



世界数字教育联盟  
WORLD DIGITAL EDUCATION  
ALLIANCE

Newsletter

2025

# WORLD DIGITAL EDUCATION CONFERENCE

2025.5.14 - 5.16



# Foreword

## Background

The digital technology has become the leading force of the world's scientific and technological revolution as well as industrial transformation in today's era, which increasingly integrates into various areas and whole process of the economic and social development, profoundly changing production methods, lifestyles, and social governance, and brings new challenges and opportunities to education. The advantages digital education brings forth, such as equity, inclusiveness and openness, provide new paths for education to better serve modernization and foster the holistic development of individuals.

The United Nations, along with countries worldwide and international organizations, are taking active measures in advancing digital transformation in education. The United Nations Transforming Education Summit has identified digital transformation in education as one of the five Thematic Action Tracks, emphasizing that the digital revolution should benefit all learners. In September 2024, the United Nations Summit of the Future released the Global Digital Compact, highlighting the importance of digital skills and lifelong learning opportunities for digital education. It proposed to establish and support national digital skills strategies, optimize teacher training and education curricula and support quality and inclusive education and research on science, technology, engineering and mathematics. Many countries have developed digital education development strategies, injecting new impetus into promoting the innovative integration of digital technology and education, improving learning quality, promoting educational inclusion, and addressing global challenges.

In this context, the Ministry of Education of China hosted the World Digital Education Conference in 2023 and 2024, producing a series of practical outcomes including the establishment of the World Digital Education Alliance, and the Smart Education Platform, the Global Digital Education Development Index (GDEI), etc. During the 2024 Conference, representatives from more than 70 countries and regions gathered in Shanghai to share their latest policies and best practices on digital education transformation.

## Objectives and Theme

The conference, which will embody the characteristics of pioneering, globality, and inclusiveness, aims to join hands with governments, universities, primary and secondary schools, relevant international organizations and non-governmental organizations, enterprises, and other stakeholders to explore the development of digital education in all process of "Teaching—Learning—Management—Assessment—Research", promoting the achievement of the United Nations Sustainable Development Goals.

With the theme of "**Education Development and Transformation: The Era of Intelligence**", the 2025 WDEC aims to respond to the United Nations' initiatives on global education transformation and to call for joint efforts to promote the development and transformation of education in the era of intelligence.

## Organizers

The Ministry of Education of the People's Republic of China

The Chinese National Commission for UNESCO

People's Government of Hubei Province



## Participants

- The conference plans to invite representatives including:
- State leaders and education ministers
- Ambassadors to China and diplomats
- Heads and representatives of UN agencies
- Heads and representatives of international organizations and non-governmental organizations
- Representatives of digital technology experts and international digital enterprises
- Representatives of relevant ministries and departments
- Presidents and scholars from universities
- Principals and teachers from TVET schools
- Principals and teachers from primary and secondary schools



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# AGENDA

## DAY1

May 14th/Wednesday

🕒 All Day

Guest Check-in

🕒 Morning

World Digital Education Alliance  
General Assembly Meeting

🕒 Morning

School Visits

- Primary/Secondary School
- TVET Education School
- Higher Education School
- Lifelong Education School

## DAY2

May 15th/Thursday

## DAY3

May 16th/Friday

### Opening Ceremony

🕒 16:00-16:05

Opening Video

🕒 16:05-16:15

Demonstration of Future Classes,  
Schools and Teachers with Digital  
Technologies

🕒 16:15-16:30

Remarks by State Leader

🕒 16:30-16:50

Addresses

- Hang Chuon Naron, Deputy Prime Minister and Minister of Education, Youth and Sport of Cambodia
- Stephen Morgan, Parliamentary Under-Secretary of State of United Kingdom
- Daniel Rojas Medellín, Minister of Education of Colombia

🕒 16:50-16:55

Promotional Video

🕒 16:55-17:00

Remarks

Wang Zhonglin, Secretary of the CPC  
Hubei Provincial Committee

🕒 17:00-17:20

Keynote Speech

Huai Jinpeng, Minister of Education of  
the P.R.C.

# AGENDA

## DAY1

May 14th/Wednesday

## DAY2

May 15th/Thursday

## DAY3

May 16th/Friday

### Opening Ceremony

🕒 9:00-10:00

#### Speeches

- Aleksandre Tsuladze, Minister of Education, Science and Youth of Georgia
- Thomas J. Sargent, Nobel Laureate in Economics and Professor of New York University
- John Edward Hopcroft, Turing Award Laureate and Professor Emeritus of Cornell University
- Wu Jianping, Academician of the Chinese Academy of Engineering and Professor of Tsinghua University
- Jacques Frémont, President and Vice-Chancellor of the University of Ottawa
- Zhang Pingwen, Academician of the Chinese Academy of Sciences and President of Wuhan University
- Peng Baobei, Principal of Wuhan Erqiao Middle School
- Jonathan Austin, New Zealand Ambassador to the P.R.C.

🕒 10:15-11:15

#### High-level Dialogue on Digital Education

- Moderator: You Zheng, Academician of the Chinese Academy of Engineering and President of Huazhong University of Science and Technology
- Pia Rebello Britto, Global Director of Education and Adolescent Development, UNICEF
- Rodrigo Martins, President of the European Academy of Sciences and Full Professor of New University of Lisbon
- Joaquín Goyache Goñi, Rector of Complutense University of Madrid
- Song Yonghua, Rector of the University of Macau
- Erick M. Carreira, Member of the National Academy of Sciences and Full Professor of ETH Zurich

# AGENDA

## DAY1

May 14th/Wednesday

## DAY2

May 15th/Thursday

## DAY3

May 16th/Friday

### Opening Ceremony

🕒 9:30-10:10

#### Speeches

- Wang Xingxing, Founder of Unitree Robotics
- Marcelo Bregagnoli, Deputy Minister of Education of Brazil
- Lisa Zamberlan, Pro Vice-Chancellor International of the University of New South Wales
- Buti Manamela, Vice Minister of Higher Education and Training of South Africa
- Slim Khalbous, Rector of the Agence Universitaire de la Francophonie

🕒 10:50-11:00

#### Handover Ceremony

- Wu Yan, Vice Minister of Education of the P.R.C.
- Zhuge Yujie, Deputy Secretary of the CPC Hubei Provincial Committee
- Lu Shan, Vice Governor of the Zhejiang Provincial People's Government

🕒 10:10-10:50

#### Release of Conference Deliverables

- White Paper on China's Smart Education
- Launch of China's National Strategic Action For Digital Education 2.0 Proposal for the Establishment of an International Digital Education Standards Framework and Large Model for Education-Overall Reference Framework Alliance Standard
- Global Digital Education Development Index 2025
- Digital Education Fronts
- Wuhan Initiative on Digital Education Cooperation

🕒 11:00-11:05

#### Closing Remarks

Huai Jinpeng, Minister of Education of the P.R.C.



# Executive Summary

The 2025 World Digital Education Conference was held at the Wuhan International Expo Center from May 14 to 16, 2025, jointly organized by the Ministry of Education of the People's Republic of China (MOE), the Chinese National Commission for UNESCO, and the Hubei Provincial People's Government. Under the theme "Education Development and Transformation: The Era of Intelligence," the conference brought together over 1,000 representatives from more than 40 countries and international organizations.

Chinese Vice Premier Ding Xuexiang attended alongside Hang Chuon Naron, Deputy Prime Minister and Minister of Education, Youth and Sport of Cambodia, Huai Jinpeng, Minister of Education of the P.R.C., Parliamentary Under-Secretary of State of United Kingdom, Stephen Morgan, Daniel Rojas Medellín, Minister of Education of Colombia, as well as renowned scholars and educators from institutions worldwide.

Participants engaged in in-depth discussions on technological frontiers, policy mechanisms, application scaling, and digital ethics, exploring innovative approaches to digital education in teaching, learning, management, assessment, and research—responding to the United Nations' Call for Transforming Education (2022).

At this year's conference, an immersive exhibition themed "Intelligence Without Borders, Education in Symbiosis" will highlight digital teaching tools and policy achievements across six core areas: basic education, vocational training, higher education, lifelong learning, international exchange, and future learning. Cutting-edge technologies such as AI-powered tutors, digital twin classrooms, and immersive virtual campuses will be on display.

The new generation of information technologies, represented by artificial intelligence and embodied robotics, is reshaping the division of labor in society and redefining education. These technologies are driving revolutionary changes in how knowledge is acquired and transmitted, as well as in the relationship between teaching and learning. "What should education be in the age of intelligence?" has become a critical question facing countries around the world.

## 1. Leveraging Artificial Intelligence to Advance the "3 News" and the "4 Futures"

Eliminating educational barriers, promoting equal access to learning opportunities, and ensuring sustainable development are shared global priorities. In response to the transformative impact of artificial intelligence on education and the challenges of global governance, international organizations are working with countries to shape more resilient and inclusive education systems.

The conference cited reports from UNESCO and the Organisation for Economic Co-operation and Development (OECD), which recommend that countries adopt context-specific strategies based on their development stage, using AI as a tool to build inclusive, adaptive, and sustainable educational ecosystems. In South America and Africa, digital resources help reduce costs and expand access for underserved communities. Meanwhile, in North America, Europe, and parts of Asia, AI is driving the expansion of personalized learning.

The World Bank urges countries to restructure digital education frameworks across four dimensions—policy, collaboration, technology, and implementation—and to enhance both "hard skills" (e.g., AI technologies) and "soft skills" (e.g., AI literacy). It advocates forward-looking policy design, cross-sector partnerships, and inclusive innovation to build a robust intelligent education ecosystem.

At the conference, Minister Huai Jinpeng introduced China's "3N" framework (New Stage, New Standards, New Pathways) and "4 Futures" (Future Teachers, Future Classrooms, Future Schools, Future Learning Hubs) as a vision for inclusive and adaptive education.

United Nations Secretary-General António Guterres, in his message for the 2025 International Day of Education, emphasized the theme "Artificial Intelligence and Education." He

underscored education as a fundamental human right and a foundation for individual potential and societal prosperity. He called for AI integration that supports learners and teachers while preserving human agency, creativity, and critical thinking.

## 2. Building a High-Level, Internationally Open and Collaborative System for Digital Education

The principle of mutual benefit and win-win cooperation lies at the heart of multilateral collaboration and global governance in education in the age of intelligence, reflecting a shared vision for the future of education. Stefania Giannini, UNESCO Assistant Director-General for Education, noted that the rise of artificial intelligence has significantly accelerated educational transformation and called for greater global consensus to advance AI in education and achieve the UN 2030 Sustainable Development Goals.

Rodrigo Martins, President of the European Academy of Sciences and Professor at NOVA University Lisbon, underscored the importance of transnational collaboration, stating, "If you want to go fast, go alone; if you want to go far, go together." He advocated for the creation of a borderless technological cooperation framework.

Wu Yan, Vice Minister of Education of China, emphasized the need to build a "Global Smart

Education Community," advocating for the co-construction and sharing of emerging technologies, high-quality platforms, and digital resources worldwide.

The Secretariat of the World Digital Education Alliance released a Proposal on Building an International Digital Education Standards Framework, encouraging members to jointly develop an open, inclusive, and sustainable standards system, while exploring localized, context-specific paths to implementation.

Wu Jianping, Academician of the Chinese Academy of Engineering and Professor at Tsinghua University, proposed enhancing global interconnectivity through international research and education networks, accelerating the integration of Latin America, South America, and Africa into global digital education ecosystems.

Pia Rebello Britto, UNICEF's Global Director of Education and Adolescent Development, highlighted that only through partnership can we harness the full potential of digital technologies to provide more inclusive and equitable education.

Hang Chuon Naron, Deputy Prime Minister of Cambodia, called for cross-border and cross-sector cooperation to build an education system capable of addressing 21st-century challenges and opportunities, ensuring that future education is equitable, inclusive, and transformative.

Daniel Rojas Medellín, Colombia's Minister of Education, expressed strong support for China's proposed international open cooperation framework on digital education, with a commitment to leveraging education and AI for the benefit of humanity.

This global shift in education mirrors the complexities of our times—where globalization, technological revolution, and geopolitical dynamics intersect. It also demonstrates the responsibility of major education powers to dismantle the traditional "center-periphery" structure and promote high-quality global education development. Vice Premier Ding Xuexiang echoed this call, urging strengthened international collaboration to implement the UN Global Digital Compact and advance the SDGs through four key pillars: open partnerships for shared standards, collaborative AI model development, inclusive infrastructure, and ethical AI governance anchored in the vision of "AI for Good."

### 3. Addressing the Challenge of Scalable Personalized Learning

Personalized instruction has long been a central pursuit of education. As digital education evolves from parallel phases of digitization and transformation toward the era of intelligent education, smart technologies are turning the educational ideals of "teaching students in

accordance with their aptitude" and "education without discrimination" into dynamic practices that span all age groups and learning stages.

