey, the focus is on Jinan University, Guangzhou University, Guangdong University of Technology, Guangzhou Institute of Sport, Guangdong University of Finance and Economics and other schools. The students surveyed include undergraduates and junior college students. The following is the content of the analysis by volume

The result of objective 1: To study the current situation of the media literacy level of Guangzhou youth regarding information fragmentation

1) General situation of Guangzhou city

Guangzhou plays a pivotal role in politics, economy, culture, and history, and is one of the most influential cities in south China. As a national central city, higher education in Guangzhou is faced with the development opportunities. It undertakes the mission and responsibility of accelerating the construction of a high-quality higher education system, promoting the modernization of education. Nowadays, all people are living in the digital age, especially college students who are forming their outlook on life and values are facing a complex information environment, and profound changes have taken place in the way of information acquisition, dissemination, and processing. The phenomenon of information fragmentation has changed the way of information interaction in the whole society, and the characteristics of rapid, diverse and fragmented information exchange have become more prominent, which puts forward new requirements for college students' media literacy. In the digital age, the whole society is



flooded with massive information, and the phenomenon of information fragmentation is serious, which changes the way we interact with information, and also puts forward new requirements for personal media literacy. A lack of media literacy can lead to misunderstanding, misdirection and information overload. Especially in big cities like Guangzhou, the fast, diverse and decentralized nature of information exchange is more obvious. In the age of information fragmentation, it is necessary to explore how to cultivate college students' media literacy so as to effectively acquire and identify effective information. Through the research on college students in Guangzhou, the media literacy level of college students in Guangzhou can be deeply analyzed and targeted training strategies can be proposed. Especially in the aspects of education strategy, public opinion, media education policy formulation, media industry development, media content production, culture, and value shaping, etc., to help them better understand, screen and apply information, improve the level of media literacy, and better adapt to the challenges of the information society.

Problem of Information fragmentation in Guangzhou city: College students in Guangzhou are energetic, plastic, and quick to accept new things during this critical period of their growth. New media are exerting a powerful influence and redefining the growth of college students' values. As an important factor, fragmented information imperceptibly and quickly affects their behavior, changes their thinking and affects their value formation. Long-term exposure to fragmented information will lead to the following effects on college students: (1) Information overload and anxiety (2) Information credibility and misinformation (3) Distraction and reduced deep thinking (4) Privacy and data security (5) Difficulty in filtering and evaluating information (6) Lack of critical thinking.

Media literacy level: There are significant group differences in the media literacy level of Guangzhou college students. Students majoring in media have relatively high media literacy. The courses involve media ethics, news regulations and other content, which provides a good foundation, but the overall depth of knowledge is insufficient. On the other hand, the level of media literacy of non-media majors is relatively uneven, and most of them can only cope with the use and discrimination of basic information, lacking systematic learning and in-depth understanding. At the same time, some college students have obvious deficiencies in information discrimination and emotional communication, and are easily affected by fragmented information, leading to anxiety and negative emotions.

2) Demographic information

Table 3 Analysis results of questionnaire frequency and percentage data n = 400

Demographic information	Frequency	Percentage
Gender		
Male	160	40%
female	240	60%
Grade		
Freshman Year	157	39.25%
Sophomore year	125	31.25%
Junior year	73	18.25%
Senior	45	11.25%
Education		



Demographic information	Frequency	Percentage
Junior college	102	25.5%
Undergraduate	297	74.25%
Other	1	0.25%
School		
Jinan University	55	13.75%
Guangzhou University	60	15%
Guangdong University of Finance and Economics	39	9.75%
Guangdong University of Technology	29	7.25%
Guangzhou Institute of Physical Education	34	8.5%
Other schools	183	45.75%
Majors		
Art	39	9.75%
News communication (broadcasting, production, news)	88	22%
Sociology and Humanities	45	11.25%
Education	87	21.75%
Business/Management	48	12%
Finance/Economics	13	3.25%
Science	18	4.5%
Other (please specify....)	62	15.5%

From Table 3 it can be analyzed that 60% of the respondents in this survey are female and 40% are male. The respondents are mainly undergraduate and junior college students, with 74.25% of undergraduates and 25.5% of junior college students. Guangzhou University topped the list with 15 percent, followed by Jinan University with 13.75% and Guangdong University of Finance and Economics with 9.75%. As can be seen from the data of majors, news broadcasting 22%, education major 21.75%; Business/management 12%.

3) Media Exposure

Table 4 Media exposure of college students in Guangzhou

Questions	Frequency	Percentage
Devices used on the Internet		
Smartphones	330	82.5%
Tablet computer	40	10%
Computer	28	7%
Smart TV	0	0%
Other (please specify....)	2	0.5%
Software or platform for surfing the Internet		
Tik Tok/Douyin	314	78.5%



Questions	Frequency	Percentage
Quick Hands	113	28.25%
WeChat	317	79.25%
Video number	118	29.5%
Little Red Book	208	52%
Other ((please specify...))	44	11%
Short video platforms that are used frequently		
TikTok/ Douyin	327	81.75%
Quick Hands	99	24.75%
WeChat	171	42.75%
Video number	97	24.25%
Little Red Book	218	54.5%
Others (please specify...)	31	7.75%

From table 4 Samplings using smart phones 82.5%; tablet computer 10%; desktop computers 7%. WeChat is the most used online as 79.25%; Douyin 78.5 %; Xiaohongshu 52 %. The platform that watched the shortest videos was Douyin as 81.75%; Xiaohongshu 54.5%; WeChat 42.75%. As can be seen from the above data, smart phones are the preferred devices for college students to obtain information and carry out daily activities, WeChat and Douyin are the most popular Internet platforms for college students, and Douyin is the first-choice platform for college students to watch short videos. These platforms have a direct impact on college students' entertainment, social habits and information receiving channels.

4) Usage and gratification

Table 5 Usage of Internet time among college students in Guangzhou

Questions	Frequency	Percentage
Length of time spent online each day		
Very little (less than 1 hour per day)	6	1.5%
Little (1-3 hours per day)	15	3.75%
Moderate (4-6 hours per day)	162	40.5%
Batch (6-9 hours per day)	135	33.75%
Very much (10 + hours per day)	82	20.5%
How many hours per day you watch short videos		
Very little (less than 1 hour per day)	36	9%
Less (1-3 hours per day)	114	28.5%
Moderate (4-6 hours per day)	155	38.75%
Batch (6-9 hours per day)	49	12.25%
Very much (10 + hours per day)	46	11.5%
The amount of time you spend online each day		
Before you wake up	133	33.25%
Taking transportation	224	56%



Questions	Frequency	Percentage
Lunch break	144	36%
Before bed	290	72.5%
Eating	298	74.5%

From Table 5 As can be seen from Table 4.3, the proportion of college students in Guangzhou who surf the Internet for 4-6 hours every day is the highest, accounting for 40.5%; The second place is 6-9 hours online, accounting for 33.75%; The third is more than 10 hours online, accounting for 20.5%. According to the data of watching short-time videos online, the top one is watching short videos 4-6 hours a day, accounting for 38.75%; Ranked second is watching short video 1-3 hours a day, accounting for 28.5%; And the second most watched short videos for 6-9 hours a day, accounting for 12.25%. In terms of online time choice, the first time is eating meals, accounting for 74.5%; The second is the time before going to bed, accounting for 72.5%; In third place is the time spent on transportation, accounting for 56 percent. This indicates that college students in Guangzhou have a high degree of dependence on the Internet, short video has become the main Internet activity of college students, the peak time of college students' Internet is obviously fragmented, and the high frequency of online duration and short video usage shows that students have a high degree of dependence on the Internet and short video content, but lack of reasonable time management.

