# Digital media literacy, experiences and cultivation among Chinese vocational college students

Zhao, Jing Graduate School, Lyceum of the Philippines University – Batangas, Philippines

Received: 5 January 2024 Available Online: 2 March 2024 **Revised**: 1 February 2024 **DOI**: 10.5861/ijrse.2024.24608 Accepted: 10 February 2024



ISSN: 2243-7703 Online ISSN: 2243-7711

OPEN ACCESS

# Abstract

In the rapidly evolving landscape of education and technology, the role of digital media literacy has become increasingly pivotal, especially among students in vocational colleges in China. This research investigated the intricate relationships among digital media literacy, experience, and cultivation among Chinese vocational college students, and responded to the growing need for comprehensive insights into the nuanced relationships between these variables, with a specific focus on demographic factors that contributed to a potential digital gap. Employing a descriptive research method, the research aimed to provide insights into the foundational connections between these three variables and contribute to the formulation of a comprehensive development plan for digital media literacy among vocational college students. The findings revealed noteworthy disparities based on demographic factors, with male students, majoring in STEM, below 18, and urban residents consistently scoring higher than others. Furthermore, the study highlighted the generally positive levels of digital media literacy, experience, and cultivation among the majority of students. However, it identified a concerning lack of self-discipline in balancing digital media usage with academic learning efficiency. Moreover, the research established a significant correlation between the digital media literacy cultivation, literacy and experience, indicating a positive association. This suggested that as students' cultivation of digital media literacy improves, so did their overall competency in digital media literacy and experience. Consequently, the study proposed several recommendations for the development of digital media literacy among college students, calling for collaborative efforts from educational institutions, society, and families to construct a cohesive system for nurturing digital citizens. These insights contributed to the ongoing discourse on fostering digital literacy and offer valuable guidance for the implementation of effective development programs in the context of vocational colleges.

Keywords: digital media literacy, experience, cultivation, vocational college, digital gap

# Digital media literacy, experiences and cultivation among Chinese vocational college students

#### 1. Introduction

In today's digital era, characterized by an abundance of information and rapid technological advancements, the imperative for media information literacy, especially among the younger generation, is underscored by the prevalence of online hate speech, misinformation, and disinformation (UNESCO, 2018). Digital media has become integral to our daily lives, significantly impacting communication, learning, and interaction. This paradigm shift presents challenges for individuals, particularly the younger generation, who not only consume but actively participate in the creation and dissemination of digital content.

The context of this study was Chinese vocational college students, a crucial demographic at the intersection of digital media literacy, experiences, and cultivation. As China undergoes economic and technological advancements, vocational education becomes pivotal in equipping individuals with practical skills tailored to a rapidly evolving job market. The Ministry of Education's 2022 National Education Development Statistics Report highlights the significant growth in higher vocational education in China, emphasizing its importance in talent cultivation and the optimization of human resources. Despite the increasing importance of digital media literacy, challenges persist in the Chinese educational landscape. Digital media literacy education in Chinese universities has undergone stages of development, with a current focus on diversified approaches. However, issues such as rapid technological changes, a lack of qualified faculty, and imbalanced development pose challenges to effective education in this field.

This study delved into the intricate dynamics of digital media literacy, experiences, and cultivation among Chinese vocational college students. Focusing on social media platforms, online educational resources, and entertainment content, the research aimed to unravel how students navigate, interpret, and apply digital media in academic pursuits and daily life. Understanding their interactions with digital media is crucial, not only for individual development but also for enhancing employability and adaptability in a digitalized job market.

The significant meaning of digital media literacy is to construct a comprehensive cognitive framework to better understand and cope with the multiple challenges posed by the digital age. First, the variables of digital media literacy were studied in depth in order to gain insights into the basic competencies of individuals in the digital media environment. This included not only technical skills to access information, but also emphasized the ability to discern information, think critically, and applied digital tools effectively. Digital media literacy is not only about technical competence, but also about adaptation and understanding of the rich diversity of information, which helps to develop students with the ability to participate actively and think critically in a digital society (Bu, 2022).

Second, exhaustive studies of digital media experiences focused on students' actual interactions with digital media. This includes social media use, utilization of online educational resources, and exposure to entertainment content. By gaining a deeper understanding of students' digital media experiences, their behaviors and attitudes in information delivery, social interactions, and learning processes can be explored. This helps educators and policy makers to better understand students' digital media behavior patterns and provides a basis for developing personalized educational strategies and training programs (Gu, 2019).

