Research on adolescents' new media literacy and its cultivation

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Abstract: Emphasizing the cultivation of adolescents' new media literacy and their ability to respond to the new media environment is of great significance to the growth of young people. Adolescents can enhance their learning autonomy, broaden their horizons, and meet their personalized development needs by utilizing new media in their studies and daily lives; however, new media has certain adverse effects on the construction of a systematic knowledge system and the development of reading, learning, thinking, and critical abilities in adolescents. Based on the characteristics of new media, this article analyzes the pros and cons of new media's impact on adolescents and preliminarily discusses the cultivation of adolescents' new media literacy from multiple perspectives, including the nation, society, schools, teachers, parents, and students themselves.

Keywords: Adolescents, New Media Literacy, Capacity Building

1. Introduction

New media are various forms of media that extend beyond the foundations of digital and network technologies, spreading to every corner of the world through platforms such as the internet, mobile phones, and digital media. The continuous renewal of new media has a significant impact on the lives and learning of young people. Adolescents generally refer to the age group of 10 to 19 years old, who are in the best period for developing knowledge systems, thinking, and behavioral habits. Therefore, the cultivation of new media literacy among adolescents is an important topic for basic education workers and researchers today.

2. The concept of new media literacy and its significance for adolescents

2.1. Related concepts of new media literacy

So-called new media literacy refers to the new technologies that audiences should master based on the main features of new media, as well as their abilities to choose, understand, question, evaluate, create, produce, and think critically when facing various types of media information.[3] The cultivation of new media literacy emphasizes the exercise of various abilities in teenagers on the basis of learning and effectively using new media technology.

From the concept of new media literacy, it can be seen that new media literacy is composed of various abilities. The new media literacy that teenagers should possess includes the following aspects. Starting from the educational goals of the basic education stage, first, teenagers should have the basic ability to use new media technology. This ability is the "key" for teenagers to enter the world of new media. Through systematic learning and understanding of media knowledge, teenagers lay a solid foundation for better use of new media in the future. Second, teenagers should have good reading and learning abilities, accumulating and reserving knowledge through self-processing in the ocean of knowledge information, forming their own knowledge system. From the perspective of future development trends, first, facing the huge amount of information in new media, convenient search methods such as Baidu and Google make more and more young people lazy in thinking and receive complex information in a "cursory" manner. Therefore, teenagers should have the ability to interpret new media information and the ability to reprocess information, including understanding, thinking, reasoning, and creating, etc.; second, for the complex and diverse new

media environment, teenagers should also have the ability to critique and think critically about new media information and the ability to evaluate information, etc.

2.2. The research status of the impact of new media on adolescents

In recent years, both domestic and international scholars have conducted a series of studies on the diverse impacts of new media on adolescents. International scholars approach the subject from various perspectives and focus on practical outcomes. Yun [4] researched media literacy education in South Korean middle schools and proposed effective educational plans, suggesting that media literacy education should be integrated with reading education. Kesler, Ted [5] investigated how eighth-grade students in nine public schools cultivate reading abilities in the new media environment, analyzing the development of critical media literacy among adolescents through specific case studies.

Domestic scholars have also conducted a series of studies on the impact of new media on adolescents. Zhao Xia [6] believes that educators should focus on both traditional media reading guidance and new media reading guidance in promoting reading among adolescents in China. Liu Hui [7] analyzed the practical models and effects of new media literacy education for adolescents in China through specific case studies. Zhang Tai Lai [8] summarized the main content of new media literacy education for adolescents, including new media knowledge education, new media value education, new media ability education, and new media ethics education. Tu Tao [9] pointed out that the popularity and application of new media are changing learners, educators, and teaching systems, posing challenges to the theory and practice of future education.

By reviewing the relevant literature of domestic and international scholars, it is found that there are many studies on the various impacts of new media on adolescents, and the perspectives are comprehensive. However, there is a lack of research on how to cultivate new media literacy among adolescents. Therefore, based on existing research, this article attempts to further analyze the impact of new media on adolescents in their learning and daily life, and focuses on discussing how to cultivate new media literacy among adolescents.

2.3. The significance of cultivating adolescents' new media literacy

2.3.1. It is beneficial for adolescents to meet the challenges of the new media environment

As the new media environment continues to permeate public life, new media brings convenience to adolescents' learning and living, but it also brings many new challenges. In terms of thought, the openness of new media can easily cause adolescents to lose themselves in the virtual environment, thereby being misled by bad information and developing ideological deviations; in terms of behavior, adolescents can be induced by bad information to make inappropriate actions, triggering a chain reaction. Cultivating adolescents' new media literacy from multiple angles and aspects enables them not to easily get lost in the new media environment, and to handle problems arising from the use of new media with ease.

