

THE DEVELOPMENT OF DIGITAL LITERACY OF COLLEGE STUDENT AFFAIRS PROFESSIONALS

Yunjiao WANG¹

¹ Department of Educational Administration, Suan Sunandha Rajabhat University,
Thailand; wyunjiao1992@163.com

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ABSTRACT

As digital transformation penetrates higher education, college Student affairs professionals face multidimensional challenges in role definition, competency requirements, and practice methodologies. Based on role theory, this paper constructs a theoretical framework including core concepts such as digital transformation and digital literacy, analyzes the practical dilemmas of Student affairs professionals in terms of role expectation conflicts, role ability gap, and inadequate role support system, and proposes a four-dimensional development path of role cognition remodeling, role ability improvement, role practice innovation, and enhanced role support. The study points out that colleges and universities need to promote the transformation of Student affairs professionals to new roles such as digital literacy trainers and data analysts through dynamic job standards, a "digital literacy " training system, an intelligent work platform, and policy incentive mechanisms. This path provides theoretical and practical guidance for the professional development of Student affairs professionals teams, and future research can explore customized strategies combined with empirical studies.

Keywords: Digital Transformation, Role Theory, Student Affairs Professionals

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INTRODUCTION

With the rapid development of information technology, digitalization has penetrated into all areas of social life. As an important base for cultivating high-quality skilled talents, the digital capabilities of the college Student affairs professionals team are particularly important (Tang & Liu, 2024). Digital capabilities, that is, the ability to use digital technology and information resources to solve problems, are not only the key to improving the work efficiency of college Student affairs professionals, but also an inevitable requirement for adapting to the development of educational informatization (Yu, 2024). However, every member of society plays a specific social role, and has different roles in different social situations. These roles are determined according to the society's expectations and norms for related behaviors (Welles, 2020). In this context, digital transformation is reshaping the role positioning and work paradigm of college Student affairs professionals. Student affairs professionals, traditionally serving as frontline staff in student services, have historically assumed multiple roles including ideological education providers, academic administrators, and mental health Student affairs professionals. However, the digital age presents new demands on their professional responsibilities and practice methods, requiring them to evolve into digital literacy cultivators, online ideological education leaders, data application analysts, and technical ethics guides (Liu et al, 2024). Digital transformation has driven the reshaping of the roles of the college Student affairs professionals, who need to shift from traditional multiple roles to new roles such as digital literacy cultivators and online ideological and political leaders in order to adapt to the needs of educational informatization and improve work efficiency and education quality. In this context, exploring the digital literacy development pathways for college Student affairs professionals through role theory holds significant importance. As a crucial framework explaining how social relationships influence individual behaviors, role theory provides a micro-level perspective to understand how these professionals adapt their roles and build capabilities in the digital era. By analyzing the practical challenges students face in adapting to new roles during digital transformation, this study constructs a systematic development pathway. The aim is to provide theoretical references and practical guidance for professionalizing the workforce of university student affairs personnel.

METHODOLOGY OF LITERATURE REVIEW

This study adopts a structured literature review approach to analyze the development of digital literacy among college student affairs professionals. The aim of the review is to synthesize existing scholarly findings on digital transformation, role theory, and the professional development of student affairs staff in higher education.

Literature Search Strategy

A comprehensive search was conducted across major academic databases, including Web of Science, Scopus, ERIC, and China National Knowledge Infrastructure (CNKI), covering the period from 2013 to 2025. Search strings utilized combinations of keywords such as "digital transformation," "digital literacy," "student affairs professionals," "counselors," and "role theory." The initial search yielded over 100 publications from the selected academic databases. After removing duplicate and irrelevant records through title and abstract screening, 37 articles were retained for full-text review. Following a detailed assessment based on the inclusion and exclusion criteria, 22 studies were ultimately selected for in-depth analysis.

Inclusion and Exclusion Criteria

Studies were included if they: (1) focused on higher education administration; (2) specifically addressed the digital competencies of student affairs personnel; and (3) utilized role theory or related organizational behavior frameworks. Sources such as non-peer-reviewed blog posts or general news articles were excluded to maintain academic rigor.

Data Synthesis

A thematic analysis was employed to categorize the literature into three primary dimensions: theoretical frameworks, practical dilemmas, and developmental pathways. This process allowed for the identification of gaps between current professional capabilities and evolving institutional expectations

CONCEPTS CONCERNING

Digital Transformation

Digital transformation is the process of creating value through digital technologies and capabilities by innovating business models, operational processes, and consumer experiences. It involves comprehensive changes in organizational personnel, workflows, technologies, and data (Mhlanga, 2024). In the education sector, digital transformation focuses on applying digital technologies to teaching methods, management systems, and classroom practices. Its aim is to enhance educational quality, optimize resource allocation, and boost innovation capabilities through modern information technology. This initiative forms a crucial component of national digital strategies.