Finally, the exploration of digital media cultivation included three important external factors: peer, online, and social environments. Peers, online communities, and social environments have a profound impact on the development of individual digital media literacy. Understanding how these external factors shape an individual's digital media literacy can help identify potential educational challenges and inform the creation of environments

more conducive to digital media literacy nurturing. In a digital society, such an all-encompassing examination can help better understand and respond to the diverse needs of education in the digital age, and prompt society to better guide and support students' development in the digital media environment (Zhang, 2022).

By thoroughly examining these three key variables, this study delved into the multilevel characteristics of students' digital media literacy. This provides schools, educational institutions, and society with a more concrete and in-depth understanding of how to better address the challenges of the digital age. Digital media literacy includes an individual's skills in applying different types of media, flexibility in interpreting information, and the ability to adapt in the face of emerging technologies and media forms. This not only extends to students' academic achievements but also applies to their overall literacy in career development and social life. At the level of digital media experiences, a detailed understanding of students' activities in social media, online learning and digital entertainment can reveal the ways and patterns of their interactions with digital media. Such insights can help to capture students' digital experiences so that they can be better targeted with educational resources and support. For schools and educational institutions, this means being able to better adjust their curriculum, teaching methods and development of digital resources to meet the actual needs of students in digital media. For digital media cultivation, examining the role of peer, online, and social environments provides insight into how the external environment shapes and influences students' digital media literacy. This provides a basis for the development of more effective social policies and school management standards. By understanding the potential challenges that exist in digital media cultivation, targeted interventions can be made to create environments that are more supportive of students' digital media literacy development.

Ultimately, through this comprehensive examination, schools, educational institutions, and society can better guide students in developing healthy, rational, and creative competencies for the digital age. This is not only about individual success, but also about creating a more inclusive and innovative digital culture for society as a whole, laying a solid foundation for future social development and progress.

The selection of the research paper was driven by a profound interest in understanding the dynamics of digital media literacy among students in Chinese vocational colleges. The significance of this study lies in the rapidly evolving digital landscape and the increasing importance of digital media skills in contemporary education and professional settings. As the digital landscape evolves, insights from this research have practical implications for education and media industries. Educators and policymakers can use the findings to enhance educational strategies, while media creators and platforms can tailor their content to meet the needs and preferences of this demographic. This research contributes to bridging potential gaps in digital literacy and fostering a generation well-prepared to critically engage with digital media.

**Objectives of the Study** - This study aimed to provide a clear outline of the importance and relevance of students' digital media literacy, experiences and cultivation among Chinese vocational college students. Specifically, it described the demographic profile of the participants in terms of sex, age, major, and area; assessed students' digital media literacy in terms of acquisition, evaluation, and production; identified students' digital media experiences in terms of usage habits, opportunities, and attitude; determined the students' digital media cultivation in terms of peer environment, internet environment, and social environment; tested the differences in the responses when grouped according to profile; tested the significant relationship among the three variables and proposed a digital media literacy program for Chinese vocational college students.

#### 2. Methods

**Research Design** - The study employed a descriptive-quantitative research approach to examine students' digital media literacy, digital media experiences, and digital media literacy cultivation in a Chinese vocational college. The descriptive-quantitative research approach combines both descriptive research, which aims to describe and summarize the characteristics of a phenomenon, and quantitative research, involving the measurement and analysis of numerical data to establish patterns, relationships, or trends. This approach often

entails the collection and analysis of quantitative data through surveys, questionnaires, or other structured instruments to provide a comprehensive and numerical description of the subject under investigation (Alshangiti, 2022).

*Participants of the Study* - The sample consisted of 390 randomly selected students from a vocational college in Henan province out of a total population of 10,000. The recommended sample size of 390 was determined using the Raosoft sample calculator. Consequently, 390 questionnaires were collected, achieving a 100% response rate.