Table 5 Gratification of Internet purposes of college students in Guangzhou area

Questions	Frequency	Percentage
The main purpose of surfing the Internet		
Information (to browse news and information)	232	58%
Education (Online learning: Take online courses, find study materials)	251	62.75%
Entertainment (playing games, watching movies, etc.)	325	81.25%
Socializing and shopping (PR and advertising)	253	63.25%
Reasons for seeking satisfaction online		
Diversion (escape, seeking emotional release)	77	19.25%
Personal relationships (companionship and social utility)	94	23.5%
Personal identity (self-expression, reality exploration, value realization)	122	30.5%
Information (access to news and information)	102	25.5%
Other (please specify.....)	5	1.25%
Reasons for frequent use of some web platforms		
It provides insight	55	13.75%
It helps create imagination	101	25.25%
It communicates quickly and can generate interaction.	155	38.75%
It stimulates perception of sight, size, color, and movement.	82	20.5%
Others (please specify.....)	7	1.75%



From Table 5 The main purpose of Guangzhou college students surfing the Internet is entertainment, accounting for 81.25%; social networking and shopping online 63.25%; online learning as 62.75 %. Personal identity (self-expression, reality exploration and value realization) ranked first in achieving self-satisfaction online as 30.5%. Information (access to news and information) as 25.5 %, and personal relationships (companionship and social utility) as 23.5 %. In Guangzhou, college students choose to use some network platforms frequently, the first reason is that it can communicate quickly and generate interaction, as 38.75%; helping to create imagination 25.25%; stimulating perception of sight, size, colour and movement as 20.5 %. Entertainment drive is the main purpose of Guangzhou college students to surf the Internet, and self-realization and information acquisition are the core needs of college students to surf the Internet. The reasons why students choose platforms mainly focus on interactivity, creativity, and perceptual stimulation, indicating that they tend to pursue instant gratification and sensory enjoyment when using the Internet, and may ignore the depth and quality of content.

The result of objective 2: The result of developing the media literacy training model for Guangzhou youths regarding information fragmentation

There are 3 parts such as pre-test of media literacy level, training program of media literacy under graduation education level, and post-test of media literacy level.

Part 1 Pre-test of media Literacy Level it is experimental research design which setting Criteria of Sample screening from 400 sampling (18-24 years old and College students in Guangzhou) are Mainly use smart phones to surf the Internet, frequently use short video platforms (such as Douyin, Kuaishou, etc.) and watch short videos for more than four hours a day. Willing to participate in the test and media literacy training of this study and select 60 students from randomized table. Grouping and preliminary test by randomly dividing the 60 students into two groups such as the control group and the experimental group, with 30 students in each group. Before the training, the students in both groups participated in a preliminary media literacy test, using the same set of questionnaires, which covered the key indicators of media literacy such as information screening ability, critical thinking ability and information processing ability.

Table 6 The pre-test scores are summarized as follows

Groups	Sample size	Average	Standard Deviation	T-value	P value
Control group (1.0)	30	68.32	8.74	-0.769	0.445
Experimental group (2.0)	30	70.32	11.26		

Note: p<0.05 indicates significant difference

Hypothesis 1 test: The result of hypothesis 1 test is p = 0.445 or > 0.05 indicates that there is no significant difference between media literacy marks of control group and experimental group. Even though, the average score of experiment group more than control group (70.32 and 68.32).



Part 2 training program of media literacy under graduation education level

Target: Guangzhou college students

Course Structure: The course consists of six sessions, each lasting 3 hours, which will focus on the following six topics: exposure and use of social media; Engaging with media safely and productively; Media language and images; Fake news; Information Technology Law (IT Law); And trusting online media.

Section 1 Exposure and use of social media

Title: Exposure and Use of social media issues

Concept: Once we widely used the media is radio, television, with the continuous development of communication technology, now we usually use the media such as WeChat, Douyin, Weibo, Kuaishou, etc., are widely accessible to the public media. When contacting these media, there may be problems with the accuracy and reliability of information. Media users need to think and analyze the information carefully to make the right decisions and understand the information, causes and prevention measures of possible problems.

Learning objectives

1. Discover the problems in the use of traditional media (such as radio, TV, newspapers) and emerging media (such as Douyin, Kuaishou).
2. Analyze the reasons for the problems in media exposure and use.
3. Propose solutions to problems and prevent problems in media exposure and use.

Study content:

- 1) Problems found when using different media (traditional and new media).
- 2) Reasons why there are problems when the media publishes the news.
- 3) Ways to solve and prevent problems in the use of media.

Teaching content

1. Questions before class

(1) What media are you mainly using? (2) Which media are you satisfied with? Which ones are not? Why? (3) Let's play a short marketing video and ask everyone to give their opinions. (Play Douyin video: Flying orange education marketing: 3 people 40 accounts cleaning aunt can)

2. Second, teaching planning

1) Play video: The lecturer played a short video of Douyin, about some intense images of the media release, the page view is high, but it is not verified by the official information content. (We media video content: Urban management personnel in Anshan, Liaoning Province illegally occupied motor vehicle lanes to park)

2) Discuss the impact of the video: The lecturer asked the students to suggest the impact of the above video on the viewers, and what kind of reflection it caused.

3) Comparative analysis: The lecturer finds out the news report video released by the official media which is consistent with the above short video content, and compares the playing effect and the intuitive feeling after watching the two videos (Official media content: Urban management personnel illegally occupied parking lanes in Anshan, Liaoning Province, China Youth Network official media).

4) Remarks: China Youth Net, the full name of China Youth Computer Information Service network, one of the eight key news and propaganda websites of the central government, also made relevant reports on the same incident.

5) Group discussion: The lecturer guided the students to think about the



problems found in using different media, and divided the students into groups. Each group wrote a plan book to prevent problems in using social media.

6) Group presentation: Each group will find a representative to present and explain the plan paper that their group has refined.

Teacher's summary: The lecturer explains the reasons for the problems in using different media, how to solve the problems and ways to prevent the wrong use of media. Summarize the causes of media use problems, how to solve them, and how to prevent media use problems.

3. Instructional Design

1) Guidance and interaction: lecturers ask questions to lead students to think, and play videos to provoke discussion.

2) Group discussion and presentation: Students discuss and display their plans in groups to strengthen practical operation and communication.

3) Case analysis: Guide students to think and understand deeply by comparing and analyzing the information released by the official media and the self-media.

4. Teaching Sources

Article "Since the media has no bottom line when to stop traffic", author: Zhao Li, Li Jifan; Source: Legal Daily, February 2024.

The main content

1. Analysis of the phenomenon of rubbing traffic

1) We media accounts attract traffic, increase the number of fans and obtain economic benefits by fabricating false information and impersonating parties.

2) Through case analysis, such as the incident of "Qin Lang lost his homework" and the incident of "female teacher being reported for cheating", the harm of the spread of false information is revealed.

Existing laws and regulations should address: The cybersecurity law and the regulations on the administration of internet live broadcasting services are the legal basis for cracking down on false information and we-media violations. Platforms can take measures such as banning, blocking accounts and cleaning up fans of we-media violations, while it is necessary to retroactively and severely punish bad behaviors. How to guide the public to report false information: Encourage netizens to participate in the reporting mechanism, discover and stop the spread of bad information in a timely manner, and maintain network security. Platforms should set up special reporting portals and provide extensive evidence clues to form a healthy and orderly online environment.

Conclusion: The article reveals the seriousness of the current we-media traffic piggyback phenomenon, and points out the importance of cracking down on illegal activities through laws and platform supervision. Educating the public on how to identify false information and actively report illegal activities is the key to purifying the online ecosystem.

2. Teaching summary and Suggestions

In the process of chasing traffic, we media pay more and more attention to income, ignoring the important issue of guidance. Some we media even give priority to income, and are more and more inclined to steal heat and earn traffic in order to increase income. As a result of this practice, media content gradually loses its original authenticity, impartiality and education, and becomes more commercial. The rapid development and popularization of network media have accelerated the speed of information dissemination unprecedentedly, but it has also brought about the problem of excessive information and the spread of false



information. The algorithms of technology platforms tend to push content that caters to users' preferences, leading to the intensification of information cocoon and echo chamber effects, affecting users' ability to think and judge independently. The negative impact of online media is not only a problem of the technology itself, but also a deeper problem of social structure and cultural environment. Society's demand for instant information and pursuit of sensory stimulation have made media content tend to be shallow and entertaining, ignoring the importance of deep thinking and rational discussion. The problem of digital divide among all social classes has exacerbated inequality in access to and use of information, further deepening social inequality and division. Addressing the negative effects of online media requires the joint efforts of both technical and social levels. At the technical level, platforms need to improve their algorithms and enhance the authenticity and diversity of information. At the social level, the media literacy of the public needs to be improved to enhance their ability to identify information and critical thinking.