Role Theory

Role theory is an important theory in social psychology, and its main founder is the American sociologist and social psychologist George Herbert Mead. It is mainly used to explain the impact of social relations on human behavior. Role theory assumes that individuals will exhibit different behaviors according to their different roles in a specific social system, and explains the micro-foundation of differences in organizational behavior patterns. By analyzing the generation and change process of role-playing behaviors of college Student affairs professionals in the digital age, it is helpful to explore the path to improve Student affairs professionals' digital capabilities to adapt to the development needs of the digital age.

Digital Literacy

Digital literacy refers to the ability to confidently and critically apply information and communication technologies in work, study, self-development, and social participation. It encompasses core elements such as mastery of digital technology principles, application of educational tools, and problem-solving capabilities. For university student affairs professionals, digital literacy serves as a crucial support for advancing educational digitization and adapting to role transitions.

The Digital Age

The digital age refers to a historical development stage marked by the widespread application and deep penetration of digital technology. Its core feature is that information technology has become a fundamental element of social operation. This concept was first systematically expounded by Nicholas Negroponte in his book *Being Digital* in 1995, and has now become a key term to describe the contemporary social form.

Student affairs professionals

In China, Student affairs professionals are also called "counselors," a term first proposed by the Ministry of Education in 1952, referring to professionals responsible for the daily management, service, and support of students in educational institutions (e.g., universities, middle schools). Their core responsibilities include ideological and political education, academic guidance, psychological counseling, dormitory management, award and loan management, employment and entrepreneurship services, campus activities organization, and emergency handling, aiming to promote students' all-round development and ensure normal teaching order and campus stability.

REALISTIC CHALLENGES TO ROLE ADAPTATION IN THE DIGITAL AGE

Against the backdrop of accelerating digital transformation in higher education, college Student affairs professionals face unprecedented pressure to adapt their roles and practices. As institutions strive to integrate digital technologies into student services, teaching, and management, the traditional model of student affairs—centered on administrative oversight and ideological guidance—has become inadequate to meet evolving demands. However, systemic barriers hinder this transition: insufficient leadership coordination for aligning digital initiatives with institutional strategies (Zabalawi et al, 2024), limited resources for infrastructure and training, and widespread gaps in digital literacy among faculty and staff. Compounded by uneven technology adoption across institution types and shrinking funding for projects, these challenges exacerbate tensions in role adaptation. The following analysis examines three critical dilemmas confronting Student affairs professionals in this context: role expectation conflict, capability gaps, and inadequate support systems.

Role Expectation Conflict

Role expectations refer to the common expectation system of the behavior patterns that a person with a specific social position or identity should exhibit (Biddle, 2013). It describes the behaviors and role responsibilities that an individual or group expects others to exhibit in a certain role. In different environments and backgrounds, the expectations of different roles will be different. College Student affairs professionals must form their own professional identity roles and maintain their differences from students in order to meet the role expectations of different subjects such as teachers themselves, other teachers and students. With the advent of the digital age, the established role expectations of Student affairs professionals, students and schools are once again challenged. Teachers and students are given new role expectations. The differences between school requirements and student expectations, the balance between technological empowerment and humanistic care, the contradiction between data application and privacy protection, and the game between innovative exploration and normative constraints will inevitably require college Student affairs professionals to make further improvements.

Role Ability Gap

Although some colleges and universities have begun to pay attention to the cultivation of Student affairs professionals' digital literacy and have successively opened various digital technology training courses and special lectures (Adiyono et al, 2024). Some Student affairs professionals have also taken the initiative to explore digital teaching models, such as conducting micro-course teaching through online platforms. This innovative measure has significantly improved the attractiveness and dissemination effect of teaching content. In terms of student management, some colleges and universities have developed digital management systems that enable Student affairs professionals to more conveniently obtain student information, analyze student behavior data, and improve management efficiency and accuracy. In terms of digital management systems, some colleges and universities have developed an integrated student management information system that integrates student records, grade data, attendance records, and reward and punishment information. Through these systems, Student affairs professionals can quickly retrieve and analyze student information and promptly identify existing problems and needs. However, there are significant differences between Student affairs professionals from different colleges and universities, different age groups, and different academic backgrounds. There are still practical problems such as insufficient ability to apply digital tools, lack of data analysis and interpretation capabilities, limited experience in responding to online public opinion, and weak technical ethical judgment literacy. The overall level of digital literacy is uneven.