Instrument of the Study - The questionnaire used in this study was adapted from Li Yuan's Doctoral dissertation titled 'Research on Media Literacy Cultivation of College Students in the New Era-Based on Development and Verification of Scale' (2022). The questionnaire comprises three subscales-acquisition, evaluation, and production of digital media information. Originally containing 50 questions, it was modified to a 4-point Likert Scale and reduced to 27 questions. Additionally, the questionnaire on students' digital media experience was adapted from Lu Feng's Doctoral dissertation titled 'A Study on the Localization of Media Literacy Education' (2011). This questionnaire includes three subscales—usage habits, opportunities, and attitude of students. Originally consisting of 82 questions across six dimensions (Usage habits, Opportunities, Attitude, Acquisition, Evaluation, and Production), it was modified to a 4-point Likert Scale and reduced to 27 questions focusing on three dimensions (Usage habits, Opportunities, Attitude) to avoid duplication. Another questionnaire used in the study was adapted from Luo Yi's Doctoral dissertation titled "Research on the Connotation and Educational Support of College Students' Information Literacy" (2021). This questionnaire consists of three subscales-Peer environment, Internet environment, and Social environment of digital media cultivation. Originally comprising 28 questions, it was modified to a 4-point Likert Scale and reduced to 27 questions. Following the measures, the reliability of the questionnaire was found to be very high, with the overall Alpha value approaching 1.0. This indicates a high degree of consistency across different dimensions, ensuring the reliability and trustworthiness of the results.

Table	1
-------	---

Indicators	Cronbach's Alpha	Remarks
Acquisition	0.909	Excellent
Evaluation	0.858	Good
Production	0.878	Good
Usage Habits	0.908	Excellent
Opportunities	0.849	Good
Attitude	0.950	Excellent
Peer Environment	0.869	Good
Internet Environment	0.883	Good
Social Environment	0.855	Good

 $\begin{array}{l} \mbox{George and Malley (2003) provide the following rules of thumb ">0.90 - Excellent, >0.80 - Good, >0.7 - Acceptable, >0.60 - Questionable, >0.50 - Poor, and <0.50 - Unacceptable" \end{array}$ 

**Data Gathering Procedure -** Data collection was conducted through electronic questionnaires distributed via WeChat groups, utilizing electronic links. To ensure the scientific authenticity and reliability of the sampling process, questionnaires were randomly distributed to college students. Each student was required to complete a questionnaire comprising four parts. Following data collection, the collected data were imported into an Excel spreadsheet and carefully checked to ensure questionnaire accuracy. To eliminate invalid questionnaires, the researcher provided precise instructions on questionnaire distribution. Surveys were conducted anonymously for academic research purposes, and respondents were requested to exercise patience during the 10-minute completion time-frame. The acquired data were intended exclusively for statistical research and analysis, barring any commercial utilization. Post data collection, the data underwent cleaning and organization processes to eliminate noise and construct the basic variable model. Subsequently, the answers were coded in Excel format and sent to the research center. Statisticians, employing professional statistical software, decoded the data. Further statistical methods, such as factor analysis, will be employed to analyze the relationships and influences among college students' personal digital media experiences, digital media literacy, and digital media cultivation. The research findings will be presented in a tabulated format to facilitate narrative and interpretation.

**Data Analysis** - To perform data analysis, the following statistical tools were used. Frequency and percentage distribution were used to describe the demographic profile of the participants in terms of sex, age, major, and area. Weighted means and ranking were used to assessed students' digital media literacy in terms of acquisition, evaluation, and production; identified students' digital media experiences in terms of usage habits, opportunities, and attitude; determined the students' digital media cultivation in terms of peer environment, internet environment, and social environment. The result of Shapiro-Wilk Test revealed that p-values of the main variable was greater than 0.05 which means that the data set is normally distributed. Therefore, Independent Sample t-test and Kruskal Wallis was used to test as part of the parametric tests to determine the significant differences. Likewise, Pearson Product Moment Correlation was used to test the significant relationship of the treated variables. In addition, post hoc test was also conducted. In addition, all data were treated using a statistical software known as PASW version 26 to further interpret the result of the study using an alpha level of 0.05 and 0.01.