3. Video links A news video on the rumor "Three children died in a car accident in Shanghai" from CCTV News' "Morning News" - the video reported the spread of online rumors and the punishment for those who published them.

Table 7 Measuring and evaluating learning outcomes

Evaluation Checklist	Specify the name of the item for problem prevention or repair
The project to prevent or fix the problem about social media exposure and use (out of 10)	Students identify problems in media exposure and use: 2 points
	Students can analyze the causes of problems. 2 points
	Students can suggest ways to solve and prevent problems: 2 points
	Students can demonstrate and explain the content and logic of the plan book: 2 points
	Student's active participation in discussion and presentation: 2 points

Through the study of this course, students will be able to better understand and apply media literacy knowledge to enhance their ability to protect themselves and use media effectively in the age of digital media.

Section 2: Accessing Media safely and beneficially Title: Safety and Health in Media Use

Concept: In the era of digital media, mobile phone is considered to be an important device in our life that can easily connect to the Internet, mobile phone can be used for business activities, finance, study, travel, leisure, buying and selling products, chatting, quickly understand the news through the network media, easy access, fast learning. Therefore, in order to access various media, learners need to prepare the skills of accessing information sources and know how to select, analyze and evaluate the accuracy, reliability and value of the content in order to access the media safely and benefit from it. It is essential to access and use media safely. This course will explore the basic concepts of online security, how to protect personal privacy and data security, and prevent online fraud and cyberbullying. The course will also



discuss the impact of prolonged media use on physical and mental health, and provide strategies for managing media time wisely.

Learning objectives:

- 1) Understand the basic concepts and importance of cybersecurity.
- 2) Master methods to protect personal privacy and data security.
- 3) Learn ways to protect against online fraud and cyberbullying.
- 4) Understand the impact of prolonged media use on physical and mental health, and learn to time your media use wisely.

What to study:

- 1) Basic concepts and importance of network security.
- 2) Methods to protect personal privacy and data security.
- 3) Tips for preventing online fraud and cyberbullying.
- 4) Health problems and solutions of media use.

Teaching content:

1. Pre-class discussion:
 - 1) Have you ever experienced online fraud or cyberbullying? If so, how did you deal with it?
 - 2) How do you feel after using mobile phone and tablet computer to surf the Internet for a long time?

Teaching plan:

- 1) Network security concept: The teacher explained the basic concept and importance of network security.
- 2) Privacy and Data security: Students share ways to protect personal privacy and data security.
- 3) Preventing online fraud and cyberbullying: In groups, discuss how to prevent online fraud and cyberbullying and propose solutions.
- 4) Healthy use of media: Teachers guide students to develop reasonable schedules for media use and discuss strategies for maintaining physical and mental health.

2. Teaching Design: The combination of teacher teaching and student discussion, Case sharing and solution making, Practical operation and strategy discussion.

3. Teaching materials Source: Article: Study on the Impact of Social Media Users' Privacy Risk Perception on Privacy Protection Behavior, author: Shi Yue, Source: Master's Thesis of Zhejiang University of Media and Communication, May 2024.

The main content: 1) Privacy risk perception and privacy protection behavior 2) the moderating effect of privacy literacy 3) the effect of social media use intention 4) Specific measures of privacy protection behavior includes regularly checking and updating privacy Settings, limiting the scope of information disclosure, using end-to-end encryption tools, and reasonable choice of social media platforms.

Conclusion: Shi Yue's research shows that social media users' privacy risk perception has a significant impact on their privacy protection behavior. Improving users' privacy literacy is the key to improving their privacy protection behavior. In addition, enhancing understanding of the privacy policies of social media platforms is also an important part. Through the combination of privacy education and technical tools, the level of privacy protection of users can be effectively improved and the risk of information disclosure can be reduced. Teaching summary and Suggestions: (1) Improve readers' understanding and protection ability of network security cybersecurity refers to protecting network systems and their data from unauthorized access,



attack, destruction, or tampering. Common cyber threats are viruses and malware that can disrupt system functions and steal or delete data; And phishing attacks, which trick users into providing sensitive information by posing as legitimate entities. A. Basic protection: use strong passwords B. handle public Wi-Fi with caution C. manage social media privacy Settings D. user education and awareness raising. (2) Guard against Internet fraud and Internet violence There are various types of online fraud, including telecom fraud, phishing, fake websites, fake investments and many other forms. There are various forms of cyberbullying: cyberbullying includes cyberbullying, defamation, slander, privacy disclosure, etc. A. Preventive measures: laws and regulations: strengthen the formulation and enforcement of relevant laws and regulations, and severely punish online fraud and online violence. B. Technical measures: improve network security technology, develop and apply anti-fraud and anti-cyber violence software and tools. C. Education and training: improve the public's awareness and prevention ability of network security, and make people understand and master the methods of preventing network fraud and network violence through education and training. D. Social support: establish and improve a social support system, and provide psychological counselling and legal aid to victims. Video link: CCTV News CCTV1 4.15 network information security video, Don't let privacy leakage become an accomplice, Fight against telecom network fraud alert to five types of high incidence forms - CCTV

Table 8 Measuring and evaluating learning outcomes

Evaluation checklist	Specify the name of the item for problem prevention or repair
Safety and Health in media use (out of 10)	Students' understanding of the basic concepts of cybersecurity: 2 points
	Mastery of methods to protect personal privacy and data security: 2
	Skills for preventing online fraud and cyberbullying: 2
	Ability to manage media use wisely: 2
	Strategies for maintaining physical and mental health: 2

Through the study of this course, students will be able to understand and master the skills to use media safely and enhance their ability to protect themselves and use media healthily in the age of digital media

Section 3 Media language and images Title: Understanding and analysis of media language and image

Concept:

Language and images are the main ways for media to disseminate information. Understanding and analyzing the use of language media and images is essential to promoting media literacy. This course will explore how to interpret and analyze language and images in media, and how to discern misleading information that may be present in them.

Learning objectives:

- 1) Learn to interpret and analyze language and images in media.
- 2) Learn ways to discern misleading information.
- 3) Improve your critical thinking skills with words and images.



What to study: A. basic concepts and characteristics of language media. B. the role and influence of images in media communication. C. methods of interpreting and analyzing language and images. D. skills for discerning misleading information.

Teaching content:

1) Pre-class activities: A. Students share an advertisement they have seen recently and describe the language and images. B. The lecturer shows a news video and the students discuss the use of language and images.

2) Lesson planning: concept explanation, group analysis (students work in groups to analyze language and images in different types of media content e.g. advertisements, news reports, social media posts), present discussion (each group presents the results of the analysis and discusses any misleading information that may be present in it), lecturer summary

3) Teaching Design: the combination of teacher teaching and student analysis, group discussion and case study, practical operation and result presentation.

4) Teaching materials Source: Article: "The Characteristics and Innovative Strategies of News Language in the Age of Integrating Media", author: Gu Weilin, Source: Western Radio and Television, Time: May 2023.

Main content:

1) The characteristics of news language under the background of media era such as A. Networking: News language in the era of integrating media pays more attention to the audience's experience, and extensively uses network buzzwords and new media language to enhance the readability and interest of content. B. Personalization: The news language is gradually personalized to reflect the characteristics of The Times, to convey the unique views of the media and groups, and to increase the audience's sense of participation. C. Civilianization: News reports use civilianization language to narrow the distance between the media and the audience, so that the content is closer to life and easy to arouse resonance.

2) The importance of innovative news language such as A. Enhance the appeal of reports: Innovative language styles can enhance the attractiveness and emotional resonance of news reports, and enhance the audience's reading experience. B. Improve the aesthetic of news: while satisfying the information function, the media should pay attention to the aesthetic experience of news, enhance the artistry of the content, and make the audience more willing to pay attention to the report.

3) Innovative strategies of news language in the age of integrating media such as A. With the help of mass language (Through the introduction of daily life language, enhance the affinity of reports and narrow the distance with the audience) B. Add emotional elements (explore the emotional factors in the report, enhance the warmth and interaction of the language, so that the audience can feel the human touch) C. Use literary language (use vivid literary language in the report to improve the narrative effect and make the report more attractive). D. Highlight personalized language (develop unique language styles, form brand characteristics of the media, and attract more attention)

Conclusion: Under the background of integrating media, innovating news language is an important strategy to adapt to the development of The Times and enhance the effect of news communication. Article "Characteristics and Editorial Principles of News Information Images in the New Media Environment", author: Xu Chunxia. (source: Research on Communication Power, Time: July 2017).

