

Critical Information Literacy Education Strategies for University Students in the Post-Pandemic Era

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Abstract: The advent of the post-pandemic era, with its risks, uncertainties, and global characteristics, puts forward urgent requirements for the innovation of information literacy education in universities. Critical information literacy has become the top priority of information literacy education. It is urgent to explore diversified and effective critical information literacy education strategies for university students. This paper mainly expounds the educational strategies of critical information literacy, such as original material analysis, reflection, and critical reading.

Keywords: Post-pandemic era; University student; Critical information literacy; Educational strategy

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1. Introduction

With the increasing risks, uncertainties, and global characteristics in the post-pandemic era, critical information literacy education has attracted the attention of higher education's theoretical and practical research. In the face of a large amount of information in a complex society and the internet for the purpose of evaluating information as well as generating new information, more and more people of insight have discovered that only by cultivating information literate people with critical thinking, can they stay sober and rational, think constantly, respond flexibly, grasp the situation through information acquisition, analysis, and inference, as well as analyze the authenticity, accuracy, relevance, legitimacy, and importance of these information, so as to guide their behaviors and apply these information to solving practical problems. Critical information literacy education is extremely important for changing the characteristics of the existing information literacy education in universities, which is stylized and lacks depth as well as innovation.

2. The post-pandemic era brings challenges to information literacy education

Risk is a radiating phenomenon that has no relation with human perception. It answers to various threats and fears brought on by modernity. In risky situations, people rely on their consciousness to determine their existence. This way of thinking differs from that in class situations where consciousness is determined by existence. In other words, the risks faced by people alter their consciousness. Uncertainty intensifies the spread of risk, and "global" is originally a world in which everything is interconnected. Therefore, once a risk event breaks out, the risk increases due to the intensification of the diffusion surface and speed. In the post-pandemic era, people's access to information, cognition, judgment, and evaluation will also change. How to avoid the problems in the process of receiving and processing information, such as when listening to rumors or distinguishing "false news," has posed a new challenge to the current information literacy

education in universities.

Information literacy education is one of the important components of undergraduate education, which has been popularized on a large scale in China since the 1980s. It originated from a course on literature retrieval and later developed a tight connection with computer education. However, it falls within the non-professional general education category and is offered as an elective course or compulsory course. In China, there are now two fundamental modalities of information literacy education in universities ^[1]. Although both information education methods can be used to some extent to complete information literacy training for university students, problems with information literacy training that are ostensibly new to the past will arise due to the new champions league's impact on how students are taught today and in the next five to ten years. Its concept, content, method, and evaluation require a series of innovation and transformation to better meet the requirements of the post-pandemic era.

Information literacy education based on critical thinking, in particular, has been rather weak and needs to be reinforced urgently. Information literacy is people-oriented, and the key to being people-oriented is to respect students' personalities, maximize their potential, as well as cultivate their initiative, autonomy, and creativity. Critical information literacy education clearly has an edge over standard information literacy education in shaping these qualities in students. If innovative educational strategies can be implemented, it will help cultivate critical thinking among students and build on their skills in dealing with problems. In order to achieve effective educational efficiency, critical information literacy education is inseparable from the development and application of educational strategies. However, as far as current theory and practice are concerned, there are several studies on critical information literacy and some discussions on critical information literacy education strategies; additionally, the relevant educational practices are mainly based on the critical information literacy education model applied by foreign university libraries.

3. The connotation of critical information literacy

Scholars both, at home and abroad have conducted pertinent studies on critical information literacy. However, due to the complexity of the connotation of critical information literacy, academicians have looked at and defined it from different perspectives.

Foreign scholars believe that critical information literacy is the application of critical teaching technology in information literacy teaching. Its purpose is to cultivate students in such a way that they are able to put forward thoughtful questions, rather than clear answers, which is as important as the skill to locate, acquire, organize, evaluate, and apply information in research ^[2]. Critical information literacy encourages people to be more aware of the social construction of information and use it to generate new information in a creative and situational way. Therefore, this literacy serves as a weapon against false news. It not only allows people to survive in information overflow, but also creates a society wherein information is used more morally ^[3]. Since information literacy is a set of skills, attitudes, and knowledge needed to recognize when information is required to solve problems or make decisions, it means that it can only function when it is linked with the concept of "critical thinking," which is an ability to distinguish facts from fiction, form opinions on a specific topic, and accept what they may or may not agree with ^[4].

There are three perspectives while discussing the connotation of critical information literacy. First, from the perspective of information literacy, critical literacy is a form of information literacy. The specific behavior requirements include the ability to identify information critically and reasonably ^[5]. Second, from the perspective of critical thinking, since "ideal" critical thinkers are fair and open-minded, they will search for evidence, gather comprehensive information, consider other people's opinions and reasons, limit their assertions beyond the evidence, and flexibly take into consideration of different ideas, so as to correct their

views. Thirdly, it is proposed that critical information literacy is a new concept as a result of the integration of critical thinking and information literacy. Critical information literacy education plays a unique role in the education and teaching of university students. It not only promotes a partnership between librarians and students, so that students can become active participants in their own knowledge construction, but also builds a bridge between librarians and subject teachers ^[6].