*Ethical Considerations* - Upon obtaining approval from the Research Ethics Committee at Lyceum of the Philippines University-Batangas, this thesis received permission to proceed. Throughout the research process, the researcher strictly adhered to prescribed protocols and organized sessions to brief all participants on the study's objectives and procedures. Each participant provided written informed consent and received informational materials for future reference. It was emphasized to all participants that they were under no obligation to share any information and could withdraw from the study without facing any consequences. To safeguard their privacy, pseudonyms were assigned to all participants, and measures were taken to obscure or modify the true identities of schools and respondents. Electronically generated data are securely stored on a password-protected computer at Lyceum of the Philippines University-Batangas, while paper-based data is securely kept in a locked filing cabinet within the Faculty of Education.

# 3. Results and discussion

### Table 2

2 0				
Indicators	Weighted Mean	Verbal Interpretation	Rank	
Acquisition	3.18	Agree	2	
Evaluation	3.15	Agree	3	
Production	3.19	Agree	1	
Composite Mean	3.17	Agree		

Summary Table on Digital Media Literacy

Legend:3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

Table 2 summarizes the assessment of students' digital media literacy in the dimensions of Acquisition, Evaluation, and Production. The results indicate that 'Production' (3.19) is ranked 1st, 'Acquisition' (3.18) is ranked 2nd, and 'Evaluation' (3.15) is ranked 3rd. This suggests that participants perceive the 'Production' dimension as the most important in digital media literacy, representing the ability to create and produce, which participants deem crucial. Following closely are the Acquisition and Evaluation dimensions. The overall assessment of Digital Media Literacy is positive, with a composite mean of 3.17, falling within the 'Agree' range. The data implies that participants hold positive attitudes towards the dimensions of digital media literacy, considering these skills and competencies essential for their digital media literacy. Hua et al. (2023) assert that self-needs positively impact personal motivation, indicating that a stronger need for digital information correlates with higher motivation for engaging in digital literacy education.

According to Bu (2020), the evolution of digital media literacy education content has transitioned from the 'critical interpretation of media form, content, and its operation mechanism' to 'communication capacity building' and 'ethical and political education of communication.' Furthermore, it encompasses 'participation in the construction of civil society using platform media. In essence, accessing and evaluating digital media information represents a basic level of digital literacy, while higher standards involve producing, re-creating, and participating in social public affairs. Although this survey indicates a commendable level of digital media

literacy among today's college students, it also brings to light several challenges.

#### Table 3

Summary	Table on	Digital	Media	Experiences

Indicators	Weighted Mean	Verbal Interpretation	Rank	
Usage Habit	3.19	Agree	3	
Opportunities	3.23	Agree	2	
Attitude	3.35	Agree	1	
Composite Mean	3.26	Agree		

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 3 provides a summary of the assessment of college students' digital media experiences, considering usage habits, opportunities, and attitudes. The results reveal a composite mean of 3.26, indicating a general agreement among students across all three indicators. Notably, on all three dimensions, students scored higher in the attitude category (3.35) compared to opportunity (3.23) and usage habits (3.19). The highest score in the attitude dimension suggests that the majority of university students hold a positive view of digital media, reflecting its significant role in modern society. The opportunity dimension ranked 2nd, indicating that most students believe they have ample opportunities to engage with digital media. This perception likely stems from the easy access college students generally have to a variety of digital media and technologies.

The usage habits dimension ranked 3rd, implying that some students may struggle with self-control in their digital media usage, potentially facing challenges related to Internet addiction that could impact their learning. However, overall, the results still indicate that most students exhibit positive usage habits. Lin's survey (2019) reveals that groups with advantages in demographic factors, such as income, and those with the most familiarity and dependence on the Internet, perceive themselves to have the strongest discursive power on the Internet. Interestingly, even though students, who generally lack income, don't face significant financial concerns due to their school environments and family support, their sense of discursive power on the Internet is relatively high. This helps explain why the college student group scored highest on the attitude dimension and exhibited the most positive attitudes toward digital media experiences. However, it's worth noting that college students express lower confidence in their online discourse power. Song, et. al., (2023) highlights the contradiction between students' lower digital literacy levels and the increasingly digitalized, networked, and intelligent living and learning scenarios, which is becoming more prominent. With over 700 million netizens in China, a substantial portion being young netizens, addressing this large group's "discourse empowerment" becomes crucial. To achieve this, schools, governments, and societies should recognize and empower college students based on their intrinsic strengths. Additionally, guidance and support should be provided to help them communicate correctly and positively through relevant media.