1. Main content: This article discusses the communication characteristics and editing principles of news images under the background of new media, focusing on the analysis of the



impact of new media on news images and the key requirements in image editing such as A. the immediacy and rapid dissemination of news images B. diversification and interactivity of news images C. the visual impact of news images D. the authenticity and standardization of news images E. the content accuracy of news images F. the spread and expansibility of news images G. the basic principles of news image editing H. the interactivity of images on new media platforms

2. The Conclusion: Features and Editorial Principles of News Information Images under New Media Environment emphasizes the importance of news images in the new media era, which should not only reflect the visual beauty of images, but also meet the authenticity and normative requirements of news. As an important part of news communication, news image occupies an important position in news communication due to its diversified forms and rapid transmission characteristics. At the same time, image editors need to strictly follow professional norms to ensure the accuracy and legitimacy of news images. By learning and mastering these principles, students can better understand the application of news images in new media, thereby improving their media literacy and image processing ability. Video: A Easy weight loss, no diet, no exercise (video 1 from TikTok) B. lose 10 pounds in a week, no diet, no hard exercise (video 2 from Douyin) C. don't believe what you eat can lose weight science video (video 3 from Douyin) D. freckle removal ring set reveals freckle removal scam (video 4 from Douyin) E. is permanent freckle removal believable (two doctors' popular science (Video 5 from Douyin)

Table 9 Measure and evaluate learning outcomes

Assessment Checklist	Specify the name of the item for problem prevention or repair
Understanding and analysis of media language and images (out of 10)	Students' understanding of basic concepts of language media and images: 2 points
	Ability to interpret and analyze language and images: 2
	Skills in identifying misleading information: 2
	Ability to analyze different types of media content: 2
	Critical thinking skills: 2

Through the study of this course, students will be able to understand and analyze language and images in media, improve their ability to discern misleading information, and enhance critical thinking.

Section 4: Fake News Title: Identification and response of fake news

Concept:

Fake news is increasingly prevalent in the age of digital media, and identifying false news is an essential skill for every media user. This course will explore the characteristics of fake news, how it spreads and its harm, and provide ways to identify and respond to fake news.

Learning objectives:

- 1) Understand the characteristics of fake news and how it spreads.
- 2) Learn ways to identify fake news.
- 3) Get the skills to deal with fake news.



What to study: A. The definition and characteristics of fake news. B. Ways of spreading false news. C. The harm of fake news. D. Ways to spot fake news. E. Tips for dealing with fake news.

What to teach:

1) Discussion before class such as Have you ever been misled by false news? Share experiences, what do you think are the characteristics of fake news?

2) Teaching plan: (1) Definition and characteristics: The lecturer explained the definition and characteristics of false news (2) Transmission channels and hazards (students will discuss and summarize the transmission channels and hazards of false news in groups) (3) Identification method: The teacher demonstrates the method of identifying false news (4) Group exercises: Students work in groups to identify fake news and suggest strategies to deal with it (5) Show and comment: Each group shows ways to identify and respond to fake news, with teacher comments.

3) Teaching Design: the combination of teacher teaching and student discussion, group discussion and practical operation, case study and result presentation.

4) Teaching Sources: (1) Article: A Study on the Evolution of Social Media Users and Their Behavior Guidance and Control under the Influence of Government rumour-refuting Information, author: Li Songtao, Source: Jilin University Doctoral thesis, Time: May 2024. Main contents are A. the transmission mechanism of false news (User cognitive evolution) B. the role of opinion leaders in the dissemination of fake news: Role Evolution: C. User's acceptance and behavior guidance to false news (to accept false news refuting information rationally). Conclusion: This paper provides profound insights on the mechanism and governance of fake news from multiple perspectives (such as cognition, role, and information dissemination), which can provide rich teaching materials for media literacy education for teenagers. By means of case analysis and behavior guidance, it can help teenagers improve their discernment ability of false news and enhance their media literacy (2) Teaching summary and Suggestions: Social media platforms are the main channels for the spread of false news. Users make false information spread rapidly by sharing, liking and commenting. Instant messaging tools: Through instant messaging tools such as WeChat and WhatsApp, fake news can spread to a large number of users in a short period of time, making it difficult to track and manage. News websites and blogs: Some irresponsible news websites and blogs will publish and spread unverified fake news in order to attract traffic. Email: By sending mass emails, fake news can reach a large number of users' inboxes directly, increasing the credibility and breadth of the message. The harm of false news: Misleading the public: False news can mislead the public, leading to the spread of wrong information and affecting the public's judgment and decision-making. Social trust crisis: Frequent false news will reduce the public's trust in media and information sources and undermine the foundation of social trust. Trigger panic and chaos: Especially in times of emergencies and crises, fake news may trigger panic and chaos among the public and cause social instability. Economic losses: False news may also have an impact on economic activities, such as stock market fluctuations, corporate reputation damage, etc., leading to economic losses. Preventive measures: Education and training: improve the media literacy of the public and educate them on the ability to identify false news. Technical means: Use artificial intelligence and big data technology to monitor and identify fake news, and strengthen the management and control of online information. Laws and regulations: Formulate and improve relevant laws and regulations to strengthen supervision and punishment of fake news. Media responsibility: News media should enhance their sense of social responsibility and strictly check



the authenticity and accuracy of news content. (3) Video: How AI concocts fake news? (video 1 from Central video), using AI to spread rumors "There is video but there may not be truth" (video 2 from Central Video), The use of AI technology to produce fake news is punished by law (video 3 from Central Video), Fake news "Qin Lang lost his job in Paris" (Video 4 from Douyin)

Table 10 Measuring and Evaluating Learning outcomes

Assessment Checklist	Specify the name of the item for problem prevention or repair
Identifying and responding to fake news (out of 10)	Students' understanding of the definition and characteristics of fake news: 2
	Ability to summarize the ways in which fake news spreads and the harm it does: 2
	Method of identifying fake news: 2
	Tips for dealing with fake news: 2
	Ability to analyze cases of fake news: 2

Through the study of this course, students will be able to understand the definition and characteristics of false news, master ways to identify and respond to false news, and improve their ability to analyze cases of false news.

Section 5: Information Technology Law (IT Law) Title: Information Technology Law and Media Use

Concept: Information Technology Law (IT Law) plays an important role in ensuring legal and ethical norms in the digital media environment. This course will introduce the basic concepts and applications of information technology law and explore its importance in the use of media. Learning objectives:

- 1) Understand the basic concepts and applications of information technology law.
- 2) Grasp the importance of information technology law in the use of media.
- 3) Learn practical cases and application methods of information technology law.

Study content: 1) basic concepts of information technology law 2) the application of information technology law to the use of media. 3) case study of typical information technology law 4) how to follow information technology law in media use.

What to teach:

1. Pre-class activities: 1) students share their knowledge and questions about information technology law 2) teachers demonstrate basic concepts and applications of information technology law videos.

2. Teaching Plan: 1) Concept and application: the lecturer explains the basic concept and application of information technology law 2) Importance Discussion: Students discuss in groups the importance of information technology law in the use of media. 3) Case studies: Teachers provide typical cases, and students analyze and discuss the legal and ethical issues in the cases 4) Summary and presentation: Students summarize and demonstrate how to follow the method of information technology law in media use.

3. Instructional Design: the combination of teacher teaching and student discussion, group discussion and case study, practical operation and result presentation.

