Education redefined in digital society

EDUCATION

By ZOU HONGJUN

The report to the 20th CPC National Congress called for invigorating China through science and education and promoting the digitalization of education. As a long-term intellectual cause, education is an important strategic pillar bolstering China's modernization drive. The digitalization of education is the inevitable path China must follow to build a strong, inclusive education system.

The digitalization of education has long been regarded as merely a matter of practical and technological adaptation, while many problems that require preconditions and are fundamental have been overlooked. In the digital age, it is necessary to theoretically examine the value of digitalization to education as well as its possibilities, thereby better serving educational digitalization and building a strong education system.

Five-dimensional shift

At present, digital technology is inspiring a profound social revolution. Emerging technologies such as quantum computation, gene editing, and artificial intelligence are giving rise to extensive and profound societal changes. However, certain high-risk biological and intelligent technologies may be leading humanity toward an uncertain future. Meanwhile, problems such as digital poverty and the digital divide still loom large. While benefiting greatly from technology, education also faces many risks.

Common sentiment is that education is undergoing a major transition, but the specifics remain elusive and aren't fully understood. In the digital age, the subject, knowledge, mediums, and the time and space for education are worth serious thought.

In a digital society, man—as a subject—has dual identities. On one hand, in the words of the great philosopher Friedrich Nietzsche, one must be "faithful to the earth." On the other hand, we are now freely able to wander within the simulacra, and even become subjective "souls" in digital space to some extent.

In the face of technological reconstruction of such existential conditions, education must respond to requirements raised by diverse human existences in the digital era, which implies diversity in education.

Modern technology has profoundly influenced the physiological and even psychological development of children today. Traditional views on children have become obsolete and require updating in order to better understand and prepare youth for the digital age.

Rapidly evolving technologies, especially in the field of artificial intelligence, likewise pose serious threats to teachers' traditional occupational positions. The functions and roles of teachers in the age of intelligence warrant serious consideration. The unique advantages of human teachers over their digital counterparts must be carefully delineated and properly leveraged if they are to remain relevant in the classroom.

It is often said that knowledge is no longer a problem in the digital age with information at our fingertips. Upon careful consideration, we find the actual state of knowledge to be sorely inadequate. With technological rationality's subversion of universal knowledge, prevailing systems of knowledge are gradually losing credibility and trust, while emerging systems are proving inadequate to cope with an ever-changing world.

Between belief and doubt, knowledge is often no longer trustworthy, useable, or likable, and has even been reduced to the role of entertainment. Swept up by huge waves of capital, intellectuals' responsibility for and faith in knowledge are weakening. As knowledge struggles to meet the commitment to survival in human society, what can education do? In order to effectively turn around the undesirable knowledge situation and remove universal doubts about education, we must reconstruct the integrity of our knowledge, resist prevailing orientations towards capitalization and entertainment, and return to concrete knowledge production.

In the digital age, everyone is a medium. And almost everyone has become a node in the web of existence woven by digital technologies. To some degree, those who have difficulty entering the cyber survival interface will be left behind in digital society.

Think about those who were unable to use smartphones and

A pupil takes class online on Nov. 10 in Chaoyang District, Beijing. In the digital age, the subject, knowledge, mediums, time, and space for education are worth serious thought. Photo: Chen Mirong/CSST

access their health kit [an application which provides a personalized health status based on geolocation, vaccination status, and nucleic acid test results] during the COVID-19 pandemic. These individuals may have a strong feeling of isolation. Education should therefore address more contemporary aspects of human development. In other words, cultivating digital literacy should be a key task in contemporary education. Digital literacy refers to not only sufficient operational competency, but also to a comprehensive regulatory framework that integrates knowledge and ethics. Digital ethics is particularly crucial to the present and the future.

In digital society, time has been fragmented and partially reorganized. If time, in a pre-modern society, is considered "linear," then in a digital society it is more appropriately conceptualized as "a flat circle" using Nietzche's terminology. In other words, time is replaced by reason in its physical dimension. We can willfully fast-forward or rewind time, and even pause it in some sense.