2.3.2. It helps adolescents to shape their identity using new media

The new media environment is a "double-edged sword" for the growth of adolescents. Adolescents should know how to play to their strengths and avoid weaknesses in the new media environment, trying to avoid the negative impacts brought by the new media environment while seizing the advantages of new media to "use for their own purposes". New media literacy has become one of the essential comprehensive qualities that adolescents must have today. Strengthening the cultivation of adolescents' new media literacy can help adolescents acquire various abilities they should have, and actively arm themselves, prompting them to be good at using new media technology to shape a positive and upward image, and not to fall behind in the tide of the new era.

3. Characteristics of new media and their impact on adolescents

According to the survey and research of the "40th Statistical Report on Internet Development in China," as shown in Figure 1, by June 2017, the number of teenagers aged 10 to 19 using the internet in China reached 145.725 million. Between 2012 and 2017, there was a significant increase in the number of teenagers aged 10 to 19 in 2012 to 2013. In the following five years, the number of teenage internet users

remained stable, with no significant increase. In 2017, teenage internet users accounted for one-fifth of all internet users, which is a relatively large group.

As can be seen from Figure 1, the internet has significantly penetrated the teenage population. In recent years, the proportion of teenage internet users has remained high, the most important reason being the widespread use of mobile internet devices such as smartphones and other intelligent electronic products. With the continuous expansion of the scale of teenage internet users in China in recent years, the various impacts of new media on teenagers have also become increasingly prominent.
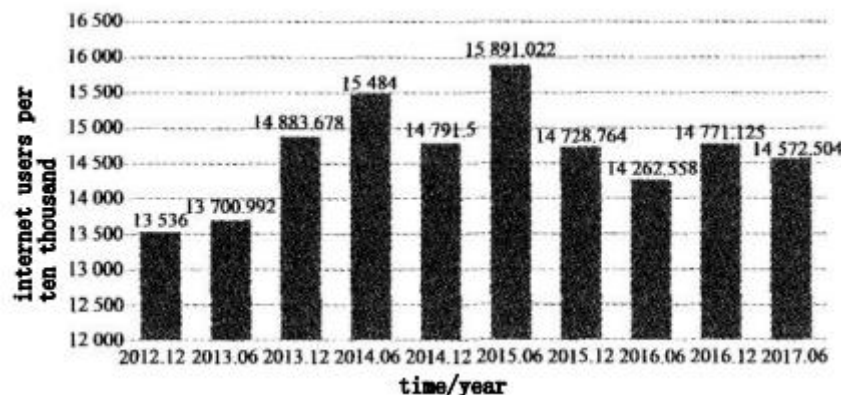

Figure 1: The scale of internet users aged 10 to 19 from December 2012 to June 2017

3.1. Characteristics of new media

New media brings convenience to adolescents, but it also causes many concerns. First of all, the timeliness and openness of new media information dissemination have broken through the limitations of time and space. For example, through live broadcasting, microblogs, podcasts, and other online methods, adolescents can obtain knowledge and information in the first place, meeting their information needs; however, facing the vast amount of information, the convenient retrieval mode can easily make adolescents develop lazy thinking, which is not conducive to the cultivation of thinking abilities. Secondly, the interactivity of new media allows adolescents not only to receive information from new media but also to express their opinions on various platforms such as microblogs, WeChat, blogs, and forums, enabling information to continuously flow between the communicator and the communicated, which can enhance the initiative of adolescents; however, the emergence of various rumors, water armies, and false information on the Internet violates social morals, and adolescents should not participate in such activities. Again, while new media brings motivation to adolescents, it also poses challenges to government regulation. In today's rapid development of new media, adolescents have integrated themselves into the technological torrent, with mixed benefits and drawbacks.

3.2. The positive impact of new media on adolescents

3.2.1. Strengthened the autonomy of adolescents

The traditional way of acquiring knowledge has always been dominant in the education of adolescents, who are accustomed to this learning method and are prone to feelings of fatigue. New media offers new avenues for adolescents to obtain information, enhancing their initiative and autonomy in learning. With its rich resources and flexible methods, adolescents can access information anytime, anywhere through mobile phones, computers, and other terminal devices by browsing websites, microblogs, WeChat, forums, and other means. Under the new media environment, adolescents can better exercise their subjective initiative, and forms such as online teaching systems, remote education, and multimedia classrooms encourage them to acquire knowledge based on their own needs.