4. Teaching materials Source: 1) Article: The Path of Legal Regulation of Network Bad Information in China, author: Wang Zhilong, source: Changjiang Forum. The main contents:



improving the classification system of network information content, clarify the governance responsibilities of online platforms, legal punishment for the spread of bad information online, clarify the regulatory responsibilities of government departments, strengthen legal education and network security awareness training for teenagers, establish a sound social reporting mechanism. To sum up, the conclusion of the article mainly focuses on improving the legal system, clarifying platform responsibilities, strengthening government supervision, raising public awareness of the rule of law, and improving the reporting mechanism to effectively regulate bad information on the Internet, especially to protect minors from bad content. 2) Teaching summary and Suggestions: The "Network Security Law" is to ensure the security of cyberspace through legislation to prevent cybercrimes and cyber-attacks. The law needs to keep pace with The Times and adapt to the rapid development of information technology, such as legal challenges brought by new technologies such as artificial intelligence and blockchain. The formulation and implementation of laws require the joint participation of the government, enterprises and the public to form a sound legal ecological environment. case 1: data leak incident, case 2: spreading false news, case 3: copyright infringement: Laws and regulations have played an important role in regulating media behavior and protecting public rights and interests. Specific case studies further reveal the importance and effectiveness of laws in responding to the challenges and problems brought about by information technology. 3) Video: Illegal cases of network data leakage in Shenzhen and other places (Video 1 from TikTok Shenzhen Network police), What's illegal on the Internet (Video 2 from Douyin Xinyu Police), The Ministry of Public Security announced ten cases of "Internet rumor fabrication" (Video 3 from CCTV Rule of Law Online)

Table 11 Measuring and evaluating learning outcomes

Assessment Checklist	Specify the name of the item for problem prevention or repair
Information Technology Law and media use (out of 10)	Student's understanding of basic legal concepts of information technology: 2
	Ability to apply information technology law to the use of media: 2
	Case study ability: 2
	Method of following information technology law: 2 points
	Understanding of legal and ethical issues: 2

Through the study of this course, students will be able to understand and master the basic concepts of information technology law and its importance in the use of media, and improve their understanding and application of legal and ethical issues.

Section 6: Trust online Media Title: Building and Maintaining Trust in Online Media

Concept: In the digital age of information deluge, it is very important to establish and maintain trust in online media. This course will explore how to assess the trustworthiness of online media, develop critical thinking, and improve information discrimination.

Learning objectives: 1) Understand the methods of credibility assessment in online media. 2) Learn to develop critical thinking. 3) Improve your ability to discern information. Study content: 1) Methods of credibility assessment in online media 2) The cultivation of



critical thinking 3) The skills of information discrimination 4) Methods for building and maintaining trust in online media.

Teaching content:

1. Pre-class activities: 1) Students share whether they trust a certain online media and why, the lecturer shows a video about trust in online media.

2. Teaching Plan: credibility assessment (the lecturer explains the method of credibility assessment of network media), group discussion (students discuss in groups and summarize the criteria for assessing the credibility of online media), critical thinking (lecturers explain ways to develop critical thinking, information discrimination (students practice information discrimination skills in groups and present the results). Summary: lecturers summarize how to build and maintain trust in online media.

3. Teaching Design: the combination of teacher teaching and student discussion, group discussion and case study, practical operation and result presentation.

4. Teaching materials Source: 1) Article: The Influencing Mechanism of the Formation of Social Trust among Netizens in the Age of social media, author: Li Yanli, Source: PR World, April 2022. The main contents of the study are definition and current situation of social trust, media use and social trust, the correlation between social satisfaction and social trust, and the influence mechanism of social media. Conclusive findings: pluralistic media use does not weaken social trust such as social satisfaction is the key factor to enhance social trust, social impact of information dissemination and governance suggestions. To sum up, the study provides a theoretical basis for how to enhance social trust in the age of social media, emphasizes the importance of social satisfaction, and proposes effective strategies to enhance public trust through media governance and public services. 2) Video: How hard it is to draw the right conclusions in the age of information explosion (video 1 from the Internet Security Bureau of the Ministry of Public Security of Douyin), It's hard to tell whether you're a fool or a rumor (video 2 from Douyin Capital Online Police), and how to spot 'fake news' (Video 3 from Douyin Zhihu).

Table 12 Measuring and Evaluating Learning Outcomes

Assessment Checklist	Specify the name of the item for problem prevention or repair
Establish and maintain trust in online media (out of 10)	Students' understanding of online media trustworthiness assessment methods: 2
	The ability to develop critical thinking: 2
	Information discrimination skills: 2
	Ways to build and maintain trust in online media: 2
	Trust in online media: 2

Through the study of this course, students will be able to understand and master methods for assessing the credibility of online media, develop critical thinking, improve information discrimination, and build and maintain trust in online media. Part 3 Post-test of media literacy level the students in the control group did not receive media literacy training and only improved through self-study; The experimental group received six media literacy training courses, including information screening skills, critical thinking training and network information security. After the training, both groups of students took the post-test again.



Table 13 The scores of the late test between control group and experimental group

Groups	Sample size	Mean value	Standard Deviation	T-value	P- value
Control group (1.0)	30	70.18	8.71	-8.374	0.000**
Experimental Group (2.0)	30	86.83	6.54		

Note: $p < 0.05$ indicates significant difference Comparative analysis of pre - and post-test) *
 $p < 0.05$ **

Following the implementation of the media literacy training program, the post-test results were analyzed to compare the performance of the control and experimental groups. As shown in Table 13, the control group ($n = 30$), which did not receive any formal media literacy training and relied solely on self-study, obtained a mean score of 70.18 ($SD = 8.71$). In contrast, the experimental group ($n = 30$), which participated in six structured media literacy training sessions—including modules on information screening skills, critical thinking development, and online information security—achieved a significantly higher mean score of 86.83 ($SD = 6.54$). The independent samples t-test revealed a statistically significant difference between the two groups ($t = -8.374$, $p < 0.001$), indicating that the training intervention had a substantial positive effect on students' media literacy performance. These findings support Hypothesis 1, confirming that students who received targeted media literacy education demonstrated greater competency in processing fragmented information compared to those who did not receive such training.

Table 14 T-test analysis results

T-test analysis results									
Analysis item	item	Sample size	Average	S.D.	Difference in mean	Difference 95% CI	t	df	p
Preliminary test score	1.0	30	68.32	8.74	-2.00	-7.207 to 3.207	-0.769	58.000	0.445
	2.0	30	70.32	11.26					
	Total	60	69.32	10.04					
Late test scores	1.0	30	70.18	8.71	-16.65	-20.630 to -12.670	-8.374	58.000	0.000**
	2.0	30	86.83	6.54					
	Total	60	78.51	11.35					

From table 14 the comparison of test data between the control group and the experimental group, it can be found that there was no significant change in the scores of the students in the control group in the early and late tests (average score increased from 68.32 to 70.18, $p > 0.05$), indicating that it was difficult to significantly improve the level of media literacy by self-study alone. The scores of the experimental group in the early test and the later test



changed significantly (average score increased from 70.32 to 86.83, $p < 0.05$), indicating that systematic media literacy training can effectively improve the level of students' media literacy.

Hypothesis test 2: The result of hypothesis 2 test is $p > 0.000$ or < 0.05 indicated accept H2 or there is significant difference between marks of pretest and post-test media literacy level marks of experimental group. Moreover, the post-test mark or late test scores more than pretest or preliminary test score by average score 78.51 and 69.32. Conclusions and Suggestions:

Table 15 T-test analysis

T-test analysis results				
	Group (mean \pm standard deviation)		t	p
	1.0 (n = 30)	2.0 (n = 30)		
Pre-test score	68.32 \pm 8.74	70.32 \pm 11.26	-0.769	0.445
Late test scores	70.18 \pm 8.71	86.83 \pm 6.54	-8.374	0.000 * *

* $p < 0.05$ *

(1) Preliminary test analysis: The results of T-test showed that there was no significant difference between the experimental group and the control group in the preliminary test scores ($t = -0.769$, $p = 0.445$). This indicates that the media literacy level of students in the two groups was at a similar level at the beginning of the experiment, and the data were comparable. (2) Post-test analysis: The T-test results showed that there was a significant difference between the experimental group and the control group in the post-test scores ($t = -8.374$, $p = 0.000$). Specifically, the average score of the experimental group (86.83) was significantly higher than that of the control group (70.18). (3) Summary: Through analysis, it is found that media literacy training can significantly improve students' ability of information screening, analysis and application. This indicates that systematic media literacy courses have important practical value in dealing with the background of information fragmentation.