Inadequate Role Support System

Although some colleges and universities have carried out digital technology training and lectures, most colleges and universities are still unable to carry out systematic training due to funding and

resource issues, and the digital training system is imperfect. At the same time, many current training courses mainly focus on theoretical explanations and tool demonstrations, but lack real educational scenario simulations and practical guidance. As a result, although Student affairs professionals have mastered theoretical knowledge, they find it difficult to flexibly apply it to actual work. In addition, although most Student affairs professionals have realized the importance of digitalization in their work, some Student affairs professionals still lack sufficient digital awareness. They may still be accustomed to traditional working methods, have not yet fully understood and accepted digital thinking patterns and tool applications, and lack matching evaluation and incentive mechanisms(Ren, 2024). It is necessary to continuously enhance role support, improve the tiered training system, strengthen scenario-based practice, and establish a digital capability assessment and incentive mechanism in order to enable the Student affairs professionals team to adapt to the development needs of digital education and effectively improve the effectiveness of education.

CONSTRUCTION OF DIGITAL COMPETENCE DEVELOPMENT PATHWAYS

The literature on digital transformation in higher education consistently indicates that professional adaptation requires not only technological infrastructure but also systematic changes in professional identity, competency development, work practices, and institutional support systems. Previous studies have emphasized that educators and student service personnel must develop digital competencies in order to respond effectively to the increasing integration of information technology into educational governance and student management (Mhlanga, 2024; Joseph et al, 2024;Bond et al, 2020;Soekamto et al, 2022). At the same time, research based on role theory suggests that professional behavior and performance are strongly influenced by role expectations, role identity, and the structural conditions within organizations (Biddle, 2013). When digital transformation reshapes organizational environments, professionals are required to renegotiate their roles and acquire new competencies to meet emerging expectations (Yu, 2024). In this context, existing studies on digital education and professional development highlight several key dimensions that are critical for supporting the role adaptation of student affairs professionals. These include the reconstruction of professional identity, the enhancement of digital skills, the innovation of work practices through technology, and the establishment of supportive institutional systems (George & Wooden, 2023; Ren, 2024;Liu, 2025;Tull et al, 2023). Synthesizing these findings, the literature suggests that the development of digital competence among student affairs professionals can be understood through four interrelated dimensions: role cognition remodeling, role ability improvement, role practice innovation, and enhanced institutional support. These dimensions collectively form a comprehensive pathway for facilitating the professional adaptation of student affairs professionals in the digital era.

Role Cognition Remodeling

The transformation of professional roles in the digital era has been widely discussed in studies on educational digitalization. Digital transformation not only introduces new technologies into educational management but also fundamentally reshapes the professional identity and role expectations of educators and student service personnel (Yu, 2024). From the perspective of role theory, individuals adjust their behaviors and professional practices according to the expectations associated with their social roles (Biddle, 2013). When technological environments change, these expectations also evolve, requiring professionals to reconstruct their understanding of their responsibilities and professional identity. Existing research indicates that educators are increasingly expected to assume roles beyond traditional administrative or instructional functions. In the context of digital education, professionals are expected to act as facilitators of digital learning, data-informed decision-makers, and guides for responsible technology use (Mhlanga, 2024). For student affairs professionals in particular, digital transformation expands their

responsibilities from routine student management to new tasks such as online student engagement, digital literacy guidance, and the analysis of student data to support personalized services. Scholars have argued that clearly defined competency frameworks and updated job descriptions can help educators adapt to these emerging role expectations by clarifying professional responsibilities and reducing role ambiguity (George & Wooden, 2023). In addition, institutional initiatives that promote a shared understanding of digital transformation can strengthen professionals' identification with their evolving roles. Therefore, the literature suggests that reconstructing role cognition is a foundational step in the development of digital competence among student affairs professionals, enabling them to align their professional identity with the demands of the digital educational environment (Laitkep & Stofkova, 2020).