This paper uses the organic integration perspective to understand and define critical information literacy, which means that critical information literacy is not a simple combination of critical thinking and information literacy, but a more appropriate and urgent expression for cultivating higher-level information literacy among students in the context of modernity. There are several reasons for the emphasis on this accomplishment today more than in the past. First, the situation of information literacy has changed significantly, and the existing information literacy education has failed to keep up with the needs of this change. In the process of modernization, information risk has become a facet that students have to face on a daily basis. This information risk is most prominently manifested in the fact that it is difficult to judge and validate the authenticity and reliability of all kinds of information while having a large amount of information resources on various new media. Second, many students are lost in the ocean of information and are unable to apply the knowledge they have learned to analyze and discern, indicating the existence of cognitive loopholes in their knowledge system, as exemplified by the lack of critical thinking and critical ability. Third, the current situation of credulous rumors and the inability to analyze shows that students' critical ability and attitude toward information need to be strengthened and improved. Based on the fact that literacy not only attaches importance to critical knowledge, but also emphasizes on critical thinking ability and reflects on the requirements of critical attitude, this paper defines critical information literacy as an information subject who is able to effectively and reasonably identify, find, confirm, and evaluate the information contacted, as well as seek various ways to critically identify and judge the authenticity, reliability, and effectiveness of the information based on all kinds of knowledge (including critical knowledge) and using the skills and methods of critical thinking when faced with massive information in the era of new media; the information subject can finally form his or her own cognitive attitude and position literacy with continuous reflection.

4. Critical information literacy education strategies

4.1. Original data analysis

By critically analyzing a large number of first-hand materials (primary sources), original data analysis enables learners to make key conclusions about the social background of these sources. Analyzing first-hand information is an important strategy to improving critical awareness and proving relevant experiences. Learners can discuss the commonality among the sources they have identified and draw key conclusions. By allowing them to define the content, context, and structure of first-hand materials themselves, they can use these elements to analyze the original materials and meet their practical needs. Although selecting and preparing the main sources of data for analysis consume time, multiple results can be obtained through a single task. With the increasing popularity of online original resource sets, such as those offered by the Digital Public Library of America and its partners, the required time for preparation has been greatly reduced. The benefits of using source data analysis to teach critical information literacy are obvious, because it not only eases the inherent challenges of using critical teaching methods to teach information literacy skills, but also provides full support to critical teaching methods with the modern archive collection theory. First-hand materials often represent the widest possible collection of experiences. These rich experiences are the basis for carrying out critical information literacy education. Although the challenges faced by the critical teaching method can be successfully mitigated by the use of first-hand resources, this

does not imply that they are all-inclusive. The original material analysis method is in some ways an appeal to the academic character of librarians, inspiring them to continue to implement critical original resource analysis, so as to encourage students to reflect more.

4.2. Reflection

Reflection refers to rethinking the past and drawing lessons from it. It is different from “introspection” as the latter focuses on thinking about major events in the past. Its purpose is to sum up lessons and forge ahead, whereas “introspection” focuses on checking one’s own thoughts and behaviors, with the purpose of recognizing shortcomings and mistakes and then discarding the old for the new. As a more advanced category of thinking, reflection requires the subject to have some experience. If these experiences mainly rely on image thinking, empirical thinking, intuitive thinking, and conventional thinking, reflective thinking must rely on logical thinking, theoretical thinking, analytical thinking, divergent thinking, and creative thinking. Reflective thinking can mobilize the initiative of thinking, with a more comprehensive, objective, and in-depth analysis and cognition of things or experiences. It also enables one to look at problems from a new perspective, so as to form independent opinions.

The application of reflection in critical information literacy education is based on the fact that students already have some information retrieval experience. In other words, it is unprofessional for librarians to presume that students know nothing about information search. After all, students today may have good search strategies with many years of online search experience. Allowing students to practice “reflection” is a crucial component of critical information literacy education. Providing time for reflection before and after teaching is just as important as practicing reflection in the classroom. According to a librarian, the incorporation of reflection offers students time to contemplate or ask questions and to consider if the course is valuable to them. It is worth noting that the combination of reflection and dialogue may be an effective teaching method, because critical education or the critical teaching method can only play a role in reshaping itself. Teachers involved in reshaping critical teaching methods or information literacy projects should consider the students they come across, and then reshape their teaching methods with these students through dialogue and reflection.

4.3. Critical reading

Although some have suggested that university students should be taught to switch from physical reading to “reading the internet” in the post-pandemic era, from the perspective of library education practice, even “reading the internet” is still a form of reading. Although the method has changed, and the essence of reading – critical reading – remains the same. Critical reading is a reading activity in which, on the basis of mastering ordinary reading, the subject can critically analyze the authenticity, effectiveness, and value of the text or various information he or she reads based on certain principles or standards and then make evaluations through appropriate judgments. It differs from ordinary reading in the following ways: in ordinary reading, readers tend to accept and concur with the viewpoints of the information provided and show little interest and initiative. Critical reading requires not only an understanding of the material being read and the information that the text contains, but also the reader’s own analysis, judgement, and viewpoint on the information and text being read. In order to determine the credibility of certain information in various texts, it is necessary to employ critical thinking throughout the reading process to make a profound analysis of the former viewpoints of the presenter, including the reading subject himself or herself. This means that in order to engage in effective critical reading, readers must fully express their subjectivity, creativity, and imagination, read extensively from multiple perspectives using various methods, such as preview, commentary, analysis, finding pertinent materials, repeated reading, reflection, and so forth, and then form

an understanding of the information contained in the text in light of their own thinking and judgement.

5. Conclusion

The aforementioned critical information literacy education strategies are not applied exclusively in actual educational practice. Depending on the scenario, a combination of strategies may be used in order to fulfil the educational objectives. No matter what kind of educational strategy is used, the most important thing is that all librarians, who truly care about students' learning in higher education, should learn and improve the critical information literacy theory as academic practitioners, especially by carrying out corresponding educational practices more effectively in combination with the critical thinking spirit contained in Chinese philosophy, so as to better cultivate students who have independent thinking skills, analytical skills, and are able to adapt to future development and changes.

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