The result of objective 3: Result of proposing the media literacy training guidelines for Guangzhou youth regarding information fragmentation

The result of proposing the media literacy training guidelines for Guangzhou youth regarding information fragmentation are (1) curriculum design of media literacy (2) comprehensive in-depth interview analysis: suggestion for improving media literacy, and (3) Long-term tracking investigation methodology. Detail as follow:

Curriculum design of media literacy:

To address the issue of information fragmentation in the digital age, researcher conducted in-depth interviews with 10 key individuals based on literature review about media literacy training project: under graduation level in Thailand and applied with suitable context in China, specially to apply among university students in Guangzhou. Drawing on the suggestions they provided, Researcher also incorporated relevant media literacy theories from recent years.

Course Background and objectives:

Media literacy is seen as a vital competency in the digital age. The fragmented dissemination of information not only changes the path of information acquisition, but also has a profound impact on college students' thinking patterns and behavior habits. In order to address this challenge, this course is designed for Guangzhou college students as the target



group, aiming to address the challenges to college students' information processing ability and media literacy in the age of information fragmentation. The course is divided into six sessions covering social media use, safety and health, media language and images, false news identification, information technology law, and trust in online media. Combining multimedia resources, case studies, practical exercises and teaching assessments, the course aims to help students comprehensively improve their abilities in information screening, critical thinking and media application. The course combines the ability to cultivate critical Thinking, Privacy Awareness, Information Discernment and Legal Literacy. It is committed to improving students' comprehensive competitiveness in the information society.

Curriculum structure and content overview:

Researcher created Media literacy Training Course. It was spent time 6 days during 6 weeks which 3 hours in each day. Therefore, researcher spent totally 18 hours with 6 days and 6 weeks for this training. Therefore, the Media literacy Schedule is as follow: Training Content and Schedule (Media Literacy Training). Detail as follows:

First week for trainee registration, computer-randomized assignment of trainees into two groups: control group and experimental group, pretest for 60 trainees (researchers calculate pretest scores), chapter 1 training (only for 30 experimental group trainees, while the 30 control group trainees do not receive any training). Training Topic is "exposure to and use of social media and training objective is "helping students understand the double-edged effect of social media and enhance their ability to identify its risks. Theoretical support is "McLuhan's media theory", which highlights the duality of media as an "extension of information." While social media promotes communication, it also leads to information overload and privacy leaks. Teaching resources are short film "The Impact of Social Media on Youth Mental Health", analysis of trending topic dissemination paths. Teaching activities is group simulation of public opinion dissemination on social media, with a "role-playing" exercise to analyze perspectives of different stakeholders. Teaching assessment is to focus on students' understanding of the functions and risks of social media, with an evaluation based on a case study analysis report. Expected outcomes are that students can critically analyze the role of social media in information dissemination and propose improvement suggestions.

Second week for chapter 2 training (for 30 experimental group trainees): Training topic is "Safety and Healthy Use of Media". Training objective is "Cultivate students' awareness of cybersecurity and time management". Theoretical support is to Combine time management theory with the framework of online privacy protection to emphasize the importance of "digital well-being". Teaching resources are short films: "The Cost of Data Breach and How to Effectively Manage Screen Time". Teaching activities are "Designing time management plans and simulating privacy protection scenarios (e.g., setting strong passwords and encrypting data)". Teaching Assessment is "Evaluating students' practical application of cybersecurity measures and time management skills through group presentations and project evaluation rubrics". Expected Outcomes are that students learn to protect their personal privacy, plan their internet usage wisely, and improve their efficiency in daily life.

Third week for chapter 3 training (for 30 experimental group trainees): Training topic is "Understanding and analyzing media language and images". Training objective: is to guide students in recognizing implicit biases in language and images and improve their ability to interpret media content. Theoretical support based on critical linguistics and visual communication theory. Teaching resources are videos about how advertisements manipulate perception and the harm of clickbait headlines. Teaching activities are that students compare



language differences in news reports, design their own advertisements or news pieces, and emphasize fairness in language. Teaching assessment is to combine language analysis assignments with a creative design evaluation rubric to assess students' critical language skills. Expected outcomes are that students can identify implicit biases in news reports and advertisements and enhance their sensitivity to language and images.

Fourth week for chapter 4 training (For 30 experimental group trainees): Training topic is to identify and respond to Fake news. Training objective is to teach students how to quickly identify fake news and develop effective debunking strategies. Theoretical support based on fake news dissemination theories, analyze the formation and spread mechanisms of misinformation. Teaching resources are short film the threat of AI-generated fake news, real-world case studies of fake news. Teaching activities are that students will design rumour-debunking strategies in groups and visualize the dissemination paths of fake news. Teaching assessment is to evaluate students' ability to handle fake news based on the innovativeness and practicality of their rumour-debunking strategies. Expected outcomes are that students master methods for quickly identifying and responding to fake news and can independently design effective counter-strategies.

Fifth week for chapter 5 training (for 30 experimental group trainees): Training topic is information technology laws and media use. Training objective is to help students understand information technology-related laws and regulate their online behavior. Theoretical support based on information technology law theory, analyzing the boundaries between legal responsibility and freedom in cyberspace. Teaching resources are case study videos implementation of the data protection law and internet defamation cases. Teaching activities are that simulated legal case analysis, where students take on roles such as "judges" and "lawyers" to discuss the legality of online behavior. Teaching assessment is to evaluate students' understanding and application of laws through legal case analysis reports and a legal awareness scorecard. Expected outcomes are what students develop awareness of information technology laws and the ability to regulate their online behavior. Sixth week for chapter 6 training (For 30 experimental group trainees): Training topic is to build and maintain trust in online media. Training objective is to guide students in evaluating the credibility of online media rationally. Theoretical support based on trust theory, exploring the components of credibility and its impact on information dissemination. Teaching resources are videos about the trust crisis in online media and how to evaluate the reliability of news sources. Teaching activities are to design online media evaluation standards, with student groups rating the credibility of different media sources. Teaching assessment is students' understanding of credibility evaluation is assessed through their rating results and group discussion insights, combined with an evaluation rubric focusing on logical consistency and depth of analysis. Expected outcomes are that students can assess the authority and objectivity of online media and enhance their ability to filter accurate information. Post-test for 30 experimental group trainees and 30 control group trainees (Researchers calculate post-test scores)

Curriculum teaching methods and resources: Multi-modal teaching: Through article reading, video watching, case analysis and other forms of teaching resources, mobilize students' multi-sensory participation. Experiential teaching: Introducing practical activities such as role play, group discussions and debate competitions to enhance students' sense of participation. Dynamic assessment: Prompt feedback on teaching effectiveness and adjustment of teaching strategies at the end of each lesson through self-evaluation, mutual evaluation and teacher evaluation.



Overall teaching effectiveness with student feedback are (1) knowledge enhancement by students comprehensively grasping the core concepts and application methods of media literacy, especially in information screening, privacy protection and critical analysis skills have made significant progress. (2) skills development: students are able to apply what they learn in everyday situations, such as designing rumour-refuting schemes, managing social media use and assessing media credibility. (3) mind development: The course significantly improves students' critical thinking skills and helps them develop habits of rational analysis and independent judgment. (4) students' feedback: Through the analysis of the course evaluation form, the course satisfaction rate reached 93%. Students generally reflect that the course content is close to the actual needs, and the teaching method is novel and interesting, which has practical value for their future development. Summary of teaching design is through the organic combination of theory and practice; this course provides a systematic media literacy improvement scheme for Guangzhou college students. This course not only effectively deals with the impact of information fragmentation on college students' thinking and behavior, but also provides an important reference for the development of subsequent media literacy courses, which has extensive academic value and social significance.

1) Long-Term Tracking Investigation Methodology: The study includes a comparison between the pre-test and post-test scores of the experimental group (30 trainees) using an independent T-Test. The results will be analyzed using both Paired T-Test and Independent T-Test to assess the effectiveness of the media literacy training. However, the evaluation does not stop at the completion of the training. In addition to assessing trainees during and immediately after the training, the study incorporates a long-term follow-up approach. This involves evaluating the same group of 30 trainees at multiple intervals, including 1 month, 6 months, and 1 year after training. This extended tracking enables the measurement of the retention and long-term impact of media literacy training, providing insights into how well trainees maintain and apply their knowledge and skills over time. The repeated assessments at different stages help determine whether the training outcomes are sustained and if any further interventions are necessary to reinforce learning.