#### Table 4

Indicators	Weighted Mean	Verbal Interpretation	Rank	
Peer Environment	3.21	Agree	2	
Internet Environment	3.14	Agree	3	
Social Environment	3.32	Agree	1	
Composite Mean	3.22	Agree		

Summary Table on Digital Media Cultivation

Legend:3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

Table 4 shows a summary of the assessment of college students' digital media cultivation in terms of peer environment, internet environment, and social environment. The results show a composite mean of 3.22, indicating that students generally agreed with all three indicators. For all three indicators, students had a higher score on the social environment (3.32) than on the peer environment (3.21) and internet environment (3.14). Based on this data, it can be concluded that the respondents perceived the peer environment, the Internet environment, and the social environment as being of some importance to their digital media cultivation. The social environment was perceived to have the greatest influence among these three factors, which may be related

to the shaping of digital media use by social policies, culture, and values. Peer and Internet environments were also seen to have some influence, particularly in relation to peer-to-peer interactions and Internet availability.

Song et al. (2023) believe that in the future, more attention should be paid to policy guidance and evaluation support for the cultivation of students' digital literacy, increasing the application of digital equipment and resources for the benefit of all, and strengthening the training of teachers in disadvantaged districts and schools, so as to continuously narrow the gap of students' digital literacy. The future should emphasize more on policy guidance and evaluation support for the cultivation of students' digital literacy. Some experts have proposed "collective digital literacy" or "collective media literacy," which encompasses not only individual skills, competencies, and creative imagination but also social networking, teamwork, conflict management, and differentiated service delivery required in public media environments. (Bu, 2020). These findings all reflect the importance of social, school, and online environments for the development of digital media literacy cultivation in college students.

#### Table 5

Acquisition	r-value	P-value	Interpretation
Usage Habit	.792**	0.000	Highly Significant
Opportunities	.779**	0.000	Highly Significant
Attitude	.698**	0.000	Highly Significant
Evaluation			2.00
Usage Habit	.863**	0.000	Highly Significant
Opportunities	.732**	0.000	Highly Significant
Attitude	.690**	0.000	Highly Significant
Production			2.00
Usage Habit	.831**	0.000	Highly Significant
Opportunities	.777**	0.000	Highly Significant
Attitude	.710**	0.000	Highly Significant

Relationship Between Digital Media Literacy and Digital Media Experiences

Legend: Significant at p-value <0.01

Table 5 presents the association between digital media literacy and experience. The computed r-values indicate a strong direct correlation, and the resulting p-values were less than the alpha level. This means that a significant relationship exists and implies that the better the assessment on digital media literacy, the better the digital media experiences. There is a highly significant positive correlation between the three components of usage habits, opportunities, and attitudes and digital media literacy. The correlation coefficients (r-values) are all greater than 0.7, and the p-values are all less than 0.01, which suggests that the relationship between college students' digital media experiences and digital media literacy is highly significant.

This means that individuals who have stronger habits of using digital media usually also have higher levels of digital media literacy. Individuals who provide more access to digital media may be more likely to have higher levels of digital media literacy. Additionally, positive attitudes contribute to higher levels of digital media literacy. In his survey, Sun (2023) found that a higher number of apps commonly used by college students indicated that they were involved in a wider range of digital practices. Meanwhile, Martszoukou, Fulton and Kostagiolas (2020) found that college students' digital competence was related to their prior experiences of participating in various digital activities, such as e-governance, e-health, e-leisure, e-learning, etc. This is all consistent with the findings of this study.

Table 6 displays the association between digital media literacy and cultivation. The computed r-values indicate a strong direct correlation, and the resulting p-values were less than the alpha level. The results reveal that there is a significant relationship and imply that the better the assessment of digital media cultivation, the better the digital media literacy. The results of the data indicate that the correlation coefficients (r-values) between the three dimensions of digital media literacy cultivation (Peer Environment, Internet Environment, and Social Environment) and the three dimensions of digital media literacy are all higher than 0.7, and p-values are all less than 0.01. This indicates a highly significant positive correlation between the two. This implies that there is a strong link between college students' digital media literacy and digital media literacy cultivation, and that a

#### Zhao, J.

more positive digital media literacy cultivation environment may promote stronger digital media literacy.

