全球智慧教育大会
Global Smart Education Conference

2022

Beijing·China 18-20 August

GLOBAL SMART
EDUCATION CONFERENCE

Intelligent Technology

Digital Transformation in Education

Organizer | 北京师范大学
BEIJING NORMAL UNIVERSITY

Co-organizer | unesco
Institute IITE
по информационным
технологиям в образовании

Hosts | 北京师范大学智慧学习研究院
Smart Learning Institute of Beijing Normal University

北京师范大学教育学部
FACULTY OF EDUCATION

中国教育与社会发展研究院
CHINA INSTITUTE OF EDUCATION AND
SOCIAL DEVELOPMENT

中国基础教育质量监测协同创新中心
Collaborative Innovation Center of Assessment for
Basic Education Quality

CIT National Engineering Research Center
of Cyberlearning and Intelligent Technology

CONFERENCE INTRODUCTION

Intelligent technologies, such as Artificial Intelligence, Big Data, and VR/AR/MR, are important driving forces leading a new round of scientific and technological revolution. These technologies are profoundly changing the way we live, work, think, and even accelerating social transformation and deepening educational reform.

Affected by the ongoing pandemic wave, global education is becoming more uncertain and fragile than ever. Numerous efforts have emerged to respond to the challenges of COVID-19 at the international level. As the 2030 deadlines are fast approaching, the United Nations intend to convene a Transforming Education Summit in the coming September to mobilize action, ambition, solidarity and solutions with a view to transforming education before 2030. In tandem, many countries and organizations rolled out digital development strategies at the national level to promote a comprehensive digital transformation in education. UNESCO released the *Beijing Consensus* at the first edition of the International Conference on Artificial Intelligence and Education. The *Beijing Consensus* recommends making appropriate policies that aim at systematic integration of AI and education to innovate education, teaching and learning. According to the report of *Digital Strategies in Education across OECD Countries*, a total of 17 member countries released digital education-related strategies between 2015 and 2019. Furthermore, *the Digital Education Action Plan (2021-2027)* issued by the European Union emphasizes two priority areas, namely, "Fostering the development of a high-performing digital education ecosystem" and "Enhancing digital skills and competences for the digital transformation".

The Chinese government also proposed a series of strategies and policies aimed at further promoting the systematic integration of intelligent technology and education. These include China's Education Modernization 2035 Plan, The New Generation Artificial Intelligence Development Plan, Education Informatization 2.0 Action Plan. In addition, the Ministry of Education of the People's Republic of China also stressed the importance of implementing the strategic action of education digitalization as well as accelerating the process of digital transformation and intelligent upgrade for education.

Digital transformation in the domain of education is based on digitization and digitalization, and is committed to 1) consolidating digital foundation; 2) building smart learning environments; 3) promoting co-creation and co-sharing of quality digital educational resources; 4) exploring personalized models for cultivating students and training teachers; 5) improving the digital literacy and digital skills of teachers and students; and 6) enhancing digital awareness, thinking and capabilities at digital transformation stage. Smart education can be considered as the educational behaviours provided by schools, regions, or governments, with the characteristics of high learning experience, learning content adaptation, and teaching efficiency. In smart education, modern science and technologies are used to provide diversified supports and on-demand services for students, teachers and parents, etc., the data of participants and learning and teaching processes are recorded and used to promote the quality and equity of education. From this perspective, smart education shall have great potential to be a breakthrough that integrates intelligent technologies with education for the future.

Beijing Normal University (BNU) is a comprehensive and research-intensive university with its strength in teacher education, educational science, and basic disciplines of liberal arts and sciences. BNU has taken the lead in the theoretical innovation and practical exploration of

smart education. It has put forward policy suggestions on developing smart education and promoting the reform of the education system. It also serves as the secretariat of the expert group of the Smart Education Pilot Zones. During the pandemic, the Smart Learning Institute (SLI) of Beijing Normal University and the National Engineering Research Centre of Cyberlearning and Intelligent Technology (CIT) have been seeking educational solutions under special circumstances. Specifically, they worked with UNESCO, finalizing and publishing a series of handbooks and guidance which comprise Ensuring Effective Distance Learning under COVID-19 School Closures: Guidance for Teachers as well as AI and Education: Guidance for Policy-makers. A variety of learning strategies and practical experience adopted in China have been collected in these publications, which provide institutions with feasible recommendations for minimalizing disruption and ensuring continuity of course delivery during the pandemic.