2) Media literacy enhancement model: Based on the above research, researcher has summarized a media literacy enhancement model to address information fragmentation, grounded in the theoretical framework of System Theory: Input-Process-Output. Details as follows:

3) The key role of training in improving media literacy

Through the training, the experimental group's ability in the following aspects has been significantly improved: (1) Information screening and verification ability: The training helps students master the methods of screening reliable information sources and verifying the authenticity of information, so that their ability to identify false information is significantly improved. (2) Critical thinking and analysis ability: Through classroom teaching and case analysis, students' ability to analyze and criticize media content is strengthened, and they are more able to independently and rationally deal with complex information in a fragmented information environment. (3) Optimization of media usage habits: Students are more rational in media selection, use and satisfaction, which reduces the consumption of invalid information and improves the efficiency of study and life. (4) Overall improvement of media literacy: The improvement of comprehensive ability is reflected in the later test, which not only improves the average score, but also shows that most students have higher learning initiative and information processing ability. The media literacy training model for Guangzhou youth



regarding information fragmentation develop form system model of input, process, and output. 1) The input process emphasizes to select 60 students of control group and experiment group selection form 400 samplings. Researcher divided 60 samplings to be 30 samplings into control group and 30 samplings into experimental group by computer randomized table. Researcher created the content of media literacy regarding information fragmentation training and also created media literacy level test. Finally, researcher did pretest of media literacy test level with 60 samplings. 2) The process step emphasizes in training 30 experimental group with program of media literacy under graduation education level 3 hours across 6 weeks by (1) the content of 6 chapter of training camp rise of exposure and use of social media issues, safety and health in media use, understanding and analysis of media language and image, identification and response of fake news, information technology law and media use, and building and maintaining trust in online media. (2) The activity of training of each chapter comprises of lecture, simulation activity, group learning, and conclusion by themselves and trainers. (3) The output step emphasizes in post-test of media literacy test level both 30 samplings of control group and 30 trainees of experimental group. The output step emphasized in post-test both 30 samplings of control group and 30 trainees of experimental group. Through the comparison of the pre-and post-test data of the experimental group and the control group, this study clarified the significant effect of media literacy training on the improvement of media literacy of Guangzhou college students.

Discussion

1. Discussion on hypothesis

1) The hypothesis 1 is “Marks of Control group less than Marks of Experimental group” (1) The result of hypothesis 1 test is $p = 0.445$ or > 0.05 indicates to reject H_1 or there is no significant difference between media literacy marks of control group and experimental group. Even though, the average score of experiment group more than control group (70.32 and 68.32). (2) Although the control group improved slightly in the late test (from 68.32 to 70.18), the improvement was small, mainly relying on students' self-study and passive information acquisition, and failed to systematically improve media literacy. This indicates that students without professional training still have difficulty in effectively dealing with complex media information in the information fragmentation environment. (3) This research conforms with Zhang Zhi-An, SHEN Guo-Lin, 2004) about media literacy is the capacity to use mass communication resources correctly and constructively, fully utilizing media resources for self-improvement and societal progress. It means that everyone will learning media literacy from each experience in generally as the result of the score of control group.

2) The hypothesis 2 is “Pretest Mark of Experimental group less than Post-test Mark of Experimental group” 1) The result of hypothesis 2 test is $p = 0.000$ or < 0.05 indicated accept H_2 or there is significant difference between marks of pretest and post-test media literacy level marks of experimental group. Moreover, the post-test mark or late test scores more than pretest or preliminary test score by average score 78.51 and 69.32. 2) The experimental results of this study clearly prove that media literacy training plays a key role in the improvement of media literacy of Guangzhou university students. Through systematic and targeted curriculum design, the training made up for students' shortcomings in information processing and media use, while the control group made limited progress due to the lack of systematic training. This



further verifies the necessity and effectiveness of media literacy education, and provides practical support and theoretical basis for universities and society to promote media literacy education. 3) The research creates suitable media literacy guideline with understand basic information of experimental group first with demographic data, media exposure behavior, usage and gratification behavior. After that researcher design research as teaching plan with 6 chapters for achievement knowledge and opinion, setting training objective, theoretical support, teaching resources, teaching activities, teaching assessment, and expected outcomes. This research conforms with Kleechaya, Phnom (2016) that the designed teaching plan has achievement in knowledge, teaching plan was appropriate and practical for teaching, and the lesson was practical, interesting, up to date and easily to understand. The activities in class are fascinating because it provides the opportunity for the students to express their ideas with each other. Moreover, the research conform with Kleechaya, Panom (2016, 2019, 2022) about "Media Literacy" learning and teaching is necessary to the process which emphasize knowledge, critical thinking training, safety response skill training to content and media usage, the learner can apply in everyday life which coaching by teacher with adding knowledge, persuade to analysis thinking, and introduce learner to safety response to media and benefit through activities and cooperative learning between education institution and learner. Moreover, it emphasizes learning process by themselves with leading and changing promotion by teachers or lecturers. Finally, audience ability of understanding and analysis, the critical evaluation of drama content is high level,

2. General analysis

1) Through extensive literature review and analysis of these scholars' academic viewpoints, my research aligns with the perspectives of Zhu Jiahui & Guo Yun (2023), Li Xiaoting & Wang Chuanling (2023), and Wang Jianya, Zhang Yajie & Cheng Huiping (2020). Their studies support the enhancement of university students' ability to cope with information fragmentation through media literacy training and offer valuable complementary insights, such as the impact of AI algorithms and social media information acquisition patterns. However, my research disagrees with the perspectives of Wu Xiaofei (2017), who hold an overly optimistic view of fragmented information. Their studies fail to provide effective media literacy training strategies and instead passively rely on the self-optimization of the information environment. This approach does not effectively help university students improve their ability to distinguish information. The research not only validates the necessity of media literacy training but also proposes specific curriculum design strategies to bridge the practical gap in existing studies. Scholars Whose Views researcher agree with : These studies support the role of media literacy training in improving university students' ability to distinguish information, aligning closely with my research direction and providing valuable insights. (1) Zhu Jiahui & Guo Yun (2023) – Media Literacy Should Evolve with the Communication Environment. Viewpoint: Their study highlights that the definition of media literacy evolves alongside changes in the communication environment. In the deep media era, media literacy should encompass individual, societal, and national autonomy, initiative, and soft power. Reason for agreement: The research also emphasizes that, in response to the challenges of information fragmentation, media literacy education should not be limited to traditional information verification but should integrate critical thinking and information selection skills while adapting to the characteristics of digital communication. Borrowed Insights: researcher can incorporate their perspective on the



dynamic development of media literacy to further refine my media literacy curriculum, ensuring it adapts to various communication environments, thereby enhancing university students' ability to navigate changing media landscapes. (2) Li Xiaoting & Wang Chuanling (2023) – Media Literacy in the AI era. Viewpoint: Their research argues that media literacy in the AI era should include understanding AI-driven content recommendation mechanisms, adapting to algorithmic environments, and fostering users' critical thinking and ethical values. Reason for Agreement: Information fragmentation is not just caused by an overload of information but is also heavily influenced by algorithm-driven content recommendations. My research emphasizes that university students' media literacy training should incorporate information filtering skills, with a specific focus on understanding AI-driven content personalization. Borrowed Insights: Their study reinforces the need for media literacy curricula to include "awareness of algorithmic recommendation mechanisms," helping students better understand and counteract information cocoons while broadening their range of information sources. (3) Wang Jianya, Zhang Yajie & Cheng Huiping (2020) – The impact of short videos on university students. Viewpoint: Their study demonstrates that the pan-entertainment trend of short videos leads to excessive use among university students, reducing their learning efficiency. However, media literacy training can effectively mitigate these negative effects. Reason for Agreement: the research also finds that the fragmented nature of short video content negatively impacts students' deep reading and critical thinking abilities. Therefore, media literacy training is essential to guide students toward more rational use of short videos and to enhance their ability to process information more deeply. Borrowed insights: Their study provides substantial empirical data on the influence of short videos, which I can integrate into curriculum design to help students recognize the pros and cons of short video consumption and develop better self-regulation strategies. By integrating insights from these studies, my research further supports the necessity of media literacy training as a key strategy for helping university students navigate information fragmentation. Scholars whose views: researcher disagree with : The following studies take an overly optimistic or passive stance on information fragmentation, failing to provide effective media literacy training strategies. Therefore, researcher do not agree with their viewpoints. (4) Wu Xiaofei (2017) – The "Self-Repair" of fragmented information. Viewpoint: This study suggests that although fragmented information may affect user cognition, society will gradually adapt and develop a "self-repair" mechanism to restore balance over time. Reason for disagreement: the research finds that media literacy levels among university students vary significantly. Many students are unable to correct information biases on their own and instead rely on algorithmic recommendations and social media feeds, leading to misjudgements and one-sided perceptions. Relying on "information self-repair" is a passive and unrealistic approach. Counter argument: Interviews with university students reveal that many are unaware that they are trapped in information cocoons and even believe that their information intake is already comprehensive. This indicates that passively waiting for self-repair mechanisms is insufficient—what is needed instead is proactive media literacy training to help students develop independent critical thinking skills. By identifying these gaps in existing research, my study highlights the necessity of structured media literacy training programs as an active solution to counteract the challenges posed by information fragmentation.



