

Digital Literacy for Foreign Language Teachers in Chinese Universities?—A Study on Its Meaning and Application

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With the rapid evolution of information technology and the exponential development of artificial intelligence (AI), higher education has entered the age of digital intelligence. In this context, digital literacy has become an essential competency for educators. Grounded in Yoram Eshet-Alkalai's five-dimensional framework of digital literacy—photo-visual literacy, reproduction literacy, branching literacy, information literacy, and socio-emotional literacy—this study explores the meaning, features, significance, and application of digital literacy for foreign language teachers in Chinese universities. Moreover, this paper uses several cases to elucidate how these five dimensions manifest in the professional practices of foreign language teachers in Chinese universities. Through clarifying what their digital literacy is, what dimensions it has, and what it can do, this study aims to provide theoretical foundations and practical insights for a comprehensive understanding and effective application of digital literacy for foreign language teachers in Chinese universities.

Keywords: college foreign language teachers, digital literacy, AI

Introduction

In the era of digital intelligence, information technology and artificial intelligence (AI) have profoundly transformed the educational landscape, particularly in the domain of language education. Within higher education, foreign language teachers in universities, as the primary facilitators of language pedagogy, are required to cultivate robust digital literacy. This competency enables them to harness modern technologies effectively, thereby empowering their teaching and research with diversity, innovation, and high quality. Nevertheless, digital literacy transcends mere technical proficiency in deploying AI and related technologies. Beyond operational skills, it also entails distinct affective and cognitive dimensions and other aspects, constituting a multifaceted and integrative form of expertise.

As Gilster (1997) first conceptualized, digital literacy emphasizes the ability to critically evaluate, synthesize, and ethically engage with digital information. This multifaceted skill set enables individuals to adapt to rapidly evolving technologies while fostering informed participation in digital spaces (UNESCO, 2018). In 2021, the “*Action Outline for Enhancing Digital Literacy and Skills Nationwide*” issued by Cyberspace Administration of China (2021) pointed out that digital literacy and skills are a collection of qualities and competencies, such as digital acquisition, production, use, evaluation, interaction, sharing, innovation, safety, security, ethics, and morals, that citizens in a digital society should possess in order to learn and work and live in a digital society. Immediately after that, the Ministry of Education in China issued *The Digital Literacy for Teachers* (2022), which

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defines digital literacy for teachers as

the awareness, ability, and responsibility of teachers to appropriately utilize digital technology to acquire, process, use, manage, and evaluate digital information and resources, to identify, analyze, and solve educational and teaching problems, and to optimize, innovate, and transform educational and teaching activities.

The promulgation of these official documents provides a key guide to understand the meaning of teachers' digital literacy. In the specific discipline of foreign language teaching in Chinese universities, there have been a number of studies mainly examining foreign language teachers' current problems as well as the paths and strategies for the enhancement of their digital literacy (Su & Wang, 2022; Xiao, Zou, Feng, & Jiang, 2024; Wang & Lu, 2025). However, most of the studies have only made general and simple definitions of digital literacy for foreign language teachers in Chinese universities, seldom delving into its features, dimensions, significance, and specific manifestations in their work. This paper argues that in order to improve the digital literacy of foreign language teachers in Chinese universities, it is necessary to clarify: What it is? What aspects of digital literacy can be refined? How do these literacies manifest themselves in the specific work of foreign language teachers? These are the meta-questions of the research on the path or strategies for improving the digital literacy of foreign language teachers in Chinese universities.

Yoram Eshet-Alkalai (2004) proposed five dimensions of digital literacy—photo-visual literacy, reproduction literacy, branching literacy, information literacy, and socio-emotional literacy, bridging the gap between functional tool use and higher-order critical thinking. Based on the five dimensions, this paper delves into the meaning, characteristics, importance, and specific manifestations of digital literacy for foreign language teachers in Chinese universities. Exploring what their digital literacy is, what dimensions it has, and what it can do, this paper aims to provide some theoretical supports and practical cases for the comprehensive understanding and application of digital literacy for college foreign language teachers in China.