UNESCO Institute for Information Technologies in Education (UNESCO IITE), as the co-organizer of the conference, is the only UNESCO Category One Institute that holds a global mandate for ICT in education. In 2020, IITE in cooperation with The Commonwealth of Learning (COL), International Society for Technology in Education (ISTE), National Research University - Higher School of Economics (HSE) and Beijing Normal University launched the Joint Project of Rethinking and Redesigning National Smart Education Strategy to explore the solution of infusing technology into education. IITE also worked together with SLI of Beijing Normal University, releasing a Handbook on Facilitating Flexible Learning During Educational Disruption: The Chinese Experience in Maintaining Undisrupted Learning in COVID-19 Outbreak. This handbook has been translated into several languages and was widely disseminated around the world.

Since 2016, BNU, in conjunction with international organizations and universities worldwide, has held four consecutive US-China Smart

Education Conferences (UCSEC) and two Global Smart Education (GSE) Conferences. Thousands of experts and scholars in the field of education and technology from more than 50 countries and international organizations, including UNESCO and OECD attended the meeting. These conferences held discussions on frontier fields and hot issues such as K-12 Education, Higher Education, Vocational Education, Transforming Education through Intelligent Technology, AI and Future Education, Smart Learning and Futures of Education. At the conferences, a series of projects and research results such as the Horizon Project Regional Report, the White Paper on Smart Education Pilot Zones Construction, the Joint Project of Rethinking and Redesigning National Smart Education Strategy, as well as the project of e-Library for Teachers were released. The Global Competition on Design for Future Education also had a launch session at the conferences.

Global Smart Education Conference 2022

The Global Smart Education Conference 2022 will be held in Beijing from 18th to 20th of August. The theme of this conference is Intelligent Technology and Digital Transformation in Education. GSE 2022 will take a hybrid mode which includes online and onsite sessions. International research outcomes and related sets of cases will be released during the event. Meanwhile, we will build a metaverse venue to improve audiences' experience of communication and interaction and also to display our innovative solutions for digital education.

Provisional Agenda

Conference Agenda (Onsite and Online)

[China Standard Time (CST), UTC+8]

Date	Time	Agenda	Venue
18th August 2022 (Thursday)	14:30-18:00	Opening Ceremony & Forum on Digital Transformation for Smart Education	Beijing Normal University, China
	19:00-23:00	Forum on Teacher Education in Metaverse World	
	19:00-22:00	Forum on Promoting Digital Literacy in Smart Learning Environment	University of Belgrade, Serbia University of Piraeus, Greece
19th August 2022 (Friday)	9:00-18:00	Forum on the New Ecology of Regional Smart Education	Beijing Normal University, China
	9:00-12:00	Teacher Forum on Technology Empowered Teaching Innovation	
	14:30-18:00	Student Forum on Learning Crisis and Futures of Education	
	14:30-20:30	The 5th International Conference on Smart Learning Environments	Hangzhou Normal University, China La Rioja International University, Spain Near East University, Cyprus
	19:00-22:00	Forum on AI-driven Open Education	ALECSO
	19:00-23:00	Forum on Smart Village and Transformation of Rural Education	Beijing Normal University, China
20th August 2022 (Saturday)	9:00-12:00	Forum on Digital Governance of Education	
		Forum on Positive Education in the Intelligent Era	Longhua, Shenzhen
	14:30-18:30	Forum on Leveraging Intelligent Technology for Education Innovation & Closing Ceremony	Beijing Normal University, China

HIGHLIGHT MOMENT

REMARKABLE VIEWS

Stefania Giannini
UNESCO Assistant Director-General for Education

" The design and use of technology should be in the service of people - to enhance human capacity, protect human rights, and ensure sustainable development. Going forward, inclusion must be the yardstick of every policy. "

Sobhi Tawil
Director of the Future of Learning and Innovation Team at UNESCO

" We are now living in a world with increasing complexity and uncertainty. With the advance of emerging technologies, such as Artificial Intelligence, automation is expected to fully replace some jobs, and it will certainly change many other jobs. "

Tao Zhan
Director of UNESCO Institute for Information Technologies in Education(UNESCOIITE)

" The COVID-19 pandemic changed our teaching and learning just overnight. The importance for developing smart and digital education has been recognized. Therefore, in an effort to make education smarter, we should pay attention to critical issues, including the innovation process of education, education for all as well as smart education. "

Muhammad Yunus
Nobel Prize Laureate

" Education develops students' creative thinking. Creative thinking, in turn, enables students to create a better world. The future will become safer, fairer and more peaceful . "

Joseph South
Chief Learning Officer of the International Society for Technology in Education(ISTE), Former Director of the Office of Educational Technology at the U.S. Department of Education