#### Table 6

Acquisition	r-value	P-value	Interpretation
Peer Environment	.911**	0.000	Highly Significant
Internet Environment	.648**	0.000	Highly Significant
Social Environment	.718**	0.000	Highly Significant
Evaluation			
Peer Environment	.853**	0.000	Highly Significant
Internet Environment	.693**	0.000	Highly Significant
Social Environment	.718**	0.000	Highly Significant
Production			
Peer Environment	.881**	0.000	Highly Significant
Internet Environment	.719**	0.000	Highly Significant
Social Environment	.725**	0.000	Highly Significant

Relationship Between Digital Media Literacy and Digital Media Cultivation

Legend: Significant at p-value <0.01

According to Sun, et. al., (2022), there are differences in digital media literacy among college students, which may originate from subjective factors (such as willingness to learn) or objective factors (related to the external environment). This difference directly leads to the emergence of a digital literacy gap, further exacerbating the inequality of learning ability and social survival ability among college students. According to Zhou, et. al., (2022), in today's digital age, the knowledge a person learns in school only accounts for about 10 percent of the knowledge he or she will need throughout life. Therefore, the school environment, social environment, and Internet environment have a significant impact on the life of a digital citizen, and a nurturing environment is conducive to enhancing a citizen's Digital Media Literacy.

#### Table 7

Relationship Between Digital Media Experiences and Digital Media Cultivation

Usage Habit	r-value	P-value	Interpretation
Peer Environment	.844**	0.000	Highly Significant
Internet Environment	.739**	0.000	Highly Significant
Social Environment	.748**	0.000	Highly Significant
Opportunities			
Peer Environment	.833**	0.000	Highly Significant
Internet Environment	.674**	0.000	Highly Significant
Social Environment	.739**	0.000	Highly Significant
Attitude			
Peer Environment	.690**	0.000	Highly Significant
Internet Environment	.582**	0.000	Highly Significant
Social Environment	.604**	0.000	Highly Significant

Legend: Significant at p-value <0.01

Table 7 presents the association between digital media experiences and cultivation. The computed r-values indicate a strong direct correlation, and the resulting p-values were less than the alpha level. This means that a significant relationship exists, implying that the better the digital media cultivation, the better the digital media experiences. The correlation coefficients (r-values) between digital media cultivation (Peer Environment, Internet Environment, and Social Environment) and the three dimensions of college students' digital media experiences (usage habits, opportunities, and attitudes) are very high, with r-values greater than 0.6 and p-values less than 0.01. This indicates a highly significant positive correlation between these two variables.

In summary, based on these data, it can be concluded that there is a highly significant positive correlation between peer environment, internet environment, and social environment with usage habits, opportunities, and attitudes. More positive environmental factors, particularly peer, Internet, and social environments, may help promote more positive usage habits and attitudes. Zhong et al. (2022) point out that digital inequality takes into account the imbalance of social development and various types of inequality, which can describe not only the differences between individuals and families but also the differences between communities and regions. Balancing the differences in digital media literacy can optimize the digital information cultivation environment,

and correspondingly, a good digital media cultivation environment can enhance the digital media literacy of citizens, and the two are complementary and mutually reinforcing. On the other hand, Yang (2022) points out that smartphones, mobile Internet, social media, 5G, AI algorithms, and other technologies have reconfigured the communication environment. In this new digital media environment, traditional media literacy cultivation faces difficulties. It can be seen that the relationship between the digital media cultivation environment and digital media experience can not only promote each other but also hinder each other. Therefore, it is worthwhile to draw the attention of society, government, and schools.

# 4. Conclusion and recommendations

The majority of the respondents were male, aged between 19 and 23, from urban areas, and studying in STEM majors. Most students had good digital media literacy, but they were relatively weak in accessing online learning resources and verifying the authenticity of digital information. Most students had a good digital media experience, but they had weak self-control in preventing Internet addiction and were not good at balancing online entertainment and learning. Most students' digital media literacy was well cultivated, but they were susceptible to online discourses that cause college students to feel dissatisfied with their lives, appearance, and identities, thus lowering their self-esteem and self-confidence. Comparison of digital media literacy, experience, and cultivation with groups according to profile revealed that male students in STEM majors had a better assessment than others. There was a significant relationship among the three variables, which indicated that the better the digital media literacy cultivation, the higher the college students' digital media literacy, and the better their digital media literacy, experience, and cultivation of college students in the digital age.