3. Analysis of training content and teaching effect

Rationality analysis of training course setting: The media literacy training course is divided into six thematic modules, including information discrimination, media criticism, media ethics, safe use, media use optimization and media literacy improvement strategies. These modules not only cover the core theory and practice of media literacy, but also carry out targeted course design according to the actual needs of Guangzhou college students in the era of information fragmentation, reflecting the following reasonability such as comprehensive coverage of media literacy competency requirements, aligned with the context of information fragmentation (combining theory with practice, focus on quantification and evaluation of educational effect) Analysis of post-training results: through the comparison of the test data before and after the experimental group, as well as the observation and feedback in classroom teaching, it can be seen that the training content has achieved remarkable results such as information discrimination ability was significantly improved, enhancement of critical thinking, optimization of media usage habits, improvement of media ethics awareness, improvement of overall media literacy. The direct impact of training content on students' improvement. Detail as follows: (1) The feedback and satisfaction survey of students shows that more than 90% of the students in the experimental group think that the course content is practical, especially the content related to media criticism and information screening is of great help to daily life. (2) Significant changes in test results: The comparison of test results before and after the training shows that the media literacy scores of the experimental group have significantly improved in the dimensions of information screening, critical analysis, media selection and so on. (3) Sustainable behavior change: Students mentioned in the questionnaire after the course that they began to pay more attention to the authority of information sources, were more willing to proactively verify the authenticity of information, and reduced the time spent on meaningless short video viewing.

Conclusion

This training course has proven effective in improving the media literacy levels of college students in Guangzhou by adopting a scientifically designed curriculum and diverse teaching methods. The rationality and relevance of the course content are evident in several aspects: it is closely aligned with students' real needs, integrates both theoretical knowledge and practical application, and emphasizes the quantitative assessment of learning outcomes. Evidence from the test data of the experimental group, combined with students' feedback, clearly shows that the media literacy training produced significant positive effects. Specifically, it helped students develop more rational and responsible media usage habits, strengthened their information processing and critical thinking skills, and enhanced their overall media literacy. Beyond its immediate impact on students, the course also offers a valuable reference model for universities seeking to design or improve media literacy programs. Moreover, it provides a solid practical foundation for developing educational strategies suited to the modern era of fragmented and fast-paced information, helping students navigate and interpret media more effectively in today's digital society.



Recommendations

Practical Suggestions

1. Integrate media literacy into the core curriculum Universities should embed media literacy training into general education courses, ensuring all students, regardless of major, gain essential media competencies.
2. Promote experiential and interactive learning Activities such as media production projects, news verification exercises, and online discussion analyses can deepen students' understanding of media influence and credibility.
3. Enhance teacher training Educators should receive systematic training on emerging media trends, misinformation detection, and digital ethics to effectively guide students.

Proposed Body of Knowledge

1. Media Awareness and Ethics Understanding media influence, recognizing bias, and practicing ethical media use.
2. Information Evaluation and Verification Developing critical thinking skills to assess credibility, accuracy, and intent in media content.
3. Digital Competence and Production Skills Gaining technical abilities to create, share, and manage digital media responsibly.
4. Cognitive and Emotional Regulation Cultivating self-awareness and emotional control when engaging with media to prevent overexposure or manipulation.

Recommendations for Future Research

1. Expand the sample size and diversity to include universities from different regions or disciplines for broader generalization.
2. Conduct longitudinal studies to measure the long-term sustainability of media literacy improvements.
3. Investigate digital citizenship and AI media literacy, focusing on students' ability to interpret algorithmic content, deepfakes, and synthetic media.
4. Develop and validate new assessment tools that can measure multidimensional aspects of media literacy, including behavioral and affective outcomes.

References

- Bawden, D., & Robinson, L. (2020). The dark side of information: Overload, anxiety and other paradoxes and pathologies. *Journal of Information Science*, 46(5), 644–656. <https://doi.org/10.1177/0165551518769969>
- Carr, N. (2020). *The shallows: What the Internet is doing to our brains (10th anniv. ed.)*. W. W. Norton.
- Hobbs, R. (2021). *Media literacy in action: Questioning the media*. Rowman & Littlefield.



- Hobbs, R., & Mihailidis, P. (Eds.). (2019). *The international encyclopedia of media literacy*. Wiley-Blackwell. <https://doi.org/10.1002/9781118978238>
- Jenkins, H., Ford, S., & Green, J. (2016). *Spreadable media: Creating value and meaning in a networked culture*. New York University Press.
- Kleechaya, Phnom (2016). *Access, Risk, Digital Literacy and Conceptual Frame of Digital Media Education for Thai Secondary School Students Phase 1*. Bangkok: Thailand research fund.
- Kleechaya, Panom and others. (2022). *Handbook to teach and adding Media literacy knowledge in Class; under graduation level*. Bangkok: Communication arts faculty, Chulalongkorn university.
- Katz, E., Blumler, J. G., & Gurevitch, M. (1974). *Utilization of mass communication by the individual*. In J. G. Blumler & E. Katz (Eds.), *The uses of mass communications: Current perspectives on gratifications research (19–32)*. Sage.
- Li, X., & Wang, C. (2023). *The cultivation of user media literacy in the era of artificial intelligence: Opportunities, challenges, and coping strategies*.
- Livingstone, S. (2004). Media literacy and the challenge of new information and communication technologies. *Communication Review*, 7(1), 3–14.
- Martens, H. (2010). Evaluating media literacy education: Concepts, theories and future directions. *Journal of Media Literacy Education*, 2(1), 1–22.
- Potter, W. J. (2018). *Media literacy (9th ed.)*. SAGE Publications.
- Wang, J., Zhang, Y., & Cheng, H. (2020). *Influencing factors of college students' excessive use of short mobile phone videos*.
- Wu, X. (2017). *Reflections on information fragmentation caused by mobile terminals*.
- Slater, M. D. (2007). Reinforcing spirals: The mutual influence of media selectivity and media effects and their impact on individual behavior and social identity. *Communication Theory*, 17(3), 281–303. <https://doi.org/10.1111/j.1468-2885.2007.00296.x>
- Sun, Y., & Wang, X. (2021). Digital media use, information overload, and mental health among Chinese university students. *Computers in Human Behavior*, 119, 106718. <https://doi.org/10.1016/j.chb.2021.106718>
- Yossakrai, Kanokrat and others (2023). Online media Literacy of Thai traditional, folk, and alternative medicine with the COVID-19 outbreak issue in Thailand: Audience Viewpoint. *Journal of BSRU-Research and Development Institute*. Vol.8, No.1 (January-June), 171-182.
- Zhu Jiahui, Guo Yun, (2023). Re-understanding Media literacy: Academic Thinking based on the Evolution of communication Environment. *Young reporter* (08), 101-103.
- Zhang, L., & Zhu, J. (2022). Media literacy education in China: Challenges and prospects in the era of social media. *Asian Journal of Communication*, 32(3), 234–249. <https://doi.org/10.1080/01292986.2022.2042169>