Wu Yan, Vice Minister of Education of China, noted that since the launch of the national strategy for digital education, the country has upheld the principle of "application as the top priority," continuously expanding access to quality educational resources. Digital education in China is transitioning from quantitative expansion to qualitative enhancement, and an AI-supported education system has been established across basic, vocational, higher, and lifelong education.

In basic education, efforts have been made to guide students in the scientific use of AI and to integrate AI into teacher training, promoting widespread AI literacy. In vocational education, cluster-based training programs for high-skilled professionals have been introduced, along with specialized majors in AI and "AI+X" to prepare a new generation of skilled workers for the intelligent era. In higher education, first-tier disciplines in intelligent science and technology have been established, interdisciplinary AI majors have been added, and AI-focused general education modules have been launched to cultivate top-tier talent in the AI field. Lifelong learning offerings now include AI tool application courses for the general public, as well as practical AI software courses for the elderly, contributing to a learning society in the age of

intelligence where everyone has the opportunity for personal growth and fulfillment.

Mongolian Minister of Education Naranbayar Puversuren emphasized that AI is not only a technological advancement but also a practical solution to improve access, efficiency, and equity in education. He advocated for the integration of AI starting from early childhood education and its dissemination across regions and age groups.

Generative AI is driving a shift in educational practice—from "small-scale experience" to "large-scale implementation," and from standardized "assembly-line education" of the industrial age to adaptive "learning ecosystems" of the intelligent era. This transformation offers practical solutions for scalable personalized learning and holistic student development.

Maria Ana Lugo, Lead Economist and Program Leader for Human Development, World Bank, stated that "AI technologies are remarkably effective in supporting personalized learning," helping students plan learning paths, comprehend course content, and anticipate academic challenges. With support from the World Bank, AI-based learning assistants and accompanying programs have been introduced at scale in Africa and Latin America to provide equitable access to personalized learning resources.

Li Luming, President of Tsinghua University,



introduced "QingxiaoDa," an intelligent agent developed by the university that offers full-process, all-around, and real-time support for students. He emphasized the unique strengths of AI in real-time Q&A and content mastery, adding that "we must use AI to enhance AI literacy" and cultivate the most innovative AI talent using the most advanced AI approaches.

Professor Wu Fei from Zhejiang University stressed the importance of "ensuring more people benefit from AI as a general-purpose technology." Zhejiang University's "ZJU Mr." (chat.zju.edu.cn) integrates computing power, data, models, platforms, and applications into a student-centered intelligent education platform, providing a digital agent hub and large-model training environment for university students across China.

The National Institute of Education Sciences in China introduced an "AI Science Tutor for Primary and Secondary Education," powered by iFLYTEK's Spark cognitive large model. This tool delivers personalized instruction based on a pedagogical reasoning chain, expert-level lesson refinement, and a three-dimensional knowledge graph linking scientific content, learning objectives, and instructional actions—supporting scalable personalized learning.

Kabatyanskiy Grigory, Vice President for Academic Relations at Skolkovo Institute of Science and Technology, presented "01Math,"

an intelligent agent built on knowledge graphs that enhances teaching resources through AI. The system has been successfully piloted at scale in Moscow's educational settings.

#### 4. Strengthening Digital Governance for Beneficial AI in Education

Promoting robust digital governance in education is a vital pillar for advancing high-quality education. As tensions rise between data openness and privacy protection, finding the right balance between innovation and risk has become a central issue in global education governance. Erick M. Carreira, Member of the National Academy of Sciences and Full Professor of ETH Zurich, emphasized that "promoting beneficial AI and preventing technological misuse are critical issues of the intelligent age." He advocated for peaceful and inclusive solutions to problems such as algorithmic bias, filter bubbles, and privacy breaches.

Ren Xianliang, secretary-general of the World Internet Conference, offered three key recommendations for digital governance: enhancing the security of educational data, developing context-sensitive and sustainable capacity-building strategies, and establishing a multilateral international cooperation framework to jointly tackle risks and promote sustainable development. Olli Suominen, counselor of

Education and Science at the Finnish Embassy in China, noted that Finland issued guidelines and legislation on AI in March 2025, aiming to enhance AI awareness among teachers and students and encourage responsible, safe, and innovative use of AI in educational practice. Aleksandre Tsuladze, Minister of Education, Science and Youth of Georgia, proposed using blockchain and multi-factor authentication to verify the security of digital diplomas and certificates, thereby improving cybersecurity standards and ensuring the safety of digital education platforms.

Guided by the principle of "AI for Good," integrating AI into education governance, services, and decision-making processes requires a system rooted in ethics, rationality, and humanity. The conference released the "Wuhan Initiative on Digital Education Cooperation," which calls for the establishment of a multilateral digital education governance system, enhanced collaboration with UNESCO and other institutions, the development of international standards for digital education, and the formulation of transnational certification frameworks to enable global connectivity in smart education.

Mark West, Lead of UNESCO's Global Public Digital Learning Platform Initiative, highlighted the organization's commitment to providing high-quality content through its Public Digital

Learning Portal, grounded in the principles of connectivity, content, and capacity. He emphasized the platform's excellence in interaction design, content control, and regulatory safeguards. Chen Weiling, Deputy Director of the Center for Educational Technology and Resource Development at the Ministry of Education, noted that China's National Smart Education Public Service Platform offers robust safeguards in resource vetting, diversified provision, and incentive mechanisms. It supports users at all levels in accessing and managing applications according to local needs and administrative rights, embodying China's commitment to equal educational opportunities for all.

Practices across countries reflect a convergence of values, demonstrating that the synergy between "AI for Good" and the educational pursuit of truth can advance educational governance through systematic, structured innovation—toward collaborative and intelligent governance for all.

## 5. Empowering Future Teachers through Role Transformation and Capacity Building

Teachers are the driving force behind educational transformation. The rapid evolution and widespread application of AI in education demand that teachers adapt to new roles, take on new missions, and become pioneers of reform,

practitioners of technology integration, and innovators of blended approaches. Zhu Jun, Deputy Director of the Wuhan Municipal Education Bureau, described teachers in the age of intelligence as "lamplighters of the soul, ferrymen of knowledge, and guides of practical experience." Sarjoh Aziz Kamara, Deputy Minister, Ministry of Technical and Higher Education, Government of Sierra Leone, emphasized that teachers serve as engines of sustainable development and must be empowered through intelligent technologies.

Professor Xia Lixin, Party Secretary of Central China Normal University, called on teachers to recognize, respond to, and proactively drive change. He urged them to master new tools and ideas to keep pace with the transformation of the teaching profession. Professor Zhu Zhiting from East China Normal University advocated a philosophical understanding of the relationship between "smart education" and "educational wisdom." He highlighted the irreplaceable value of critical thinking, emotional resonance, and ethical judgment, asserting that future teachers must be technically proficient, pedagogically grounded, and empathetically attuned.

Cultivating future teachers with both AI literacy and educational wisdom requires leveraging the compounded, converging, and multiplying effects of AI. Professor Xiong Zhang of Beihang University stressed that digital literacy and skills

are the foundation of a teacher's professional identity, urging the full potential of AI to be harnessed in teacher development. David Hung, professor at Nanyang Technological University in Singapore, highlighted three key capabilities: applying domain-specific tools, adapting to formal and informal learning environments, and aligning with socio-technical policy frameworks amid the AI-driven shift in the educational ecosystem.

China has long viewed teacher development as the foundation of digital education progress. The National Program for Enhancing Teachers' ICT Capabilities has served over 23 million educators. Jacques Frémont, President of the University of Ottawa, praised China's integration of technology in classrooms as a model for other nations. Yu Weiyue, Director-General of the Department of Teacher Affairs at the Ministry of Education, stated that China is building a triadic teacher development ecosystem featuring daily immersion, project-based empowerment, and platform support. This will be further advanced through a national initiative to digitally empower teachers.

Sannyuya Liu, Vice President of Central China Normal University, emphasized the need for continuous learning to keep up with advancing technologies that support future talent cultivation and professional growth. A report released by Professor Wu Di's team at CCNU, titled "Digital

Literacy of Primary and Secondary School Teachers in China," found that while Chinese teachers possess basic digital awareness and a sense of social responsibility, they still lack deep competencies in areas such as AI-driven pedagogical design, bias detection, and data privacy protection.

To address this, CCNU released the "Global Teacher Development Initiative for the Age of Intelligence," calling for educators to seize the opportunity of the times, embrace AI, enhance support systems, improve digital literacy, deepen technology integration, foster global cooperation, and reinforce ethical safeguards to build a secure educational future.

## 6. Reshaping the Talent Development Paradigm in Higher Education

The development of generative artificial intelligence is exerting systemic pressure on traditional higher education systems of knowledge transmission, practical instruction, and value formation, profoundly reshaping the higher education landscape. The conference highlighted the urgent need for universities to systematically refine the frameworks, strategies, and mechanisms for cultivating students' AI literacy. This includes coordinated efforts across the development of undergraduate AI programs, the establishment of general education curricula

for postgraduate students, the publication of advanced AI textbook series, the implementation of talent development initiatives in AI, the formation of interdisciplinary teaching teams, the enhancement of core practical innovation capabilities, and the integration of AI into educational practices—all aimed at preparing innovative talent for the intelligent era. Thomas J. Sargent, Nobel Laureate in Economics and Professor of New York University emphasized that future digital education should guide students toward a deeper understanding of the working principles, cognitive models, and limitations of AI and machine learning, transforming their capacity from tool-based usage to real-world problem-solving. John Edward Hopcroft, Turing Award Laureate and Professor Emeritus of Cornell University stressed that "only by improving educational quality and cultivating high-level talent can we keep pace with the development of the intelligent age," recommending a shift in talent training models from knowledge production to capability development. Wang Xingxing, founder of Unitree Robotics, noted that AI is revolutionizing the creation and dissemination of knowledge, enabling researchers to process complex datasets and conduct large-scale, repeated verification and experimentation under various conditions, thereby driving interdisciplinary innovation.



In response to the challenges of smart education, universities at home and abroad have launched comprehensive reforms. Tsinghua University showcased a new learning scenario featuring future classrooms, teachers, and students, where educators led 90 students from 23 countries in using AI and extended reality technologies to develop antiviral drugs for monkeypox—demonstrating a novel, borderless, collaborative learning model integrating human-machine-student interaction. Zhejiang University established a dedicated center for AI education and instruction, compiled a new generation of AI general education and "AI+X" interdisciplinary textbooks, and developed both discipline-specific and university-wide large models to support scalable personalized learning. Wuhan University built a full-stack digital-intelligence experimental teaching platform and launched "Digital+" emerging interdisciplinary majors and pilot programs to empower AI talent development. Huazhong University of Science and Technology has leveraged discipline-specific large models, professional knowledge graphs, and digital profiles to systematically design and optimize key educational components, enhancing the quality of elite talent cultivation. The University of Oxford has applied AI technologies to medical education, allowing students to streamline the analysis

of massive datasets, identify new structures in human genetic diseases, and accelerate the development of targeted therapies. Nanyang Technological University in Singapore has broadly implemented generative AI across centers of excellence, practitioner communities, and discipline-based pilot projects, building a compliant and controllable pathway for AI applications in education.

### **7. Advancing the Development and Transformation of Future Education Through Precision and Evidence-Based Approaches**

Scientific and precise evaluation is a critical component of educational development and transformation. Stéphan Vincent-Lancrin, Deputy Head of the Centre for Educational Research and Innovation (CERI), emphasized that "students use AI tools to overcome learning difficulties, and teachers use AI to analyze classrooms and improve instruction," which calls for a fine-grained, intelligent, closed-loop system for the collection, analysis, and feedback of educational data. However, the structural mismatch between the rapid advancement of intelligent technologies and the still-developing forms of education presents challenges for evaluation, including the high cost and difficulty of data collection, and the lack of consistent evaluation standards. For example, data captured by intelligent sensing

completion, collaborative exchanges, emotional dynamics, and teachers' instructional practices, curriculum implementation, and research progress. When combined with motivational, developmental, and ecological evaluation models, this data enables the creation of comprehensive learner and teacher profiles, facilitating a shift from traditional static, standardized assessment frameworks to dynamic and personalized evaluation paradigms.

Data-driven intelligent evaluation mechanisms support a deep transformation of educational assessment from selection and classification to developmental motivation. The Chinese Academy of Educational Sciences has developed an evaluation methodology based on multimodal evidence, constructing a complementary framework that integrates theoretical deduction with empirical induction, generating evaluation content grounded in multimodal data and results that synthesize expert judgment with objective evidence. On this basis, the Academy launched the Global Digital Education Development Index 2025. President Li Yongzhi noted that the GDEI can "present a global picture of digital education development, reveal multidimensional innovation scenarios, and illuminate the promising vision that digital education offers to the world." The 2025 GDEI provides a panoramic analysis of educational performance across 72 countries using core indicators such as literacy, systems, institutions,

content, paradigms, and governance, and introduces a new "AI+Education" category to assess the depth of AI application, ethical compliance, and educational efficacy. This index offers a scientifically grounded and forward-looking reference for building global evidence collection systems, international cooperation networks, and innovation ecosystems, thereby accelerating the comprehensive advancement of digital education evaluation research paradigms and development pathways worldwide.