Photo-Visual Literacy: Understanding and Utilizing Visual Expressions

Photo-visual literacy refers to the ability to read and utilize visual representations (Eshet-Alkalai, 2004). Driven by the wave of digitization, human beings have fully entered the age of image reading. On social media platforms, image information is generated and disseminated at a rate of millions of images per second; in the field of online education, the proportion of visual teaching resources continues to climb; in academic communication, infographics have become an important way of presenting knowledge. This has not only changed the way of information dissemination, but also reshaped the cognitive mode of human beings. In this context, “thinking visually” is the basic literacy of digital citizens.

For foreign language teachers in Chinese universities, photo-visual literacy has a great impact on teaching effectiveness. According to Mayer's (2005) Cognitive Theory of Multimedia Learning, the appropriate use of image-text combinations can increase learning effectiveness by about 50-75%. It is also related to the cultivation of students' cross-cultural communication skills—in the context of globalization, visual symbols have become an important medium for cross-cultural understanding, and teachers need to guide students to interpret the cultural connotations behind the images. Therefore, the cultivation of photo-visual literacy in the digital era has become an inevitable requirement for the professional development of foreign language teachers in Chinese universities.

Undoubtedly, the development of the digital-intelligent era has further enhanced the requirements of foreign language teachers' photo-visual literacy, which can no longer be satisfied with designing PowerPoint

presentations or utilizing conventional audiovisual materials, but can try various novel teaching methods. For example, in terms of some character descriptions in Chinese classical novels in the course “Appreciation of Translations of Classics”, teachers can use AI drawing websites such as “midjourney” and “nightcafe” to automatically generate character photos based on different English translations, so that the students can tell which translations are more similar to the originals according to pictures, so as to carry out humanistic and traditional translation criticisms by means of a novel digital method. For another example, when explaining Mark Twain’s *The Adventures of Huckleberry Finn* in the course of American Literature, teachers can incorporate Literary Cartography into the teaching practice, guiding students to draw a map of the development of the story of Huck and Jim drifting along the Mississippi River. Through mapping, students can explore the spatial background and plot development of the story more intuitively, so as to better understand the novel’s narratives.

Reproduction Literacy: Creative Utilization of Existing Materials

Reproduction literacy refers to the ability to create meaningful, authentic, and creative works or to give new interpretations to them by integrating existing independent pieces of information (Eshet-Alkalai, 2004). In the age of information technology and digitalization, where the digital ocean is filled with multimedia, fragmented, and independent information, scholars with reproduction literacy usually have good multidimensional and integrative thinking because it helps them create meaningful new combinations from existing information (2004). Of course, this paradoxical literacy of creating and copying inevitably leads to the exploration of ethical norms, i.e., where is the line between originality and plagiarism?

The discipline of foreign languages is essentially a humanistic discipline, and creativity is a core manifestation of humanistic attributes. Therefore, for higher education foreign language teachers, reproduction literacy emerges as a critical professional competency. This literacy challenges teachers to transcend conventional interpretative frameworks in both teaching and research. For example, teachers in courses of literature can guide students to interpret Edgar Allan Poe’s novels from the concept of entropy in physics, or analyze Shakespeare’s plays from the perspective of environmental history. This is precisely a good example of the reproduction literacy, embodying the interdisciplinary knowledge integration of foreign language teachers in Chinese universities.

By the same token, this quality is more directly reflected in the scientific research of foreign language teachers in Chinese universities, which determines whether they can give new meaning to the existing materials (texts or other forms of research objects). The emergence of AI and other tools in the digital age has given humanities research new methods and tools, and digital humanities research is in full swing. To cultivate reproduction literacy, foreign language scholars must engage with emerging technologies such as corpus linguistics, computational text analysis, and AI-assisted data mining. Translation studies scholars, for example, increasingly employ Python-driven stylometric analyses and corpus-based methodologies to quantify linguistic patterns in translated texts. These techniques enable researchers to identify stylistic nuances imperceptible through traditional close reading, thereby applying quantitative rigor to longstanding qualitative debates. Such methodological hybridization—using digital “lenses” to refocus classical inquiries—epitomizes reproduction literacy’s transformative potential in modern scholarship.