How is this mechanism of time significant to education? It inspires us to fully consider the complexity of education time. In education, time never simply eclipses. Instead, it is marked by the flow and convergence of the lives of teachers and students. It not only represents the sum of educators' experiences, as they enter the educational field as beings, but also incorporates the existing life experiences of those being educated, which always unfold creatively. Thus, education must value presence in each immediate moment of time. It should ensure that all people will gain happiness at the very moment, instead of forsaking all possibilities for a distant future.

In digital society, space is ever more extensively and rapidly reflected in the expansion of virtual space created by digital interfaces. The "disembedding" mechanism of modernity, as termed by renowned British sociologist Anthony Giddens, has been reshaped after Greek American computer scientist Nicholas Negroponti declared that humanity is "being digital." If modernity means time shrinks space, then digital society suggests space is retaliating against time. Space has obtained the same existential status as time.

Modern education technology has brought students out of traditional classrooms, leading them to an education space where the real and the virtual coexist. If time permits, education space is never a problem. Famed Austrian philosopher and social critic Ivan Illich's theory of "deschooling society" is comprehensively and profoundly embodied in digital society. Hence education must update the traditional concept of space, and value the construction of a digital space, reestablishing the historical status of family education and essentially "fastening the first button" of a child's life, thereby enabling a wonderful world of coexistence and intelligence.

At the same time, we should also note that the content of education is being rewritten in digital society. The traditional five areas of education, namely: morality, intelligence, physical fitness, labor, and aesthetics, should be updated with time. Today, moral education should focus on nurturing traditional virtues, while fostering digital ethics. Intellectual education should not only inherit the tradition of education through knowledge transferal, but also pay attention to existential wisdom beyond knowledge. Physical education should not merely aim for health but integrate health and beauty as part of a rich body. In aesthetic education, attention to both the modernization of traditional aesthetic views, and technical practices of digital aesthetics

is needed. With regard to labor, students should be educated to expand their competencies through conventional labor, while also engaging in digital labor.

Prospects of education

In 2019, British novelist and screenwriter Ian McEwan published the novel *Machines Like Me*. The plot revolves around an android named Adam, who is practically human. It can talk, write poetry, and work. It is kind-hearted, craves love, and has human emotions and self-consciousness. Within the paradigm of human-generated ethical rules, Adam can solve almost all knowledge problems for humanity, but it lacks confidence in front of the young boy Mark [because Adam, like other robots, has not been or perhaps cannot be programmed with children's feature of learning by play].

In March 2021, *Klara and the Sun*, a novel by Kazuo Ishiguro, Japanese-British novelist, short-story writer, and 2017 Nobel Prize Laureate in Literature, was printed. Ishiguro envisioned an education blueprint in which children of rich families don't have to go to school; they receive virtual tutoring from teachers via laptop-like devices that Ishiguro called "oblongs;" and classmates interacted physically through regular social meetings. This approach coincides with my conception of future education in digital society.

In a way, our understanding of education is never realistic, but ideal. From Plato's *The Republic* to *Klara and the Sun*, people are always imagining possible education scenarios in certain realities. Although all possibilities are at risk of being engulfed by ancient Greek pre-Socratic philosopher Heraclitus's "flux" of digital society before we think about them thoroughly, it is always fortunate to have the right, and the opportunity, to imagine possibilities.

The imagination of possibilities for education requires us to fully understand contemporary society and the realistic nature of education, and on this basis, think prudently and dialectically about the future and its possibilities for education.

Furthermore, whatever opportunities and challenges education faces in our digital society, its mission of cultivating virtues should remain unchanged, and its eternal intrinsic value should be to help the educated mature and succeed.

Education researchers today must understand the past, make sense of the present, and plan for the future through dialectics of the changed and the unchanged, and of humanity and technology. In the meantime, we should consistently keep a highly open and critical mind to all possible prospects.

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