## 8. Advancing the Development of a Learning Society

Artificial intelligence is reshaping the ways in which societies produce and live, driving the emergence of a learning-oriented society. Building such a society requires the coordinated participation of government agencies, educational institutions, industries, and social organizations, alongside the alignment of educational resources to suit learners of varying ages, professions, and cultural backgrounds. The goal is to establish a lifelong education system that spans the entire life cycle and serves all citizens. Wang Qiming, President of the Open University of China, introduced the university's efforts to leverage intelligent technologies such as knowledge graphs, smart learning companions, and intelligent language

partners. Relying on four key platforms—online education, lifelong education, elder education, and international cooperation—as well as the National Credit Bank for Vocational Education, the university is working to build future learning centers under a government-led, multi-stakeholder collaborative model. This approach aims to construct an inclusive, open, and resilient lifelong learning pathway that provides learning opportunities for all. Alison Dell, Minister-Counsellor for Education at the Australian Embassy in China, highlighted how Australia, through synchronous, asynchronous, online, and blended learning formats, supports learners in gaining innovative micro-credentials and national skills passports, empowering them to become active, confident, knowledgeable, and creative members of society. Xiangen Hu, Director of the Institute of Higher Education Research and Development at The Hong Kong Polytechnic University, emphasized the value of generative AI in lifelong learning, particularly in enhancing opportunity, motivation, emotion, cognition, and the learning environment. Aleksei Panfilov, Vice President of Vladimir State University in Russia, shared multi-stage applications of generative AI and called for stronger international collaboration to build a sustainable lifelong learning ecosystem. Yudil Chatim, Education and Culture Counsellor at the Embassy of Indonesia in China, introduced the “Indonesia-China Vocational Technical

Education and Training Alliance,” a Belt and Road Initiative project that continues to cultivate interdisciplinary talent in AI, big data, and emerging technologies.

## 9. Bridging Development Gaps and Mitigating Ethical Risks

Bridging the digital divide and promoting education equity are essential responsibilities in advancing digital education. Around the world, efforts are accelerating to construct borderless educational ecosystems that break down geographic barriers through digital platforms and facilitate the cross-border flow and sharing of high-quality resources. Buti Manamela, Deputy Minister of Higher Education and Training of South Africa, stated that South Africa is committed to developing a unified, coordinated, and inclusive education system that provides free digital education content to all citizens and introduces a responsive curriculum adjustment mechanism to align with labor market demands, ensuring equal learning and development opportunities for young people. The intelligent transformation of research paradigms is key to narrowing global education development gaps. AI is being widely integrated into scientific, technological, and engineering research, assisting researchers in generating hypotheses, designing experiments, calculating results, and explaining mechanisms, thus

accelerating the process from scientific discovery to technological innovation and social application. The White Paper on China's Smart Education outlines how universities are using AI to transform research paradigms: in the natural and engineering sciences, by developing educational foundation models to support cross-domain application and increase research translation efficiency; and in the social sciences, by advancing Ministry of Education laboratories focused on philosophy and social science and creating big data research platforms for major theoretical and practical issues, promoting resource sharing and interdisciplinary integration.

Participants emphasized that while embracing the paradigm-shifting power of digital and intelligent technologies, it is equally crucial to confront the risks arising from the rapid iteration of AI. Erick M. Carreira, Member of the National Academy of Sciences and Full Professor of ETH Zurich, underscored algorithmic bias as a central issue in the intelligent age and called for a technology ethics framework grounded in principles of equality and inclusiveness. Zhou Hongyu, Vice President of the Chinese Society of Education, warned of ethical risks such as the absence of humanistic care and value guidance, the threat of AI usurping human agency, misuse of AI technologies, and systemic risks to educational ecosystems. The World Digital Education Alliance released the Large Model for Education – Overall Reference Framework

Alliance Standard, embedding safety, ethics, privacy, and governance across all layers—from infrastructure and data to models, interfaces, and applications—offering comprehensive guidance for the design, deployment, and contextual use of educational foundation models. Reynaldo Velázquez Zaldívar, Vice Minister of Higher Education of Cuba, stated that “without action to address the ethical, cybersecurity, and equity challenges posed by digitalization, we cannot advance along the digital path.” Stephen Morgan, Parliamentary Under-Secretary of State of United Kingdom introduced a new national strategy for AI in education, which includes setting minimum safety standards for AI tools, establishing an EdTech Evidence Committee, and launching a sustainable professional development program for teachers, thereby ensuring safe and effective AI adoption in education. Hui Fang Koh, Vice President of Nanyang Technological University in Singapore, proposed three principles for the ethical use of AI in education: teachers must disclose algorithmic involvement when assessing students and retain final human decision-making authority; students must register their use of AI tools to ensure digital integrity; and all AI tools and materials must undergo evaluation to ensure a favorable benefit-risk ratio in terms of pedagogical enhancement and ethical compliance.



# Highlights from 2025 WDEC

The 2025 World Digital Education Conference was successfully held in Wuhan from May 14 to 16. With the theme "Education Development and Transformation: The Era of Intelligence,".

The opening ceremony will be held on the afternoon of May 14, featuring showcases on Future Classrooms, Future Schools, and Future Teachers, along with speeches, keynote addresses, and other sessions. On the morning of May 15, the general session will take place, including speeches from guests and a high-level dialogue on digital education. In the afternoon, ten parallel sessions will be held, covering a variety of topics such as basic education, vocational education, higher education, lifelong learning, teacher development, digital education evaluation, global digital education governance, digital education security and ethics, AI-enabled STEM education, and international AI and education. The closing ceremony will take place on the morning of May 16. During this session, five landmark digital education achievements will be released: the "White Paper on China's Smart Education," the "Proposal for the Establishment of an International Digital Education Standards Framework", the "Large Model for Education – Overall Reference Framework Alliance Standard" as well as the "Global Digital Education Development Index 2025", the "Digital Education Fronts", and the "Wuhan Initiative on Digital Education Cooperation."

The Digital Education Achievements Exhibition at the 2025 World Digital Education Conference is scheduled to be held from May 14 to 17 at the Wuhan International Expo Center. Aligning with the conference theme "Education Development and Transformation: The Era of Intelligence", the exhibition is themed on "Intelligence Knows No Boundaries, Education Thrives in Symbiosis", highlighting the reshaping of boundaries of education by intelligent technologies, and emphasizing the importance of collaboration in advancing educational equity and quality.

Guided by the principles of "Global Vision, Chinese Essence, and Digital Innovation", the exhibition integrates cutting-edge technology with multi-modal interactive experiences to create an immersive, hybrid (online-offline) showcase. A "Prologue-Chapters-Epilogue" narrative structure is adopted for the exhibition, with the "Chapters" section as the core exhibition area, which includes six key thematic zones: Basic Education, TVET Education, Higher Education, Lifelong Education, International Education, and Future Education. The first four thematic zones each feature two sub-sections: "Inception", presenting national strategies and policy outcomes; and "Continuation", highlighting digital teaching practices. Key demonstrations are detailed as below:

- Basic Education: innovations in teaching scenarios, enrichment of educational resources, digital literacy enhancement, and assessment mechanism reforms.
- TVET Education: skill system development, resource ecosystem sharing, teaching practice collaboration, and industry-education integration.
- Higher Education: research-enhanced teaching, smart campus development, discipline-specific innovation, and the transformation of industry-academia-research-application collaboration.
- Lifelong Education: building a nation of avid readers, diversified applications of technology, care for physical and mental well-being, and efforts to bridge the digital divide.
- International Education: digital education achievements achieved by international organizations, institutions, and enterprises.
- Future Education: explorations and applications of frontier technologies in education.

During the conference, an online exhibition hall will be launched concurrently, using 3D modeling and panoramic photography technologies to construct a virtual space, featuring functions such as panoramic roaming, AI-guided tours, interactive experiences, and data dashboards. The exhibition will comprehensively showcase the innovative achievements and development trends in digital education, and serve as a crucial platform for advancing educational digital transformation and facilitating international exchanges and cooperation.



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## World Digital Education Alliance (WDEA) First Executive Council Meeting



### I. Establishment of the Alliance's First Council and Its Structure

The First Executive Council of the Alliance was confirmed to consist of 18 member units, with Beijing Normal University serving as the first Chair Unit. A Joint Secretariat, formed by Beijing Normal University and the China Education Association for International Exchange (CEAIE), will be responsible for the Alliance's daily operations and coordination.





## II. Reviewed and approved the revised draft of the World Digital Education Alliance Charter



Mr. Yang Jun presented the drafting, revision, and finalization process of the Charter to the attendees. After thorough discussions on the details of the provisions, the representatives unanimously agreed to submit the Charter to the Alliance's General Assembly for final review and adoption.

## III. Reviewed and approved the World Digital Education Alliance's 2024 Work Summary and Future Work Plan

The representatives reviewed the Secretariat's report on the 2024 Work Summary and Future Work Plan, acknowledged the Secretariat's achievements in 2024, and discussed the Alliance's future objectives. It was unanimously agreed that the Alliance would focus on:

- Supporting members in developing digital education;
- Building an international dialogue platform for digital education;
- Promoting global sharing of digital education resources;
- Supporting international digital education publications;
- Strengthening organizational development.



## World Digital Education Alliance (WDEA) 2025 General Assembly Meeting



### I. Composition of the WDEA's First Executive Council



Dr. CHEN Xing, representing the Executive Council, reported to the General Assembly Meeting on the Council's composition. It was confirmed that the Council comprised 18 institutions, with Beijing Normal University serving as the Chair Unit. A joint secretariat, established by Beijing Normal University and the China Education Association for International Exchange (CEAIE), was designated to be responsible for the Alliance's daily operations and coordination.



## II. Reviewed and approved the World Digital Education Alliance's 2024 Work Summary and Future Work Plan

Mr. Yang Jun, representing the Joint Secretariat, presented the WDEA's 2024 Work Summary and Future Plan to the assembly. In 2024, the Alliance focused on four key areas and made notable achievements:

- Expanding membership scale;
- Catalyzing member-led initiatives;
- Optimizing organizational structure;
- Advancing framework standards.

The future work plan prioritizes five pillars:

- Supporting members in developing digital education;
- Building an international dialogue platform for digital education;



Delegates unanimously endorsed the 2024 accomplishments and adopted the future plan. The Secretariat is mandated to execute these initiatives and report progress to the Council.

## III. Review and Adoption of the World Digital Education Alliance Charter

Dr. CHEN Xing presented the draft Charter and its consultation process to delegates, detailing its framework and core provisions. The Charter comprises 7 chapters and 37 articles, covering the Alliance's mission, cooperation domains, membership management, governance structure, and operational protocols. Following review, delegates reached consensus and unanimously adopted the Charter.

#### IV. Deliberation on Standardization Initiatives



The Alliance initiated preparatory work for a Standardization Committee in late 2024. Ms. Du Jing, convenor of the Preparation Group of the Committee, and deputy director of the Information Technology Center, Tsinghua University, presented standardization activities of the WDEA, highlighting:

- Proposal for Establishment of an International Digital Education Standards Framework: Launched by the Secretariat, urging members to co-build an "open, inclusive, and sustainable" standards system.
- Large Model for Education-Overall Reference Framework: The Alliance's first standard, providing systematic guidance for the design, development, deployment, and application of educational large-scale models.

Delegates approved both documents for public release by the Secretariat.

#### V. Member Exchange Session

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Delegates approved both documents for public release by the Secretariat.

## V. Member Exchange Session

**Prof. Joseph Hun-wei LEE**, Vice-Chancellor and President of Macau University of Science and Technology:

Congratulated the Alliance's establishment and achievements, sharing MUST's digital intelligence education practices. Proposed four recommendations:

- Clarify the Alliance's strategic positioning as an international organization;
- Develop signature products and events;
- Strengthen international networks (prioritizing Portuguese-speaking and Belt & Road countries and regions);
- Drive cross-sector integration of education, technology, and talent development.



**Mr. Emmanuel Krou N'Guessan**, President of the NGO GA-TIC:

Highlighted Africa's advances and challenges in digital education, emphasizing its critical potential to promote educational equity. Affirmed the Alliance's pivotal role and urged the international community and governments to enhance support for accessible digital education resources and sustainable development.



**Prof. Mohamed Jemni**, Director of ICT Department at The Arab League Educational, Cultural and Scientific Organization: Recognized the WDEA's critical role in global collaboration. Committed to active participation and commendations to enhance the impact of WDEA:

- Establish regional digital innovation labs for R&D and application;
- Promote policy collaboration for AI governance and education;
- Developing inclusive capacity building programs to educators and policymakers, using AI for translation voice synthesis and content localizations to ensure equitable access.