Role Ability Improvement

In addition to changes in role cognition, the development of digital competence requires systematic enhancement of professional capabilities. Numerous studies have identified digital literacy as a critical competency for educators and education administrators in the context of digital transformation (Ren, 2024). Digital literacy encompasses not only technical skills related to the use of digital tools but also the ability to analyze data, communicate effectively in online environments, and address ethical issues associated with digital technologies. Research has shown that many education professionals experience significant capability gaps when confronted with new digital tasks, particularly in areas such as data analysis, online communication, and digital content management (Joseph et al., 2024). These capability gaps often limit the effective integration of digital technologies into educational practices and student services. Consequently, scholars have emphasized the importance of structured professional development programs to enhance educators' digital competencies (DiRamio, 2023). Existing literature highlights several effective approaches to professional development in this area. These include blended training models that combine online learning with face-to-face workshops, specialized training modules focusing on digital tools and data literacy, and mentorship systems that support continuous professional learning (Tang & Liu, 2024). In addition, participation in academic exchanges, professional networks, and digital innovation projects can provide valuable opportunities for educators to develop and refine their digital competencies. Taken together, these findings suggest that systematic and diversified training mechanisms play a crucial role in strengthening the digital capabilities of student affairs professionals and enabling them to adapt to technologically mediated educational environments.

Role Practice Innovation

Another important dimension highlighted in the literature is the transformation of professional practices through digital technologies. Digital transformation in higher education has enabled the development of intelligent management platforms and data-driven decision-making systems, which have significantly changed the way student services are delivered (George & Wooden, 2023). Studies have demonstrated that the integration of digital platforms into student affairs management can enhance both efficiency and precision in student services. For example, digital student information systems allow professionals to collect, manage, and analyze large amounts of student data, facilitating early identification of academic risks and enabling more targeted interventions (Joseph et al., 2024). Similarly, online communication platforms and digital engagement tools have expanded the channels through which student affairs professionals interact with students, making it possible to provide more flexible and personalized support (Wang, 2026). Furthermore, the application of big data analytics and artificial intelligence in educational management has created new possibilities for predictive analysis and personalized student services. Through the analysis of behavioral data, learning records, and other digital traces, institutions can construct comprehensive student profiles and develop early warning systems for academic or psychological risks. These technologies enable student affairs professionals to adopt more proactive and evidence-based approaches in their work.

The literature therefore suggests that innovation in professional practices, supported by intelligent technological platforms, is an essential component of digital competence development. By integrating digital technologies into daily work processes, student affairs professionals can enhance the effectiveness and responsiveness of student services (Bhatia et al,2024).

Enhanced Role Support

In addition to individual competencies and professional practices, institutional conditions play a critical role in shaping the effectiveness of digital transformation in higher education. Research has consistently shown that organizational support, policy frameworks, and resource allocation significantly influence the success of digital initiatives (Zabalawi et al, 2024). One important aspect of institutional support involves the establishment of clear policy frameworks that integrate digital competencies into professional evaluation and development systems. Studies suggest that when digital literacy is incorporated into performance evaluations, promotion criteria, and professional development plans, educators are more likely to engage actively in digital learning and innovation (Ren, 2024). Such mechanisms help align individual professional development with institutional strategic goals. In addition, adequate investment in digital infrastructure and technological platforms is essential for supporting the digital practices of student affairs professionals. Without reliable technological systems and access to digital resources, the development of digital competence may remain limited despite training efforts (Nwokocha & Ifeoma, 2025). Another important institutional factor involves the creation of supportive professional environments that encourage experimentation and innovation. Flexible organizational structures, collaborative networks, and interdisciplinary cooperation can facilitate knowledge sharing and promote the continuous improvement of digital practices (Waite & Wheeler, 2020). Overall, the literature indicates that the development of digital competence among student affairs professionals requires not only individual effort but also strong institutional support systems. By providing policy guidance, technological infrastructure, and supportive professional environments, higher education institutions can create favorable conditions for the successful adaptation of student affairs professionals to the digital era.

CONCLUSION

This study reviewed existing research on digital transformation, role theory, and digital literacy in higher education and analyzed the challenges faced by college student affairs professionals in adapting to the digital era. Through a structured literature synthesis, three major dilemmas were identified: role expectation conflicts, capability gaps, and insufficient institutional support systems. Based on these findings, the study proposed a four-dimensional development framework encompassing role cognition remodeling, role ability improvement, role practice innovation, and enhanced role support. This framework integrates insights from role theory and digital competence research, offering a conceptual model for understanding the professional adaptation of student affairs professionals in the context of digital transformation. The study contributes to the existing literature by linking role theory with digital literacy development in student affairs work, an area that has received limited scholarly attention. However, as this research is based on a literature review, future studies should incorporate empirical methods—such as surveys, interviews, or case studies—to further validate and refine the proposed framework across different institutional contexts.

REFERENCES

- Adiyono, A., Hayat, E. W., Oktavia, E. D., & Prasetyo, N. T. (2024). Learning interaction in the digital era: Technological innovations and education management strategies to enhance student engagement. *Journal of Research in Instructional*, 4(1), 205–221.
- Biddle, B. J. (2013). *Role theory: Expectations, identities, and behaviors*. Academic Press.