" When online education deeply integrates with in-person education, passive learning is going to be switched to active learning under the influence of the flexible learning system equipping learners with the competence of self-study. This is a fundamental motivation for future education. "

Eugene G.Kowch
President of the American Association for Educational Communication and Technology

" Distance learning and open educational resources that adapt to self-study can provide learning opportunities for those individuals who have no access to campuses, especially for girls, women and disabled in impoverished regions. "

Qinping Zhao
Academician of Chinese Academy of Engineering

"As an important supporting technology for smart education, virtual reality is immersive, interactive, imaginative and intelligent. It has the potential to revolutionize existing technologies and generate new teaching methods and modes. VR and Al may become ultimate education technologies, which will have a profound impact on future education. "

Yunhe Pan
Academician of Chinese Academy of Engineering

" The world is moving from binary space to the new ternary space. This is the driving force that moves Al toward a 2.0 stage. Binary space refers to the physical space and social space. With the advent of the big data era, the world has entered the ternary space, which means the new information space has emerged, compared with the previous binary space. "

Hequan Wu
Academician of Chinese Academy of Engineering

" 5G technology has promoted the upgrades of high-definition video and VR/AR/MR. It realized not only the low-delay live-streaming for teacher-student real-time interaction but diverse functions including virtual teachers and teacher assistants. These made home-schooling and personalized learning for students possible during the pandemic, promoting the innovation of talent cultivation mode. "

Jun Zhang
Academician of Chinese Academy of Engineering

" With the concepts of intelligence and the Internet, the 'human-machine-things-environment' relationship can be reshaped based on the technical framework of the Internet of Intelligences. Simultaneously, the barriers between space, time and knowledge can be broken due to the utilization of the 'intelligent classrooms', forming the 'five-dimensional education' that comprises physics, society, information as well as time and knowledge. The 'five-dimensional education' will promote the formation of educational relations of production featured with human-oriented concept and also contribute to the transformation of educational productivity in the new era. "

Yaonan Wang
Academician of Chinese Academy of Engineering

" The integration and innovation of the emerging information technologies, represented by artificial intelligence, and other technologies are powerful tools for building a smart society. "

Wushouer Silamu
Academician of Chinese Academy of Engineering

" In the future, the intelligent education will be reformed in terms of teacher resources and teaching resources. That is, the research result is based on the accumulation of scene data and high-quality teaching methods. Image recognition, speech recognition and adaptive technology can be used to match relevant teaching content intelligently, create artificial intelligence courses, and improve high-quality teacher resources. "

Zhanyuan Du

Then Vice-Minister of the Ministry of Education, China

" Increasing efforts to promote the deep integration of information technologies and education and reforming the education system under the framework of traditional industrial society are the necessary ways to achieve the development goal of the Education Modernization 2030 Plan. "

Qi Dong

President of Beijing Normal University

" The traditional educational assessment system can no longer meet the needs of educational development in the intelligence era. Artificial Intelligence, Brain Science, VR and 5G have provided huge opportunities for establishing a scientific educational assessment system. This will probably have tremendous impacts on K-12 education while also promote equity in education and facilitate personalized development for students. "

Chaozi Lei

Director of the Department of Science, Technology and Informatization of the Ministry of Education, China

" Education informatization in the new era is currently moving from 1.0 to 2.0 stage.Education Informatization 2.0 aims to promote the upgrading of education informatization on the basis of the 'Connect-SCS and Two Platforms' in the 1.0 stage to comprehensively enhance its development level, making China lead the way in the field of education informatization worldwide. "

Binglin Zhong

Professor of Beijing Normal University

" Apart from providing talent and intellectual support for the information technology revolution, schools should also actively adapt to changes in the education and the labor market brought by information technology innovation to seize opportunities, meet challenges and make collaborative innovation. "

Changwei Qin

Secretary-General National Commission of the Peoples Republic of China for UNESCO

" AI-supported online education has greatly reduced the loss of education during the pandemic, and unprecedented large-scale online teaching innovation cases have opened a door to the exploration of the futures of education. Online education and AI-support education applications have made it possible to share high-quality educational resources on a global scale, providing new solutions to global educational problems. "

Zhiguang Shan

Director of the Department of Informatization and Industry Development of the State Information Center, China

" Compared with improving the facilities and multimedia education supported by technology, it is more important to develop Smart Education with educational wisdom and seek solutions to the incompatibility and incoordination between educational concepts, thinking and methods. "

MEDIA PARTNERS