**Dr. Zhan Tao**, Director of UNESCO IITE:

Congratulated the accomplishments of the WDEA, and recommended:

- Pool the strength and resources of all members to jointly conduct the collection, analysis, and promotion of best practice cases;
- Deepen collaborative research among members to systematically synthesize innovative experiences and timely release research findings.

These would benefit members of the WDEA and foster external collaboration.

## VI. Call to Action



Prof. YU Jihong, President of Beijing Normal University and Representative of the WDEA's Chair Unit, delivered the concluding address. Prof. YU stressed that the Alliance serves as a vital platform for the international community to:

- Strengthen dialogue and exchange,
- Deepen pragmatic cooperation,
- Advance high-quality digital education development.

She called on all members to join forces in deepening collaboration to jointly drive the digital-transformation and intelligent-upgrading of global education.



## Opening Ceremony of 2025 WDEC



On the afternoon of May 14, Ding Xuexiang, member of the Standing Committee of the Political Bureau of the Communist Party of China Central Committee and Vice Premier of the State Council, attended the opening ceremony of the 2025 World Digital Education Conference in Wuhan and delivered a keynote speech.

Vice Premier Ding emphasized that China attaches great importance to the development of digital education. President Xi Jinping has said it is essential to implement the national strategy for the digitalization of education, build a learning society, and speed up the cultivation of large numbers of talent across all sectors and levels. China is speeding up work to build an

educational powerhouse, Ding noted, stressing the need to further promote the digital transformation and intelligent upgrading of education, and establish a modern digital education system that is more equitable, of higher quality, smarter and serves lifelong learning for all. This will further strengthen the foundational and strategic role of education in building a modern socialist country in all respects.



Vice Premier Ding emphasized that digital technology is integrating into education at an unprecedented speed and scale. He stressed the importance of grasping the pulse of education development in the intelligent era, deepening international cooperation in digital education, accelerating the implementation of the Global Digital Compact, and working toward the achievement of the United Nations 2030 Sustainable Development Goals. He made four key proposals.

**First, building a High-Level International Open Cooperation System for Digital Education:**

Strengthen communication on digital education strategies and policies among countries, promote comprehensive, broad, and multi-level exchanges and cooperation, continuously expand the membership of the World Digital Education Alliance, and accelerate the formation of a new international cooperation framework for digital education.

**Second, advancing the Transformation of Education Empowered by Digital Technology:**

Improve the open-source, open-access, and collaborative innovation research ecosystem, strengthen joint efforts in addressing common digital education technologies, jointly develop large



models specific to the education sector, and introduce more digital education services and products to meet diverse needs.

**Third, promoting Inclusive Sharing of Digital Education Outcomes:** Advance the interconnectivity of digital infrastructure, enhance the accessibility of digital education, help developing countries accelerate their education digitalization, strengthen talent development and technical support, and bridge the digital education development gap.

**Fourth, strengthening Digital Education Ethics and Security:** Uphold the principle of technology for good, enhance digital education governance, strengthen the regulation of intelligent education products, tools, and services, and ensure the orderly and standardized development of digital education.



Hang Chuon Naron, Deputy Prime Minister and Minister of Education, Youth and Sport of Cambodia also attended and addressed the opening ceremony. Prior to the event, Vice Premier Ding visited the Digital Education Achievements Exhibition and engaged in discussions with representatives from participating organizations.

The 2025 World Digital Education Conference, themed **"Educational Development and Transformation in the Age of Intelligence"**, attracted over 600 participants, including government officials from China and abroad, representatives from international organizations, delegates from universities and schools, and academic experts.





## Huai Jinpeng delivers keynote speech at 2025 WDEC



The 2025 World Digital Education Conference (WDEC) opened in Wuhan on May 14. Minister of Education Huai Jinpeng delivered a keynote speech titled "Jointly Advancing into the Intelligent Era and Promoting Educational Development and Transformation" at the opening ceremony.

Huai noted that the Chinese government places a high priority on the digitalization of education. In recent years, a growing number of countries have actively embraced the digital transformation of education, engaging in sustained efforts to implement digital education and exploring the integration of artificial intelligence (AI) into education. China has

pursued coordinated efforts with other countries around the world to further digital transformation, intelligent upgrading, and integrated innovation in education. By leveraging AI-empowered teaching and learning reforms, China has advanced international cooperation and achieved innovative outcomes in educational digitalization.

Huai stressed that a new wave of scientific and technological revolution and industrial transformation is gaining momentum, with AI technologies evolving rapidly and poised for explosive growth. These developments are profoundly reshaping the way people live and



work, modes of knowledge dissemination, and paradigms of scientific research and innovation, thereby changing people's mindsets. Education has now entered an intelligent era - one where resources are co-created and shared to eliminate the digital divide; where competencies are restructured to promote all-round development; and where openness and collaboration drive mutual learning across cultures. He called for joint efforts to build a value system for AI, share the benefits of AI development, and safeguard AI ethics and safety. Together, the global community will create an open, inclusive, and mutually beneficial ecosystem for smart education.

Huai highlighted the question "What role should education play in the intelligent era?" as a defining issue of our time—one that requires collective reflection and action. He also mentioned China's newly released National Master Plan for Building a Leading Country in Education, which outlines key measures to promote AI-enabled educational reforms. He said that China will use digital education as a bridge to engage with other countries in identifying and responding to changes quickly and wisely. Specifically, China will work to set new benchmarks for educational development and explore new pathways for digital education through the following practices:

### **1. Adhering to the people-first principle.**

Greater emphasis will be put on intellectual

nourishment and all-round development for students by enhancing synergies across science, Technology, and the humanities.

### **2. Focusing on practical application.**

More efforts will be made to strengthen the integration of intelligent technologies with education, cultivate future-oriented teachers, and design future-oriented classrooms and schools.

### **3. Optimizing the educational**

**environment.** Institutional foundations for the development of "AI+ education" will be reinforced, including improving various mechanisms and systems.

**4. Upholding AI ethics.** Ethical norms will be established to effectively address potential risks, guiding students in the responsible use of AI and creating AI-friendly educational settings.

### **5. Promoting openness and**

**collaboration.** Global exchanges in smart education will be deepened to facilitate sharing high-quality digital education resources and jointly advancing the governance of digital education.

## Plenary Session

On May 15, 2025, the Plenary Session of the World Digital Education Conference was successfully held in Wuhan. The event was co-hosted by The Ministry of Education of the People's Republic of China, The Chinese National Commission for UNESCO, and the People's Government of Hubei Province. Wu Yan, Vice Minister of Education of the P.R.C. presided over the session. Participants included representatives from UNICEF, overseas universities, international research institutions, foreign education authorities, diplomatic missions in China, as well as experts, scholars, and university delegates from China and abroad. The conference served as a vital platform for in-depth dialogue and collaboration on the global development of digital education.

A special segment titled "High-level Dialogue on Digital Education" was held in the morning, moderated by You Zheng, Academician of the Chinese Academy of Engineering and President of Huazhong University of Science and Technology. Five distinguished speakers from UNICEF, international universities, and research institutes engaged in thought-provoking discussions on core issues in the intelligent era, including teaching models, talent cultivation, educational equity, and technology ethics. The dialogue centered on principles such as inclusiveness, collaboration, and

human-centered development, highlighting both the opportunities and challenges that digital innovation brings to education.

Song Yonghua, Rector of the University of Macau, emphasized the need to reimagine the competency and literacy framework for talent in the age of intelligence. Joaquín Goyache Goñi, Rector of Complutense University of Madrid, called for balancing technological innovation with values education and authentic campus experiences. Pia Rebello Britto, Global Director of Education and Adolescent Development, UNICEF, stressed that multi-stakeholder collaboration is key to promoting equity and inclusive growth in education. Rodrigo Martins, President of the European Academy of Sciences and Full Professor of New University of Lisbon, advocated for the creation of global interdisciplinary cooperation mechanisms and borderless technological frameworks. Erick M. Carreira, Member of the National Academy of Sciences and Full Professor of ETH Zurich, warned of algorithmic bias and underlined the importance of ethics in technology, stating that "equality and inclusion are the foundational goals of intelligent education." This high-level dialogue reflected a broad international consensus, outlining a future for digital education where technology is the vessel, ethics the rudder, and collaboration the sail.

Chinese experts and university representatives shared key insights into the country's digital transformation in both basic and higher education. They showcased advances in areas such as the development of the national smart education platform, the promotion of intelligent teaching applications, and innovations in digital governance. The conference also saw a proposal to establish a Global Partnership Alliance for Holistic Education Development, aimed at promoting open access to educational data and resources worldwide and deepening international exchange and pragmatic collaboration.

The entire plenary session closely followed the global trends in digital education, focused on real-world challenges, offered fresh perspectives, and built international consensus. It clearly demonstrated a shared global vision to promote equity, enhance quality, and drive innovative collaboration in education in the digital age.



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## High-level Dialogue on Digital Education

On the morning of May 15, during the High-Level Dialogue on Digital Education at the Plenary Session of the 2025 World Digital Education Conference, five distinguished guests from UNICEF, foreign research institutions, and overseas universities engaged in in-depth discussions on topics such as teaching models in the era of intelligence, talent development, educational equity, and technology ethics. The dialogue was moderated by You Zheng, academician of the Chinese Academy of Engineering and President of Huazhong University of Science and Technology.

Yonghua Song, rector of the University of Macau (UM), remarked, "Universities are responsible for cultivating and leading future talent. It is important to recognize that we are still in the early stages of the intelligent era. It is crucial to develop students' abilities in independent thinking, critical judgment, rational decision-making, and cross-cultural communication. This requires a top-level redesign of the knowledge and competence framework."

Joaquín Goyache Goñi, Rector of Complutense University of Madrid, emphasized that the advancement of digital technology cannot replace the authentic experiences of campus life. "We must strike a balance between digital

tools and independent thinking. It is essential to cultivate students into good citizens, not merely skilled technicians. In this process, instilling the right values in students is of utmost importance."

"Alone, one may go fast, but together, we can go far." Rodrigo Martins, President of the European Academy of Sciences and Full Professor of New University of Lisbon, also stressed the importance of collaboration. He pointed out the need to establish interdisciplinary cooperation and borderless technological frameworks to ensure that intelligent technologies truly benefit learners.

How can we promote the ethical use of AI and prevent technological abuse? "Algorithmic bias is a key issue we must address in the age of intelligence, and equality and inclusiveness are among the solutions," said Erick M. Carreira, Member of the National Academy of Sciences and Full Professor of ETH Zurich.

## Closing Ceremony



On May 16, the 2025 World Digital Education Conference concluded in Wuhan. The closing ceremony was chaired by Wang Guangyan, Vice Minister of the Ministry of Education. Hangchuon Naron, Deputy Prime Minister and Minister of Education, Youth and Sport, Kingdom of Cambodia, attended the ceremony. Other dignitaries in attendance included Wu Yan, Vice Minister of Education of the P.R.C., Zhuge Yujie, Deputy Secretary of the CPC Hubei Provincial Committee, and Lu Shan, Vice Governor of the Zhejiang Provincial People's Government.

At the closing ceremony of the 2025 World Digital Education Conference in Wuhan, the World Digital Education Alliance released a set of landmark standards designed to guide the global development of digital education. These outcomes represent a significant step toward greater international coordination and innovation in educational technology.

During the ceremony, the White Paper on China's Smart Education was released, the China's National Strategic Action on Digital Education 2.0 was announced, and the Proposal for the Establishment of an International Digital Education Standards Framework, the Large Model for Education-Overall Reference Framework Alliance Standard, the Global Digital Education



Development Index 2025, the Digital Education Fronts, and the Wuhan Initiative on Digital Education Cooperation were also unveiled.

Government officials from China and abroad, leaders of relevant international organizations, representatives from primary, secondary, and higher education institutions, as well as experts and scholars, attended the closing ceremony.

During the 2025 World Digital Education Conference, officials from government departments, leaders of international organizations, diplomats, and renowned university presidents from more than 80 countries and regions gathered in Wuhan to jointly explore the opportunities and challenges facing digital education and to look forward to the vast prospects of digital education in the intelligent era, achieving fruitful results. The next conference will be held in Zhejiang, China, next year.



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# Ten Parallel Sessions held at the 2025 WDEC



## Parallel Session 1

### Connecting the Future: From Reflection to Action in Artificial Intelligence Education for Basic Education Schools

In November 2024, the Ministry of Education of China issued the Notice on Strengthening Artificial Intelligence Education in Primary and Secondary Schools, and many countries and regions worldwide also incorporated artificial intelligence education into their basic education development plans. The parallel session "Connecting the Future: From Reflection to Action in Artificial Intelligence Education for Basic Education Schools" aimed to bring together basic education administrators, front-line teachers, and experts from various countries and regions to share their forward-

looking insights and practical experiences in implementing artificial intelligence education at the basic education level, thereby facilitating the transition of artificial intelligence education in primary and secondary schools from understanding and reflection to action and practice.