- DiRamio, D. C. (2023). Professional competencies and standards of practice: The student affairs perspective from the Student Affairs Administrators in Higher Education, College Student Educators International, and Council for the Advancement of Standards in Higher Education. In *Advancing Higher Education as a Field of Study* (pp. 77-92). Routledge.
- Soekamto, H., Nikolaeva, I., Abbood, A. A. A., Grachev, D., Kosov, M., Yumashev, A., ... & Nikitina, N. (2022). Professional development of rural teachers based on digital literacy. *Emerging Science Journal*, 6(6), 1525-1540.
- Liu, X. (2025). Transformation Logic and Practical Challenges in University Student Affairs Management in the Digital Era. *Journal of Modern Educational Theory and Practice*, 2(8).
- Tull, A., Hirt, J. B., & Saunders, S. (Eds.). (2023). *Becoming socialized in student affairs administration: A guide for new professionals and their supervisors*. Taylor & Francis.
- George, B., & Wooden, O. (2023). Managing the strategic transformation of higher education through artificial intelligence. *Administrative Sciences*, 13(9), 196.
- Joseph, O. B., Onwuzulike, O. C., & Shitu, K. (2024). Digital transformation in education: Strategies for effective implementation. *World Journal of Advanced Research and Reviews*, 23(2), 2785–2799.
- Laitkep, D., & Stofkova, K. R. (2020). Digital transformation challenges and opportunities in university education. *EDULEARN20 Proceedings*, 8048-8055.
- Liu, Y., Meng, Y., & Liang, Z. (2024). Research on the cultivation paths of digital literacy for college counselors under the background of digital transformation. *Journal of Computer Technology and Electronic Research*, 1(3).
- Mao, Y. (2025, February). Research on the cultivation model and optimization path of employment guidance in higher vocational colleges under the background of digital transformation. In *Proceedings of the 2025 International Conference on Big Data and Informatization Education* (pp. 125–131).
- Mhlanga, D. (2024). Digital transformation of education: The limitations and prospects of introducing the fourth industrial revolution asynchronous online learning in emerging markets. *Discover Education*, 3(1), 32.
- Nwokocha, C. S., & Ifeoma, P. O. (2025). DIGITAL ETHICS IN VIRTUAL CLASSROOMS AND EDUCATIONAL TECHNOLOGY: NAVIGATING CHALLENGES AND OPPORTUNITIES. *INT’L JOURNAL OF EDUCATION, MANAGEMENT SCIENCES AND PROFESSIONAL STUDIES*, 1(2), 599-609.
- Ren, L. (2024). Research on the cultivation path of digital literacy of college teachers in the context of digital transformation of education. *Advances in Vocational and Technical Education*, 6(2), 154–158.
- Bond, M., Bedenlier, S., Buntins, K., Kerres, M., & Zawacki-Richter, O. (2020). Facilitating student engagement in higher education through educational technology: A narrative systematic review in the field of education. *Contemporary Issues in Technology and Teacher Education*, 20(2), 315-368.
- Tang, Z., & Liu, Y. (2024). Research on the path of improving the digital competency of counselors in higher vocational colleges. In *2024 14th International Conference on Information Technology in Medicine and Education (ITME)* (pp. 406–409). IEEE.
- Bhatia, A., Bhatia, P., & Sood, D. (2024). Leveraging AI to transform online higher education: Focusing on personalized learning, assessment, and student engagement. *International Journal of Management and Humanities (IJMH) Volume-11 Issue-1*.
- Welles, J. F. (2020). The stupidity of roles. *Academy of Social Science Journal*, 5(7), 1714–1719.

- Wang, Y. (2026). How Digital Well-Being and Generative AI Achieve Student Academic Success and Sustainable Development Goals. *JoVE (Journal of Visualized Experiments)*, (228), e70211.
- Yu, H. (2024). The application and challenges of ChatGPT in educational transformation: New demands for teachers' roles. *Heliyon*, 10(2).
- Zabalawi, I., Kordahji, H., & Aftimos, S. (2024). Digital transformation in universities: Strategic framework, implementation tools, and leadership. In *Higher education in the Arab world: Digital transformation* (pp. 145–210). Springer Nature Switzerland.
- Waite, B. C., & Wheeler, D. A. (2020). Social media for student affairs in# HigherEducation: Trends, challenges, and opportunities.
- Zhao, H. (2014). The impact of social media on student affairs practice: Opportunities and challenges. *Journal of Social Media in Society*, 3(1), 45–58.

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