3.2.2. Broadened the horizons of adolescents

The rapid development of new media has revolutionized the traditional book-based classroom approach to learning. Although books have always been considered a valuable source of knowledge, the amount of information they contain can no longer meet the needs of adolescents in the information age. The advent of the new media era has compensated for this deficiency. For instance, during the "Two Sessions" in China in 2017, adolescents could not only learn about the events through traditional media but also immerse themselves in the proceedings through new technologies such as VR, live streaming, and 720-degree panoramic views. New media has been beneficial in enhancing adolescents' interest in new things, encouraging them to actively engage with it, and thereby further broadening their horizons.

3.2.3. It has met the personalized needs of adolescents

The typical characteristic of traditional media is the "one-to-many" model. In the new media environment, adolescents can "point-to-point" obtain information based on their own needs and express their "voices," allowing their personalities to be fully displayed and giving them "voice" in the new media environment. By using microblogs, WeChat, forums, and other means to express their opinions on hot events, interacting with other netizens, and exchanging ideas at different levels, adolescents are no longer just passively receiving information but engaging in two-way communication. Adolescents can also independently choose learning platforms to fill in knowledge gaps. The interconnectivity and mobility of information help meet the personalized needs of adolescents, unlock their learning potential, and stimulate their creativity and imagination.

3.3. The negative impact of new media on adolescents

3.3.1. The "fragmented" reading method can easily affect the reading abilities of adolescents

In information dissemination, "fragmentation" has become an important characteristic of new media.[10] Adolescents are as familiar with the current new media environment as adults. While adults' reading methods transition from traditional to new media, adolescents have been in the new media environment from the very beginning of their learning journey. Due to the diversification of ways to acquire knowledge and information, adolescents prefer to use new media for reading and learning, which should not be overlooked in the development of their reading skills. Research indicates that the ability of adolescents to acquire knowledge is closely linked to their reading proficiency; only by improving their reading skills can they better accumulate knowledge and lay a solid foundation. Adolescents are in a critical period for the development of their reading abilities. In the new media environment, the "fragmented" reading method brings convenience but also adverse effects. The fragmentary nature of information makes it difficult for adolescents to concentrate during the reading process, and they only grasp the superficial meaning of the knowledge and information they learn, without delving into its deeper meaning. This is not conducive to the effective absorption of the information they browse, thereby significantly discounting the cultivation of adolescents' reading abilities.

3.3.2. The easy accessibility of information affects the development of adolescents' thinking abilities

New media offers a wide variety of expressive forms and a vast capacity for knowledge and information. Unlike books, which can be dry and abstract, new media is more interesting and vivid, capable of interacting with adolescents through dynamic elements such as audio and video. This interactivity stimulates their enthusiasm and better meets their needs. Compared to traditional media methods, what appeals most to adolescents is the easy accessibility and the ability of new media to store a vast amount of knowledge in real-time, allowing them to "know the world without leaving home." The "Media Dependency Theory" proposed by American scholars DeFleur and Sandra Ball-Rokeach suggests that "the more a person relies on the use of media to satisfy their needs, the more important the role of the media in this person's life, and the greater the influence of the media on this person." New media's role in the learning and daily life of adolescents is becoming increasingly significant. The "fast-food style" of information acquisition brings convenience but also leads to complacency and a dependency on new media. Adolescence is a critical period for the development of thinking abilities, and it is particularly important to cultivate rational, abstract, and logical thinking skills. Adolescents have not yet established a complete knowledge structure system. Quick browsing of information leads to a decline in the enthusiasm for thinking, and superficial reading does not

leave a deep impression on the brain, let alone in-depth thinking. This severely affects the exercise of their thinking abilities and is detrimental to the development of rational, abstract, and logical thinking.

3.3.3. Adolescents' lack of critical thinking skills can lead to cognitive biases

New media, based on digital and network technologies, has extended into various forms of communication. A plethora of information flows freely, characterized by rapid dissemination, interactivity, and specificity. This diversity and richness do not become monotonous and offer adolescents a fresh perspective, providing them with more inspiration and basis for thought. However, adolescents generally lack sufficient cultural heritage, knowledge accumulation, information filtering capabilities, and the ability to integrate and analyze information. They also lack the critical thinking skills to discern the truth of information, making them easily misled. Adolescents often mechanically assume that information retrieved through the internet and mobile phones is correct and accept it wholesale. In reality, some of this information is incorrect, but they lack the ability to discern it, leading to the accumulation of erroneous information as if it were correct. Over time, this incorrect information reserve will affect the construction of their knowledge system and influence their views and understanding of issues or events encountered in future life, study, and work, making them prone to cognitive biases.