This session focused on three key areas for discussion: Firstly, how to utilize artificial intelligence technology to improve the precision of education and teach students by their aptitudes, thus innovating the teaching mode. Secondly, how to develop high-quality digital

educational resources using artificial intelligence technology to promote the joint construction and sharing of high-quality educational resources. Thirdly, how to guide primary and secondary school students to use AI tools scientifically and appropriately, cultivating their independent thinking and innovative capability in the AI era.

Hu Lishan, Director of the Standing Committee of Wuhan Municipal People's Congress in Hubei Province, stated in his speech that artificial intelligence education should serve as the core engine to drive educational reform through the coordinated development of four key initiatives: "Future Teachers," "Future Classrooms," "Future Schools," and "Future Learning Centers." First, a collaborative training mechanism involving "universities + enterprises + schools" will be established to transition teachers from knowledge transmitters to learning facilitators. Second, digital, precise, and personalized classroom teaching will be implemented, utilizing smart labs, intelligent classrooms, and other innovative settings to optimize campus governance through data-driven approaches. Lastly, by leveraging regional education cloud platforms to consolidate resources, school education will extend into ubiquitous learning environments, forming a dynamic cycle where "empowered teachers enhance classrooms, innovative schools provide support, and platforms expand the ecosystem."

Every child harbors a deep desire to explore the world and create the future. Huang Hui, principal of Wenzhou Experimental Middle School in Zhejiang Province, shared that since 2012, the school has taken maker education as a starting point and continuously explored the integration of technology and education. Similarly, Wang Zhen, principal of the Second Primary School of Shuiguohu, Wuchang District, Hubei Province, stated that their school empowers teaching with artificial intelligence technology, building a cross-province and cross-city intelligent education consortium to promote the joint construction and sharing of new quality educational resources. When generative AI meets the original mission of education, it can ignite the potential in every life. Cai Lei, principal of Guangqumen Middle School in Beijing, emphasized that the school views AI not merely as a technical tool but as an educational lever to realize the millennia-old ideal of "teaching according to students' aptitudes," actively exploring and practicing the empowerment of school education through generative artificial intelligence. Li Hua, principal of Jingrui Primary School in Shapingba District, Chongqing, remarked that every subject at Jingrui Primary closely integrates with artificial intelligence, and every teacher is qualified to teach an AI course, ensuring that large-scale personalized teaching takes root firmly within the national

curriculum framework.

At the conference, the Department of Basic Education of the Ministry of Education and the Education Technology and Resources Development Center (Central Institute for Educational Technology) jointly launched the national primary and secondary school smart education platform “Yuxiaomiao” intelligent agent, along with a dedicated AI education column. Education authorities, principals, experts, scholars, and technology enterprises from home and abroad shared practical experiences and cutting-edge educational ideas.



## Parallel Session 2

### Co-Integration and Co-Development: Smart Ecosystem Construction in Vocational Education



The parallel session on Digitalization in Vocational Education is themed "Co-Integration and Co-Development: Smart Ecosystem Construction in Vocational Education", with agenda items including opening remarks, keynote speeches, expert speeches and concluding remarks. The main topics cover the following aspects:

- Exploring the path of digitalization leading the transformation and development of vocational education;
- Reshaping the vocational education classroom ecosystem and way of learning with digital technologies;
- Optimizing vocational education management processes and decision-making effectiveness with digital tools;
- Exploring the construction of intelligent talent training model in vocational colleges with digital enterprise collaboration.



This session aims to share the latest policies, strategies, and practices in digitalization of vocational education and training globally, facilitating cross-border experience exchange and mutual learning; showcase cutting-edge research outcomes, encouraging interdisciplinary and cross-sector collaborative research to advance knowledge innovation; explore applications of emerging technologies such as AI, big data, and virtual reality in TVET education, unlocking their transformative potential; strengthen international cooperation in talent development within this field, enhancing the professional competencies of educators.

This session is guided by the Department of Vocational and Adult Education of the Ministry of Education of PRC and organized by Wuhan Technical University. Expected attendees include representatives from international organizations, officials from domestic and foreign education authorities, as well as delegates from higher institutions, industries and enterprises, experts and scholars.



## Parallel Session 3

### Smart Education: Reshaping and Transcending Higher Education Teaching Systems



The parallel session on "Smart Education—Reshaping and Transcending Higher Education Teaching Systems" is guided by the Department of Higher Education of the Ministry of Education of China, and organized by Wuhan University. This session focuses on discussions on innovations in educational philosophies and models in the intelligent era, the impact and transformation of AI on higher education teaching, AI literacy, as well as educational ethics and standards. The agenda includes demonstrations of future classrooms, opening remarks, keynote speeches, roundtable discussions, and closing remarks, with participation from representatives

of international organizations, universities, research institutions, and industry experts. Experts at the session widely agreed that artificial intelligence is profoundly reshaping the organization and processes of education systems. AI technologies are not only driving the personalization of educational content and the reconfiguration of classroom formats, but are also facilitating a more equitable distribution of educational resources. In basic education, the integration of AI is catalyzing a shift from "experience-driven" to "data-driven" models, supporting educational equity, improved teaching quality, and diversified student development.





The role of teachers is also evolving amid the rise of intelligent education. Teachers are transitioning from traditional knowledge transmitters to instructional designers and learning facilitators. The session emphasized the importance of strengthening teacher training in AI tool application and educational technology integration, in order to enhance their professional competencies and better adapt to new teaching environments and learning needs in the age of intelligence.

Student development is becoming increasingly autonomous and exploratory. With the support of AI technologies, learning is no longer confined to standardized progress or a single trajectory. Students are encouraged to become active learners and problem-solvers. In terms of

platform development, the National Smart Education Platform continues to improve, offering essential infrastructure to support personalized teaching, intelligent content delivery, and competency-based learning.

The session also addressed the digital transformation of vocational education. It was noted that AI-driven reconstruction of knowledge systems, curriculum design, and instructional processes can significantly enhance the quality of technical and skilled talent cultivation. The development of vocational education platforms further promotes resource integration, teaching innovation, and multilateral collaboration, contributing to regional development and creating new opportunities for international cooperation.



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This session showcased China's active efforts and achievements in digital education policy design, technology application, and international engagement. Participants unanimously agreed on the need to further deepen global collaboration, share governance experiences in digital education, and jointly promote the sustainable and high-quality development of education systems in the era of intelligence.



## Parallel Session 4

### Explore Digitally, Act Wisely: Empowering Large-Scale Personalized Lifelong Learning through Digital Intelligence



"Explore Digitally, Act Wisely: Empowering Large-Scale Personalized Lifelong Learning through Digital Intelligence" is one of the parallel sessions during the 2025 World Digital Education Conference. It is guided by the Open University of China, and organized by Hubei Open University and Wuhan Open University. Officials of educational departments, university presidents/rectors, officials of embassies in China, senior executives of renowned enterprises,

experts and scholars from China, Italy, South Africa, Russia, Tanzania, Australia, Indonesia,

Thailand, Malaysia, etc. have been invited to speak at the session.

The session aims to develop a platform for international exchanges and cooperation in the field of digital education, promote innovative changes in lifelong education, and contribute to global education digitalization and construction of lifelong learning system. The session includes three parts, i.e. opening remarks, keynote speeches and release ceremonies.

The main discussion will focus on two major topics, namely, "Innovation and Transformation





of Educational Paradigm Driven by Intelligent Technology" and "Innovative Exploration and Practice of Ecological Governance Mechanism for Lifelong Learning".

In recent years, with the continued advancement of China's national education digitalization strategy, the vision of a learning system where "everyone can learn, anytime, anywhere" is steadily becoming a reality. As a new round of technological and industrial transformation accelerates, cutting-edge digital technologies are being rapidly integrated into education systems, reshaping the global landscape and future of lifelong education.

Chen Zhixiang, President of Hubei Open University, cited an example where the

university utilized 5G and AI technologies to break down courses such as "Automatic Equipment Installation and Debugging" into over 5,000 knowledge nodes. Based on learner profiles, AI dynamically plans learning pathways, resulting in a 28% increase in course completion rates.

Dr. Hu Xiangen, Director of the Institute for Higher Education Research and Development at the Hong Kong Polytechnic University, believes that the effectiveness of AI in education should be studied more deeply. "Research has shown that AI is most effective in the areas of 'opportunity' and 'cognition,' while humans still dominate in the fields of 'motivation,' 'emotion,' and 'society,' which



require empathy, a sense of purpose, and cultural alignment." Dr. Hu further noted that even in the field of "cognition," AI has limitations and cannot yet analyze learners' learning situations in complex concepts or ambiguous contexts the way human teachers can.

"Education and teaching should strike a balance between human intelligence and AI use, with AI supplementing rather than replacing human interaction," said Dr. Hu.

## Parallel Session 5

### Transformation of Teachers' Roles and Enhancement of Abilities in the Intelligent Era



On the afternoon of May 15, the parallel session on "Transformation of Teachers' Roles and Enhancement of Abilities in the Intelligent Era" is guided by the Department of Teacher Education of the Ministry of Education of China and organized by Central China Normal University (CCNU). The session brought together over 140 participants from 12 countries and regions, including education officials, institutional representatives, experts from international organizations, and scholars specializing in educational digitalization. This session will focus on key topics such as teacher's competency development in the intelligent era,

human-AI collaborative teaching practices, and digital literacy enhancement. The aim of the session is to promote technological innovation that fosters educational equity, support the transformation of teachers' roles, and share the practices of digital education transformation from various countries through both theoretical discussions and practical experience sharing.

The development of digital technology has raised new demands for the construction of the teaching workforce. Peng Shuangjie, President of Central China Normal University, believes that the development of technologies such as





artificial intelligence will not change the fundamental nature of education, which is people-centered and focuses on fostering virtue. This requires teachers to not only master intelligent tools and optimize teaching but also to remain committed to the primary goal of educating students, maintaining the warmth of education amidst the wave of technology.

At the roundtable forum, Zhu Jun, Deputy Director of the Wuhan Municipal Education Bureau, vividly proposed that in the intelligent era, teachers should become the "lamplighters" of students' spiritual world, the "ferryman" of the world of knowledge, and the "guides" of the world of practice.

In assisting teachers in adapting to role changes, the role of education administrators is also crucial. "University leaders should not only systematically enhance the AI literacy and skills of faculty and staff but also promote the transformation of teachers into technology shapers and change leaders," said Nigel Haskins, Vice Chancellor of Newcastle University in the UK.

## Parallel Session 6

### Digital Education Development and Evaluation



On May 15, 2025, the parallel session on "Digital Education Development and Evaluation" of the 2025 World Digital Education Conference was held in Wuhan. Zhang Baiqing, Vice Chairman, Committee of Hubei Provincial the CPPCC, delivered a speech outlining Hubei Province's initiatives and plans to leverage digital technology in building a strong educational province. He advocated for enhanced global exchanges on digital education development experiences, promoted the empowerment of education evaluation through digital means, and called for driving global educational transformation in the

intelligent era. Abolfazl Vahedi, Vice Minister, Ministry of Science, Research and Technology, Iran, attended the conference and delivered a special address. He shared Iran's actions and vision in digital education development and evaluation, with a particular focus on the key role of National Document of Artificial Intelligence issued in 2024 in advancing governance, strengthening scientific research foundations, and driving progress in education, healthcare, security, environment, and culture.

Focusing on the core theme of "Global Trends





and Evaluation of Artificial Intelligence and Education," the session featured keynote reports from multiple Chinese and international experts. Stephen Vincent-Lancrin, Deputy Head of the Centre for Educational Research and Innovation at the OECD, emphasized the need to balance technological advancement with ethical governance in order to foster a fair and efficient digital education ecosystem. Cao Peijie, Director of the Institute of Digital Education at the China National Academy of Educational Sciences (CNAES), introduced the application standards for the National Smart Education Platform and shared insights into its international development trends. Representatives from Slovenia, Zhejiang University, Spain, and Elsevier also shared practical experiences and policy recommendations on topics including the development and application of Gen-AI (represented by DeepSeek, ChatGPT, and

Grok3), intelligent instruction, AI talent development, and data-driven educational decision-making.

During the session, CNAES unveiled a prototype system titled "Intelligent Mentor for Primary and Secondary School Science Education". Based on domestic large language models, the system has already undergone initial development and achieved notable progress. It will be integrated into the National Smart Education Platform to support intelligent tutoring functions. Meanwhile, the Global Digital Education Development Index 2025 International Expert Advisory Committee was officially launched, accompanied by a certificate presentation ceremony. The committee is expected to promote the continued internationalization of research in digital education evaluation.