School administrators may implement personalized Digital Media Literacy Development Programs based on an assessment of the entire student body using three variables. Faculty in vocational colleges may actively promote digital media literacy programs, provide practical cases to develop students' hands-on skills, and encourage interdisciplinary courses to promote integrative literacy. Students in vocational colleges may take the initiative to participate in digital media training, utilize online resources to improve their ability to evaluate digital information, and actively participate in practical programs to enhance their hands-on experience, so as to become qualified digital citizens. Media organizations may enhance cooperation with schools, provide internship opportunities for students, conduct lectures to share industry experience, and establish platforms to facilitate exchanges and cooperation between academia and the industry, so as to promote better integration of students into the digital media field. Future research may focus on other demographic variables influencing the digital gap to broaden our understanding of the complex interplay between socio-economic factors, educational backgrounds, and technological access.

# 5. References

- Alshangiti, A. M. (2022). Quantitative sociolinguistics Methodology: A Descriptive and Analytical Study. *Journal of Research in Education and Psychology*, *37(2)*, 767-800.
- Bu, W. (2022). New Technologies, Old Questions: Communication, Sex, and Power. *Journalism and Writing*, *11(1)*
- Bu, W., & Ren, J. (2020). Beyond the "Digital Divide": Developing Socially Inclusive Digital Literacy Education. *Journalism and Writing*, 10, 30-38.
- Gu, T. L. (2019). The Construction of Emerging Disciplines in the Digital Economy Perspective. *China University Teaching*, 2019(6), 12-15.
- Hua, Y. W., Chen, Y., Wang, M., & Qian, J. (2023). Research on the participation Willingness of Rural Users in Digital Literacy Education in Eastern China: A Case Study of Z City, Jiangsu Province. *Library and Information Service*, 15, 56-66. doi:10.13266/j.issn.0252-3116.2023.15.006.
- Lin, H. (2019). Exploration of Cultivating University Students' Guided Discourse Power in the New Era. *Journal of Ideological and Theoretical Education, (02)*, 130-133. doi:10.16580/j.sxlljydk.2019.02.040.

- Luo, Y. (2021). Research on College Students' Information Literacy and Its Educational Support [Doctoral dissertation, East China Normal University].
- Song, L., Xu, L., Zhu, S., et al. (2023). Current Status and Cultivation Strategies of Digital Literacy Among Middle School Students in China: An Assessment of 25,032 Middle School Students in Six Provinces and Cities in Eastern, Central, and Western China. *Modern Distance Education Research*, 1-9.
- Sun, S. (2023). A Study on Digital Literacy Among College Students:Perceptions, Digital Divide, and Digital Experience. *Library Construction*, 1-14. [Online]. Retrieved from http://kns.cnki.net/kcms/detail/23.1331.g2.20230320.1328.004.html.
- Sun, W. C., Lu, Z. P., & Wang, Z. X. (2021). Maintaining the Dignity of Older Adults: A Conceptual Model of Autonomy in the Application of Digital Technology by the Elderly. *Library Tribune*, 41(8), 86-95.
- UNESCO. (2019). Universal Service and Access Index. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000370691.
- Yang, N. (2022). Exploring Media Literacy Education in the New Communication Ecosystem: A Review of the Mediawise Youth Program. *Youth Journalist*, 2, 104-105. doi:10.15997/j.cnki.qnjz.2022.02.039
- Zhang, Q. Y. (2022). Current Research and Future Prospects of Digital Literacy Education. *Computer Knowledge and Technology*, 08, 174-175+180. doi:10.14004/j.cnki.ckt.2022.0458
- Zhong, X. M., & Fang, X. D. (2022). The Evolution of the Digital Divide and the Rise of the Intelligent Divide: A Perspective on the Transformation and Evolution of Information Dissemination Mechanisms in Human Society Driven by the Internet Over the Past 50 Years. *Journal of Journalists, (08),* 34-46. doi:10.16057/j.cnki.31-1171/g2.2022.08.003
- Zhou, C., & Liu, Y. (2022). The Connotation, Framework, and Enhancement of Digital Literacy for Higher Vocational College Students in the Context of Digital China Construction. *Computer and Telecommunication, 2022(12),* 6-9. doi:10.15966/j.cnki.dnydx.2022.12.003