4. Approaches to cultivating adolescents' new media literacy

While new media enhances adolescents' autonomy, broadens their horizons, and meets their personalized needs, it also brings many negative impacts. Therefore, society, schools, families, and others should cultivate adolescents' ability to use new media appropriately, help them make rational use of new media, and actively foster and enhance adolescents' new media literacy.

4.1. The state and society: should act as "regulators" and "monitors"

"If the young are strong, the country will be strong" is a saying that emphasizes the importance of nurturing the youth for the future strength and prosperity of a nation. It suggests that the capabilities and characteristics of a nation's youth are directly linked to the power and success of the country itself. This concept is deeply rooted in the belief that the energy, creativity, and potential of young people are vital forces that will shape the destiny of the nation. Therefore, it is imperative for society, schools, and families to equip adolescents with the skills to use new media appropriately, helping them to utilize new media resources sensibly and to actively foster and enhance their new media literacy. This includes creating a supportive environment that encourages critical thinking, ethical behavior online, and the ability to discern credible information, which are all crucial for the healthy development of adolescents in the digital age.

4.2. Schools and teachers: should act as "guiders" and "educators"

Schools are the main front for publicity and education, and they are the primary venues for promoting knowledge about new media and teaching related skills. As educators, teaching and nurturing students are the fundamental responsibilities of teachers. Firstly, schools should actively respond to national policies and place importance on the cultivation of new media literacy among adolescents. For example, schools could offer courses such as "How to Use New Media to Acquire Knowledge," "New Media Literacy Education," "New Media Skills Training," and "Correct Use of New Media Skills"; improve the teacher workforce by enhancing their media literacy. This could include organizing regular teacher training to strengthen their instructional capabilities; disseminating new media knowledge through regular lectures, class meetings, etc., where teachers or students can discuss their understanding of new media and share their gains from new media literacy education; guiding adolescents to correctly use media resources to effectively utilize new media without being misled. Secondly, teachers should focus on building the "basic skills" of adolescents. As beginners in their learning journey, it is especially important for adolescents to establish a framework for their knowledge system and lay a solid theoretical foundation. Therefore, teachers should emphasize the cultivation of reading, learning, critical, and questioning abilities in adolescents, fostering their cognitive abilities regarding knowledge and information from daily learning. Teachers can help adolescents organize the various types of knowledge they acquire through new media, guiding them to learn purposefully and systematically, thereby exercising and improving their thinking and cognitive abilities. For instance, by

incorporating analysis of classic cases in the classroom, allowing adolescents to learn to think actively and explore, and drawing conclusions through discussion; by setting up special topics to enhance their abilities to search for information online and conduct research projects. The cultivation of new media literacy in adolescents cannot be achieved overnight; it requires a long period and gradual infiltration. By combining basic education with new media literacy education, adolescents can have a smoother journey in learning and growth.

4.3. Parents and adolescents themselves: should act as "supervivors" and "Discerners"

In the growth and development of adolescents, family education should not be overlooked. Firstly, parents, as their children's first teachers, influence them through their words and actions. Parents should take the initiative to learn and correctly use new media skills, establish correct values, help children regulate their online behavior, and set a good example. Secondly, parents should play the role of "supervisors." Adolescents generally have weaker self-control, and if parents are slightly negligent in their supervision, children can easily go astray. The minds of adolescents are still immature, and the new media environment is relatively complex for them, requiring parents to work with schools to supervise and correct adolescents. Again, adolescents should consciously determine their own learning directions and choose the knowledge and information provided by new media as much as possible according to their own development directions. They should act with purpose, making their learning goals clearer. The new knowledge and skills obtained from new media should also be combined with their daily reading, classroom learning, and life practice, integrating and systematizing the knowledge obtained by chance, and becoming a master of knowledge rather than a media parrot. On the one hand, adolescents should cultivate their ability to acquire knowledge. On the other hand, they should actively learn basic media theory and knowledge and skills related to new media to improve their critical thinking ability to distinguish the truth of knowledge spread in the complex online environment, and cultivate the ability to use media resources for their own benefit.

5. Conclusion

New media has brought new opportunities and challenges to the learning and life of adolescents. It has both positive and negative impacts on them. Poor reading skills among adolescents lead to inadequate absorption of the information and knowledge they receive; the convenience and speed of obtaining information through new media can easily lead to a dependency that is not conducive to the improvement of their thinking abilities; and the lack of critical thinking skills among adolescents makes it difficult for them to discern the authenticity of the information they access, which can lead to cognitive biases. Therefore, it is particularly important to cultivate good new media literacy among adolescents to address these issues. The collective efforts of multiple parties aim to create a positive new media environment for adolescents, to foster their new media literacy, and to strengthen their awareness of self-capability development, helping adolescents to grow better.

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