## Parallel Session 7

### Global Digital Education Governance — Openness, Sharing, and Mutual Learning



The parallel session on "Global Digital Education Governance: Openness, Sharing, and Mutual Learning" is guided by UNICEF and Center for Educational Technology and Resource Development, the Ministry of Education of China (National Center for Educational Technology, NCET), and organized by Huazhong University of Science and Technology, Hubei Provincial Educational Informatization Development Center (Hubei Provincial Center for Educational Technology), and China Mobile Communications Group Co., Ltd.

This session aims to build a platform for fostering an international community of practice to share global achievements and experiences and initiate in-depth dialogues in digital education

governance. High-level Officials from various countries, experts as well as corporate representatives will be invited, participating in opening remarks, keynote speeches, high-level dialogue and interactive discussions.

Higher education institutions also play a pivotal role in the digital transformation of education. You Zheng, Academician of the Chinese Academy of Engineering and President of Huazhong University of Science and Technology, emphasized that universities should restructure academic disciplines, promote research outcomes, deepen industry-education integration, and enhance international cooperation to accelerate the cultivation of globally competitive digital talent. At the same time, the private sector



is actively contributing to addressing educational inequalities. Huang Jin, Vice President of Huawei Cloud, presented an AI-powered arts education initiative using virtual teaching assistants to expand access to arts instruction in remote regions, thereby broadening and deepening educational outreach.

With the rapid advancement of AI, responsible and effective use of artificial intelligence in education emerged as a central topic of discussion. Olli Suominen, counselor of Education and Science at the Finnish Embassy in China, stressed that the integration of AI into education must align with national curriculum standards and qualification frameworks, ensuring that teachers and students are equipped with the necessary skills to maintain pedagogical quality and effectiveness. Yang Zhongmin, President of South China Normal

University, called for the development of a more modern and open teacher training system, powered by AI, interdisciplinary learning, and global educational cooperation, to enhance overall teacher competence.

Yang Lin, Deputy General Manager of the Government & Enterprise Business Department of China Mobile, shared the company's collaboration with the Ministry of Education to promote equitable access to education. Initiatives include the launch of the Smart Education Platform Inclusion Program, AI-powered cloud computers, and the official rollout of the first pilot in Hubei Province, injecting fresh momentum into the expansion of quality educational resources.

At the core of digital education governance lies the goal of ensuring equitable access to quality learning opportunities and enhancing the availability and effectiveness of

educational content. Mark West, Lead of UNESCO's Global Public Digital Learning Platform Initiative, pointed out that fragmented online content remains a significant challenge, and that providing high-quality resources is essential for improving learning outcomes and digital literacy. Lee Lin Yee, Director of the Educational Technology Division at the Ministry of Education of Singapore, shared the country's experience in developing educational platforms centered on user experience and inclusive design. Sandeep Bapna, Vice President of International Operations at Khan Academy, highlighted the organization's global efforts in promoting digital learning partnerships.

Participants broadly agreed that while technological change offers transformative opportunities for education worldwide, it also raises the bar for education governance. Coordinated efforts are urgently needed to build a more open, inclusive, and interconnected global digital education ecosystem that fosters mutual learning and shared progress.



## Parallel Session 8

### Digital Education Security and Ethics: Challenges, Consensus, and Action



The parallel session on "Digital Education Security and Ethics: Challenges, Consensus, and Actions" is designed to establish an interdisciplinary and cross-regional dialogue platform. It aims to convene experts in digital education, AI security, and ethics to analyze the core challenges of digital education security and ethics, foster international consensus, and promote collaborative governance actions. It seeks to provide secure and reliable practical pathways for the global digital transformation of education.

This session is guided by the Center for School Development and Planning, the Ministry of Education of China, and organized by Wuhan Municipal Education Bureau, Preparatory Office of Wuhan Cybersecurity University, and Wuhan Vocational College of Software and Engineering. Renowned experts in digital education, AI security, and ethics from home and abroad, along with representatives from universities, digital security and education enterprises, and relevant international organizations are invited to participate.



Wang Guangyan, Vice Minister of Education of China, emphasized that the Chinese government places great importance on the digitalization of education, actively embraces intelligent transformation, and is vigorously implementing the national education digitalization strategy to accelerate the digital transformation and intelligent upgrading of the education system. Facing the challenges brought by a new wave of information technology, and the pressing question of the future direction of digital education, the Chinese government remains committed to the fundamental mission of fostering virtue through education and upholds the principle of "technology for good." He called for the joint development of governance mechanisms to strengthen pragmatic global cooperation and

build a healthy and secure global digital education ecosystem; for jointly upholding ethical boundaries by establishing a robust security assurance framework for the integration of AI and education; for collaboratively building a secure digital foundation by constructing coordinated cybersecurity systems and ensuring comprehensive protection for education data throughout its entire lifecycle; and for the shared use of educational resources to guarantee the high-quality operation of digital education platforms and ensure the quality of global educational resource provision.



Sheng Yuechun, deputy secretary of the Shaoxing Municipal Party Committee and mayor stated that Wuhan, as a central city in China, a national historical and cultural landmark, and an international transportation hub, is earnestly studying and implementing President Xi Jinping's important instructions on education digitalization. The city is fully advancing the education digitalization strategy, promoting integrated development, intelligent leadership, and international cooperation, and accelerating the construction of a nationally influential hub for scientific and technological innovation. He expressed hope that the conference would serve as an opportunity to further deepen international cooperation in digital education, jointly build a global education data security network, explore ethical guidelines for smart education, and collaboratively launch platforms such as a digital education ethics laboratory, a security talent pool, and a dialogue forum on civilizations. These efforts aim to strengthen cooperation in digital education governance and collectively build a new global digital education ecosystem.



## Parallel Session 9

### AI For STEM Education



The parallel session on "AI For STEM Education" will focus on the latest research developments and best practices concerning the integration of Artificial Intelligence (AI) in Science, Technology, Engineering, and Mathematics (STEM) education. It aims to explore how AI can empower and cultivate students to become innovative researchers and outstanding engineers. This session will bring together educators, education researchers, and AI specialists to exchange ideas on the current applications and future directions of AI in STEM education.

The event was jointly organized by the Ministry of Education of China, the National Commission of the People's Republic of China for UNESCO, and the People's Government of Hubei Province, and hosted by Wuhan University of Technology. Over one hundred educators, researchers, AI experts, and corporate representatives from China and abroad attended the session to engage in in-depth dialogue on the current applications and future prospects of artificial intelligence in STEM education.



The keynote speeches were delivered in two parts. Representatives from Aix-Marseille University in France, Tongji University, the University of Oxford, and the Hong Kong Education Bureau addressed topics such as higher education reform powered by AI, boundaryless collaboration, and the integration of STEAM education. In the second part, experts from the City University of Macau, Friedrich Schiller University Jena, the Asia-Pacific Space Cooperation Organization, and Wuhan University of Technology shared their insights on the differentiated applications of AI in STEM and non-STEM fields, the integration of AI with life sciences, AI-driven space education, and the use of AI foundation models in cultivating top-tier innovative talent.

During the roundtable discussion, experts from France, Singapore, the United Kingdom, the United States, Malaysia, Cambodia, and China explored the theme "AI Empowering

Education: Research, Teaching, and Practice." They discussed how AI can support educational innovation, how to balance human-machine collaboration, and how to enhance global learners' competencies. The panel agreed that while AI can answer questions, the ability to ask meaningful and insightful questions remains uniquely human.

Yang Zongkai, President of Wuhan University of Technology emphasized that in the intelligent era, education should shift from being knowledge-based to competency-based. He stated that the university will continue to drive efforts in four key areas: learning AI, using AI, creating AI, and safeguarding AI. The institution will explore more open, shared, competency-centered, and personalized education models to fully harness AI's potential in the education sector.



## Parallel Session 10

### International Forum on Artificial Intelligence and Education (Empowering Educational Transformation with AI)



The rapid development of Artificial Intelligence (AI) has brought both challenges and opportunities for global education transformation. In this context, the integration of AI and education has become a global consensus. The current iterative development of AI, particularly represented by AI, cloud computing and big data, is driving the comprehensive intelligent upgrading of global education and promoting countries around the world to build a more inclusive, equitable and personalized education ecosystem.

China and UNESCO have cooperated to organize four international conferences on AI and education

since 2019, with the initial conference publishing the Beijing Consensus on Artificial Intelligence (AI) and Education, the first document to provide guidance and recommendations on how best to harness the potential of AI technologies to achieve the goals set out in the Education 2030 Agenda. The conference serves as a globally influential platform for exchanges and cooperation on AI and education, accelerating the achievement of the United Nations Sustainable Development Goal 4.

UNESCO adopted the Recommendation on the Ethics of Artificial Intelligence in 2021 and





published the AI Competency Framework for Teachers and the AI Competency Framework for Students in 2024, proposing a guideline for AI capacity building and empowering teachers and students around the world to harness AI in a safe, ethical and responsible manner.

With the aim of empowering global education transformation with AI, and working together to accelerate the achievement of the 2030 Agenda for Sustainable Development and the building of a community with a shared future for

mankind, the International Forum on Artificial Intelligence and Education 2025, a parallel session of 2025 World Digital Education Conference, is guided by the Secretariat of National Commission of China for UNESCO and the Department of Science Technology and Informatization of the Ministry of Education of China, organized by Wuhan University of Technology, in partnership with UNESCO Institute for Information Technologies in Education (IITE), and supported by UNESCO International





Research and Training Centre for Rural Education, International Centre for Higher Education Innovation under the auspices of UNESCO and UNESCO Chair on Artificial Intelligence in Education.

This session invites relevant education ministers and the world's top AI experts, researchers in education to share insights on the development and future trends of AI technologies, discuss their transformative impact on education, focus on the competencies and skills required in the Age of AI, explore a shared policy vision, deepen international cooperation mechanisms, and work together to promote global education transformation.

# Release of Conference Deliverables

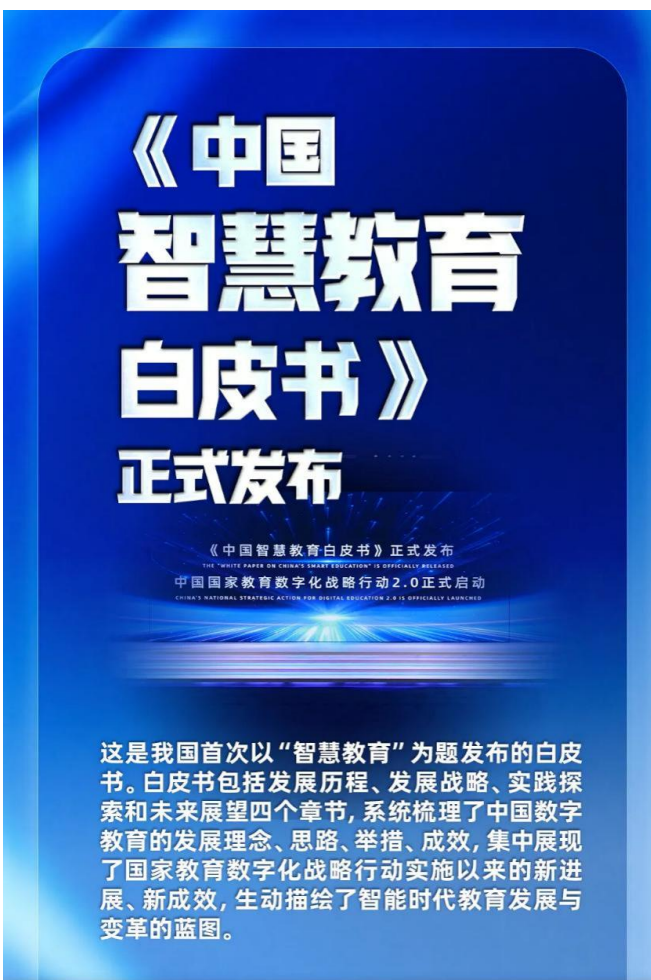
## White Paper on China's Smart Education

On May 16, the White Paper on China's Smart Education was officially released at the 2025 World Digital Education Conference. This is China's first white paper specifically dedicated to "smart education."

The white paper is structured into four chapters: Course of Development, Strategies for Development, Practical Exploration, and Future Prospects. It systematically reviews China's philosophy, approaches, policies, and achievements in digital education, highlights the progress and outcomes of the national digital education strategy, and presents a vivid blueprint for educational development and transformation in the intelligent era.

According to the white paper, since the 18th National Congress of the Communist Party of China, the CPC Central Committee with Comrade Xi Jinping at its core has attached great importance to digital education and has issued a series of important instructions, vigorously advancing the development of digital education.

The Chinese government has made significant achievements by promoting the digitalization of school environments, strengthening the supply



of high-quality resources, and deepening large-scale and normalized applications. China is rapidly transitioning from the stages of digital conversion and digital transformation to that of smart education, establishing a modern digital education system for the intelligent era.