Branching Literacy: Knowledge Integration in the Ocean of Information

Branching literacy refers to the ability to construct knowledge from the non-linear navigation of hypermedia

information (Eshet-Alkalai, 2004). Information in the digital age is diverse, fragmented, nonlinear, and hypermedia. These features require us to think in new ways, so college foreign language teachers should learn to use nonlinear information search strategies and construct knowledge from seemingly irrelevant fragmented information in the same way (Xiao, 2006). Modern hypermedia environments offer users a high degree of freedom to navigate through different knowledge domains, but they also pose some problems (Eshet-Alkalai, 2004). A high degree of freedom implies relative disorganization: They need to access information, integrate and construct knowledge from a large number of independent pieces of information, complex wiring, and can get lost in the sea of information if they are not careful.

Because foreign language teaching itself involves multilingual information resources, the variety of information in texts and hypertexts in foreign languages makes branching literacy even more complicated for college foreign language teachers. Good branching literacy ensures that teachers can navigate through the complexity of various fields of knowledge and still have a clear way in their mind. For example, the “Ideological Education in Courses” project in Chinese universities have been encouraging foreign language teachers to strengthen the education of Chinese traditional culture and to introduce Chinese classics and Chinese culture in order to cultivate students’ cultural self-consciousness, cultural self-confidence, and patriotic sentiments. However, the introduction of cultural education poses difficulties for foreign language teachers in Chinese universities. First of all, what should be introduced? The Chinese canon is in such a tremendous number, and there are many kinds of excellent traditional Chinese cultures, so it is necessary to analyze and select which aspects of culture should be introduced and which books should be used as examples. Furthermore, what forms should be introduced? In the digital age, the paths and carriers of Chinese culture dissemination, not limited to translations of canonical books, show the characteristics of multimedia, multi-path, and diversified foreign dissemination. The bilingual comics of Laozi and Zhuangzi, Li Ziqi’s Chinese culture videos on YouTube and other self-media platforms, the series of movies such as *Mulan* and the *Legend of Nezha*, as well as domestic action role-playing game (ARPG) “Black Myth: Wukong”, are some of the hottest IPs that have successfully launched traditional Chinese culture into the foreign lands. In this vast starry sky of Chinese culture, foreign language teachers in Chinese universities have to pick some stars to construct the teaching vein of their own courses, to correlate their own teaching content, to enrich their own teaching ideas. This requires university foreign language teachers to have a good branching literacy, so as to quickly, reasonably, and clearly integrate the fragments of information, and to form their own unique views.

Information Literacy: Evaluation of Information Quality and Validity

In the age of information explosion, traveling in the sea of information, learning to eliminate the false and save the true is a necessary lesson for working and living in the digital environment. In other words, information literacy is not simply a matter of learning how to search for and obtain information, but more importantly, it is a matter of learning to recognize and evaluate the quality and validity of information, and to train critical thinking. Information literacy acts like a filter—it filters information, recognizes incorrect, irrelevant, or biased information, and prevents it from penetrating the learner’s thinking system. People with good information literacy think critically about information and are ready to question it; they do not take information for granted, even if it seems authoritative and valid.

For foreign language teachers in Chinese universities, improving information literacy implies rational screening of pedagogical information during lesson preparation, that is, playing the function of a good filter in

the process. For example, international media such as BBC (Voice of Britain), as a common source of material for English listening teaching, are favored by teachers and students in Chinese universities because of their authentic language and rich content. However, some international media are biased and misleading in their coverage of China, and even deliberately vilify China's image. And some of the inaccurate reports are due to misunderstandings caused by the cultural gap between the East and the West. College students are very susceptible to the influence of the cultural concepts and ideologies of the materials they learn; therefore, when college English teachers use BBC and other international media materials for English listening teaching, they must improve their own information literacy and effectively screen the materials to ensure the objectivity and accuracy of the teaching content, and at the same time, cultivate the students' critical thinking ability and correct values.