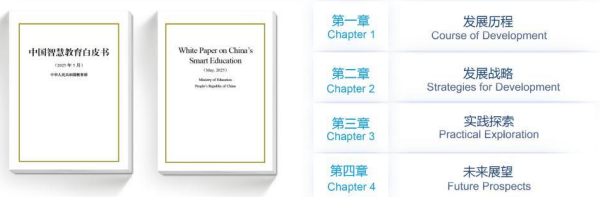
The white paper outlines the "3C" development philosophy upheld by the Ministry of



Education — Connection, Content, and Cooperation — and the "3I" strategic direction — Integrated, Intelligent, and International. Guided by these principles, China has strengthened top-level planning for education digitalization, enhanced the development and use of the National Smart Education Public Service Platform, launched initiatives to empower education with artificial intelligence, and expanded international cooperation in digital education — paving a path of digital education development with Chinese characteristics.

Furthermore, the white paper emphasizes the Chinese government's strong commitment to addressing the profound impact of artificial intelligence on education. It actively promotes the deep integration of AI and education to foster innovation and transformation. As the national digital education strategy advances, local governments and schools have implemented a wide range of initiatives in AI talent development, widespread adoption of intelligent technologies, construction of smart education mechanisms and infrastructure — creating a dynamic and diverse landscape of experimentation and practice across the country.

《中国智慧教育白皮书》全面介绍中国推进教育数字化、发展智慧教育的理念、思路、举措和成效，分享智能时代教育发展变革的实践经验  
The "White Paper on China's Smart Education" introduces China's philosophy, practices and visions in developing smart education in the intelligent era



The white paper proposes that 2025 marks the "Inaugural Year of Smart Education." Confronting the new stage of smart education, it is imperative to establish new standards for talent cultivation and pioneer new ways for high-quality educational development.

At the crossroads of educational evolution in the intelligent era, China's Ministry of Education will anchor its efforts in the "3N" framework—New Stage, New Standard, and New Ways—to drive profound, systematic reforms. These initiatives aim to contribute China's insights and solutions to global smart education development, collectively embarking on a new journey of digital transformation in education.

# 中国智慧教育白皮书

(2025 年 5 月)

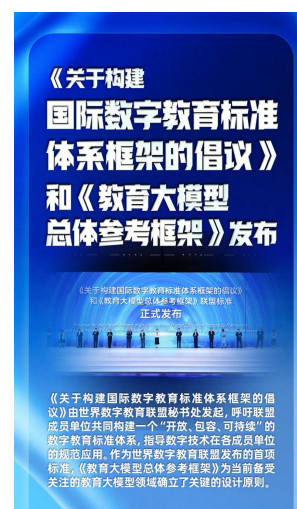
中华人民共和国教育部

# White Paper on China's Smart Education

(May, 2025)

Ministry of Education  
People's Republic of China

# Proposal for the Establishment of an International Digital Education Standards Framework and Large Model for Education-Overall Reference Framework Alliance Standard



—2025世界数字教育大会成果速递—



*Proposal for the Establishment of an International Digital Education Standards Framework: A Blueprint for Global Digital Education Standards.*

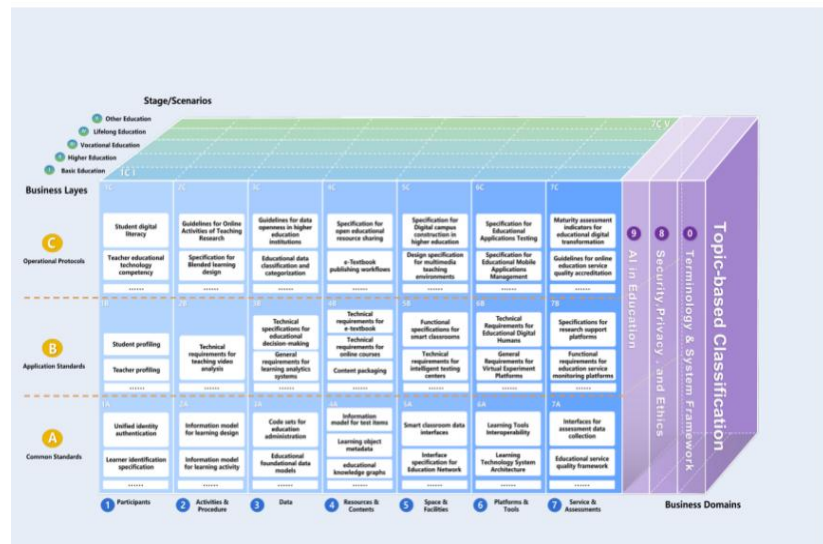
The release of the "Proposal for the Establishment of an International Digital Education Standards Framework" is of great significance. This proposal, initiated by the Secretariat of the World Digital



Education Alliance (WDEA), calls for the collective efforts of alliance members to reach a consensus and collaboratively build an "open, inclusive, and sustainable" digital education standards system. The framework will guide the standardized application of digital technologies across member organizations, promote the sharing of educational resources, foster collaborative technological innovation, and contribute to global educational equity and high-quality development. This framework will provide clear guidance for the future development of WDEA standards and the regulated application of digital technologies within member organizations, thereby accelerating the global advancement of educational equity and high-quality development. The alliance also encourages all member organizations to refer to this framework and actively explore standardized practices that align with the specific needs of their regions and institutions.



## 《关于构建国际数字教育标准体系框架的倡议》 Proposal for the Establishment of an International Digital Education Standards Framework

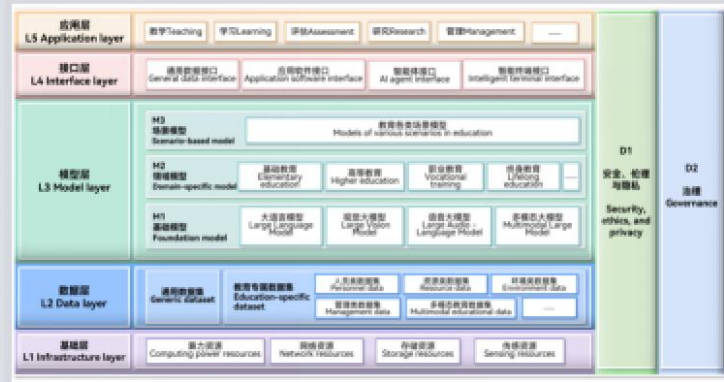


### Large model for education— Overall reference framework

Reference number  
WDEAS 0001: 2023

World Digital Education Alliance  
Standardization Committee  
© WDEASC 2023

## WDEA标准《教育大模型总体参考框架》 *Large Model for Education—Overall Reference Framework*



### *Large Model for Education: Overall Reference Framework Alliance Standard: Leading the Standardized Development of Large Educational Models*

As the first standard released by the World Digital Education Alliance, the "Large Model for Education: Overall Reference Framework Alliance Standard" establishes key design principles for the highly focused field of large educational models. This reference framework provides systematic guidance for the design, development, deployment, and application of large models in various educational contexts. Innovatively, the framework proposes a bottom-up, layer-by-layer supporting five-tier structure: the infrastructure layer, data layer, model layer, interface layer, and application layer. Each layer provides essential support for the layer above it, forming a complete loop in the development and application of large educational models. Notably, the framework considers security, ethics, privacy, and governance requirements as core principles that must be fully addressed at every level of construction and application, ensuring the healthy, secure, and responsible development of educational models throughout their lifecycle.

## Global Digital Education Development Index 2025



—2025世界数字教育大会成果速递—



On May 16, at the closing ceremony of the 2025 World Digital Education Conference, the China National Academy of Educational Sciences officially released the Global Digital Education Development Index 2025 (GDEI 2025). The GDEI 2025 study reveals that the four educational goals advocated by President Xi Jinping in his 2019 congratulatory letter to the International Conference on Artificial Intelligence and Education — "accelerating the development of lifelong education, education for all, education suited to each individual, and more open and flexible education" — have already taken root globally.

### First, building Ecosystems to Support Lifelong Education:

Many countries are systematically developing ecosystems that support education

throughout life. 37.5% of countries have developed AI resources, products, and services for educational applications. Singapore has integrated AI learning tools into student learning spaces, while China has built a national smart education public service platform that supports lifelong learning.

### Sceond, enhancing AI Literacy for All:

Countries are accelerating efforts to improve AI literacy for all, promoting education that is equitable for everyone. 55.6% of countries are creating AI education curricula. The U.S. has launched the "EducateAI" program, providing AI education to both students and adults, while China has integrated AI courses into compulsory education.





**1.Expanded Coverage:** The number of countries assessed has increased from 62 to 72 as evidence continues to grow.

**2.Innovative Methods:** The use of technologies such as large models has aided evidence collection and analysis.

**3.Additional Dimensions:** In addition to the six existing dimensions, a new focus on "AI + Education" has been introduced for in-depth analysis.

Based on the analysis of global digital education development evidence, the overall level of global digital education has steadily improved over the past year, with the global index increasing by 4.54%, and relative rankings remaining stable. With the widespread application of generative AI technologies such as ChatGPT and Deepseek, "AI

+ Education" has become a new trend in global digital education transformation. Over 95% of countries are focusing on this theme, and nearly 80% of countries have released AI strategic plans, with education being a key pillar in national AI strategies. The U.S., China, and South Korea stand out in the development of AI in education, with the U.S. leading in large model technology research and China making strong advances in the application of these models.

Li Yongzhi, President of the China National Academy of Educational Sciences, stated that the GDEI aims to showcase the global landscape of digital education development, explore multidimensional innovative educational scenarios, and present a promising vision of digital education for the world.



Looking ahead, Li proposed eight pathways for advancing digital education, including innovations in educational models, the integration of AI and education, the development of STEM as a strategic focus, and ensuring that AI fosters human-machine harmony. He also highlighted the importance of algorithm governance to ensure that educational technologies contribute positively to society, while addressing the digital divide as a critical factor for educational equity and leveraging collaborative co-creation for high-quality digital education development.



## 筑造教育变革治理基础，助力构建更加开放灵活的教育

### Building Governance Foundation for Educational Transformation to Foster More Open and Flexible Education Systems

**全球图景**  
Global Experience

**50%** 左右的国家建有相关组织机构或政策制度

Approximately 50% of the evaluated countries have established relevant organizations or policy frameworks.




**11.1%** 的国家成立了“人工智能+教育”的专门治理机构

**13.9%** 的国家制定了相关安全治理政策文件

11.1% of the evaluated countries have established dedicated governance agencies for "AI + Education."

13.9% of the evaluated countries have formulated relevant policies on AI safety governance.



**国际案例**  
International Benchmark

欧盟制定了全球首个全面监管人工智能的法规《人工智能法案》，推动着人工智能的规范化发展

The European Union has established the world's first comprehensive regulation on artificial intelligence, the *Artificial Intelligence Act*, promoting the standardized development of AI.



## 数字教育探索的八个路径参考

### Eight Pathways for Advancing Digital Education

**1** 教学思维链创新教育大模型构建理念

Pedagogical thinking chains innovating large educational model construction philosophy

**2** 智能体推动AI与教育深度融合

Intelligent agents deepening AI-education integration

**3** 以数字教学法引领课堂教学范式创新

Leading classroom paradigm shifts with digital pedagogy

**4** STEM创新成为未来人才培养的战略选择

Embracing STEM innovation as a strategic choice for future talent cultivation



**5** 注重以社会情感学习促进人机和谐共生

Promoting human-AI harmony through social-emotional learning

**6** 关注算法治理确保教育技术向上向善

Strengthening algorithm governance to ensure ethical advances of educational technology

**7** 智能鸿沟成为定义教育公平的新变量

Addressing intelligence divide as a new variable in educational equity

**8** 协同共创成为数字教育高质量发展的重要路径

Advancing high-quality digital education development through collaborative co-creation

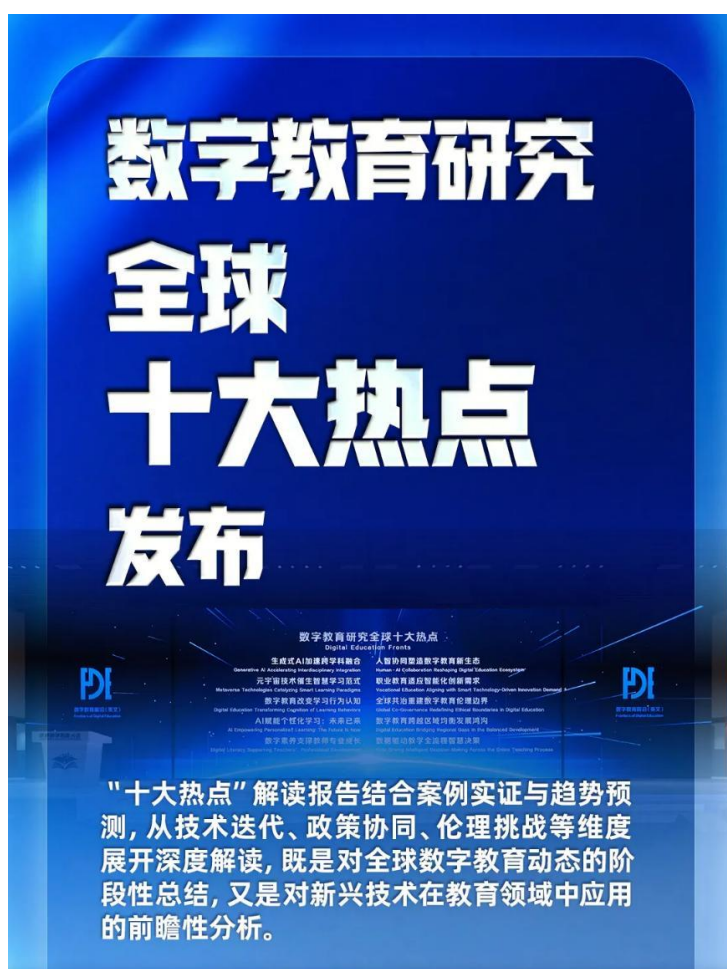


## Digital Education Fronts

On May 16th, the "Digital Education Fronts" was released at the 2025 World Digital Education Conference in Wuhan. This outcome was produced by a task force formed by the Frontiers of Digital Education, in collaboration with relevant data companies, higher education institutions, and research organizations.