Socio-emotional Literacy: Respect for Digital Ethics

Eshet-Alkalai (2004) posited socio-emotional literacy (SEL) as the most sophisticated and multidimensional component of digital literacy, contingent upon an individual's nuanced comprehension of implicit behavioral norms governing cyberspace. While Eshet-Alkalai's framework does not exhaustively delineate specific normative criteria, it establishes a dual analytical lens for conceptualizing SEL (2004): first, the critical evaluation of how others in digital environments influence the self; second, the reflexive regulation of how the self engages with and impacts others in networked societies. The first dimension necessitates navigating the epistemic uncertainties inherent to digital spaces. This involves discerning the authenticity of online identities, assessing the credibility of information sources, and evaluating the ethical implications of others' behaviors on one's digital well-being. Socio-emotionally literate individuals, as Eshet-Alkalai argues, leverage these competencies to mitigate risks (e.g., misinformation, manipulative interactions) while optimizing the communicative affordances of digital platforms (2004). The second dimension emphasizes self-regulation, requiring individuals to critically interrogate their own digital practices. This entails aligning personal conduct with both explicit legal frameworks and implicit sociocultural expectations of online communities, as well as anticipating the broader ethical ramifications of one's digital footprint. For foreign language teachers—who occupy dual roles as knowledge facilitators and cultural mediators—this reflexive dimension carries heightened significance in the digital age. Their pedagogical choices, particularly in curating or disseminating content, inherently shape students' cognitive and ethical frameworks. Thus, cultivating socio-emotional literacy becomes imperative not only for modeling responsible digital citizenship but also for fostering students' capacity to engage critically and ethically in cross-cultural digital discourses.

As the development of AI is in full swing, the socio-emotional literacy of college foreign language teachers is reflected in their reflection on AI ethics. Whether it is their own research and teaching work or guiding students to use AI tools, they need to operate within a reasonable and compliant scope; especially in academic writing, they need to respect academic morality and abide by ethical regulations. AI can help students organize their thoughts and optimize language expression, but teachers must emphasize its limitations to prevent students from relying solely on AI to generate content and losing the ability to think independently. Teachers should warn students through case studies that AI-generated articles lack depth and innovation, and their direct use not only violates academic integrity, but also does not help to improve academic ability. At the same time, teachers need to design assignments that encourage originality, limit the use of AI, and cultivate students' independent thinking and innovation. In addition, teachers themselves need to continuously improve their understanding of AI

technology and socio-emotional literacy to ensure a balance between the application of technology and academic ethics education in teaching, and to help students become new-age talents with both digital literacy and academic integrity.

Conclusion

To summarize, based on Yoram Eshet-Alkalai's five-dimensional framework of digital literacy, this paper systematically explores the meaning and characteristics of digital literacy of foreign language teachers in Chinese universities as well as its specific manifestations in teaching and research, taking practical cases into account. The study shows that photo-visual literacy, reproduction literacy, branching literacy, information literacy, and socio-emotional literacy together constitute the core elements of digital literacy for foreign language teachers in Chinese universities, and these literacies not only help teachers adapt to the digital teaching environment, but also provide a strong support for their research innovation.

In the future, foreign language teachers in Chinese universities should take the initiative to adapt to the new trend of the digital age, organically integrate digital literacy into all aspects of teaching and research, and constantly improve their own digital literacy. At the same time, colleges and universities should also attach great importance to the cultivation of digital literacy of foreign language teachers, establish and improve the relevant mechanisms, and create a favorable environment and conditions for the improvement of teachers' digital literacy. It is believed that under the joint efforts of many parties, the digital literacy of foreign language teachers in Chinese universities will surely step up to a new level, and inject new vitality for promoting the innovative development of their work.

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