The task force, based on data from nearly 60,000 global digital education papers published between 2019 and 2024, selected the Digital Education Fronts through bibliometric analysis and deep insights from interdisciplinary expert teams. The results were compiled into a report. These Digital Education Fronts include:

- Generative AI Accelerating Interdisciplinary Integration
- Metaverse Technologies Catalyzing Smart Learning Paradigms
- Digital Education Transforming Cognition of Learning Behaviors
- AI Empowering Personalized Learning: The Future Is Now
- Digital Literacy Supporting Teachers' Professional Development
- Human-AI Collaboration Reshaping the Digital Education Ecosystem
- Vocational Education Aligning with Smart Technology-Driven Innovation Demands
- Global Co-Governance Redefining Ethical Boundaries in Digital Education
- Digital Education Bridging Regional Gaps in Balanced Development
- Data-Driving Intelligent Decision-Making Across the Entire Teaching Process







## 数字教育研究全球十大热点 Digital Education Fronts

- ◎ 生成式 AI 加速跨学科融合  
Generative AI Accelerating Interdisciplinary Integration
- ◎ 元宇宙技术催生智慧学习范式  
Metaverse Technologies Catalyzing Smart Learning Paradigms
- ◎ 数字教育改变学习行为认知  
Digital Education Transforming Cognition of Learning Behaviors
- ◎ AI 赋能个性化学习：未来已来  
AI Empowering Personalized Learning: The Future Is Now
- ◎ 数字素养支撑教师专业成长  
Digital Literacy Supporting Teachers' Professional Development
- ◎ 人智协同塑造数字教育新生态  
Human-AI Collaboration Reshaping Digital Education Ecosystem
- ◎ 职业教育适应智能化创新需求  
Vocational Education Aligning with Smart Technology-Driven Innovation Demands
- ◎ 全球共治重建数字教育伦理边界  
Global Co-Governance Redefining Ethical Boundaries in Digital Education
- ◎ 数字教育跨越区域均衡发展鸿沟  
Digital Education Bridging Regional Gaps in the Balanced Development
- ◎ 数据驱动教学全流程智慧决策  
Data Driving Intelligent Decision-Making Across the Entire Teaching Process

The interpretation report of the Digital Education Fronts combines case studies and trend forecasts, exploring dimensions such as technological iteration, policy collaboration, and ethical challenges. It provides both a summary of the current trends in global digital education and a forward-looking analysis of the application of emerging technologies in education. The interpretation of Digital Education Fronts will be published in Frontiers of Digital Education.

## Wuhan Initiative on Digital Education Cooperation



### Connecting the World, Cultivating the Future

Artificial intelligence (AI), as a strategic technology leading a new round of technological revolution and industrial transformation, is profoundly changing the way humans produce and live. Digital technologies, particularly those centered on AI, hold immense potential for advancing inclusive, equitable, and quality education, as well as promoting lifelong learning opportunities for all. These technologies are transforming the educational landscape and accelerating the global transition toward smart education. As the world confronts various challenges in peace and development, the World Digital Education Conference calls on the

international community to unite in embracing this new era, setting new standards, and innovating pathways forward. The conference seeks to fast-track the implementation of the 2024 United Nations Summit of the Future's Global Digital Compact, advance progress toward Sustainable Development Goal 4 (SDG 4) on education within the 2030 Agenda, and foster the development of an international digital education community characterized by innovation, security, and inclusivity.

To achieve these goals, the conference proposes the following:

## 1. Build Digital Education Standards and Foster Platform Interconnectivity

We advocate for the establishment of a multilateral and collaborative governance system for digital education, leveraging partnerships with organizations such as UNESCO. This includes developing an international framework for digital education standards; creating cross-border recognition systems; and promoting global interconnectivity in smart education.

Efforts should be intensified to develop specialized large-scale educational models, integrating AI into educational scenarios to drive innovation. Exploration of new educational spaces—such as future schools, classrooms, and learning centers—should be encouraged. Additionally, cross-border systems for building teaching capabilities in smart education should be prioritized, alongside collaborative efforts to develop the teaching workforce of the future and to promote AI education in all school grades and in social general education. Innovative talent cultivation models must be introduced to enhance the digital literacy of citizens, and prepare high-level, multidisciplinary digital talent for the intelligent era.

## 2. Share Quality Education Resources and Promote Factor Exchange

We call for the joint development of multilingual, cross-cultural, and highly adaptable shared

resource repositories. Expanding the membership of the World Digital Education Alliance is encouraged to facilitate the widespread and consistent use of digital textbooks, intelligent assistants, and digital profiling tools.

Collaborative human-machine approaches to creating high-quality digital resources should be explored, with a focus on improving intelligent education products, tools, services, and supervision. Efforts should be made to enhance the accessibility of digital education and assist developing countries in promoting education digitization.

## 3. Promote Smart Transformation in Education and Foster Experience Sharing

We call for extensive international cooperation in AI education to bridge the global intelligence divide. We propose the creation of open-access corpora, open-source models, and shared computational resources to build a collaborative technological service system. Through open-source collaboration, breakthroughs in common technologies for digital education should be pursued.

Collaborative innovation ecosystems for research and development must be constructed. Joint initiatives should focus on establishing platforms for smart education innovation and experimentation, as well as demonstration zones. Conducting joint innovative experiments in smart

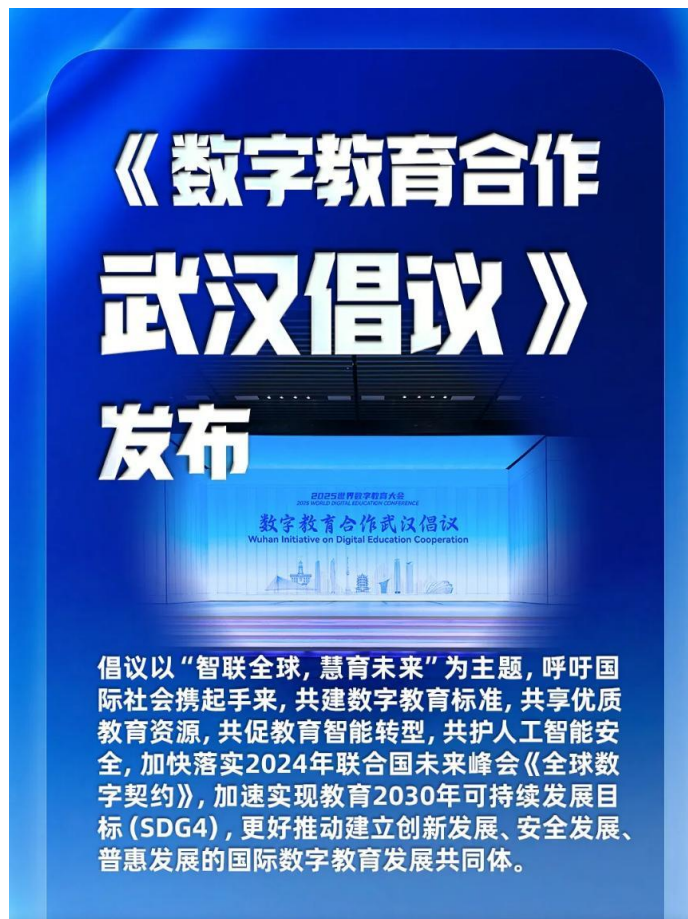


education and identifying effective practices for applying frontier technologies such as AI and big data in education. A regular mechanism for sharing experiences should be established to provide global technical solutions and practical guidelines for educational transformation.

#### 4. Safeguard AI Security and Enhance Connectivity in Shared Values

We emphasize the importance of adhering to the idea of a shared future by prioritizing ethics and a people-centered approach in the development and application of AI. Collaborative efforts should focus on establishing and improving ethical guidelines, standards, and accountability mechanisms for AI applications in education. These measures will ensure the safe, responsible, and equitable use of AI in education.

By addressing these critical areas, the international community can advance collective efforts to harness the transformative potential of digital technologies, ensuring an inclusive, innovative, and secure future for global education.



## The Digital Education Achievements Exhibition at the 2025 World Digital Education Conference



The Digital Education Achievements Exhibition at the 2025 World Digital Education Conference is scheduled to be held from May 14 to 17 at the Wuhan International Expo Center. Aligning with the conference theme "Education Development and Transformation: The Era of Intelligence", the exhibition is themed on "Intelligence Knows No Boundaries, Education Thrives in Symbiosis", highlighting the reshaping of boundaries of education by intelligent technologies, and emphasizing the importance of collaboration in advancing educational equity and quality.

Guided by the principles of "Global Vision, Chinese Essence, and Digital Innovation", the exhibition

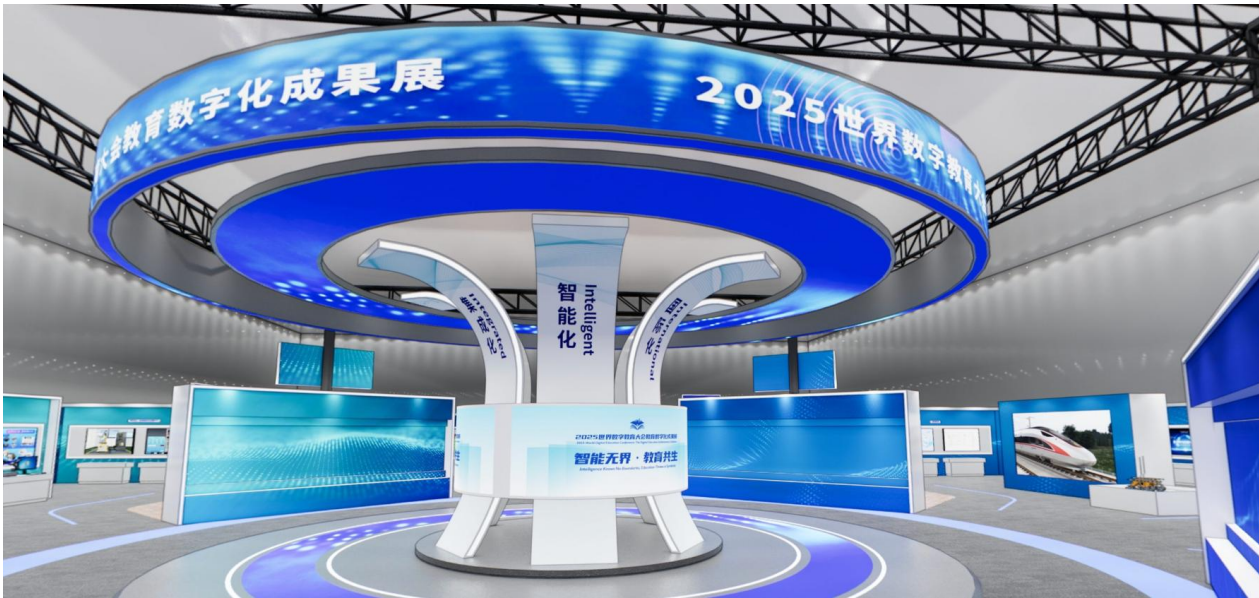
integrates cutting-edge technology with multi-modal interactive experiences to create an immersive, hybrid (online-offline) showcase. A "Prologue-Chapters-Epilogue" narrative structure is adopted for the exhibition, with the "Chapters" section as the core exhibition area, which includes six key thematic zones: Basic Education, TVET Education, Higher Education, Lifelong Education, International Education, and Future Education. The first four thematic zones each feature two sub-sections: "Inception", presenting national strategies and policy outcomes; and "Continuation", highlighting digital teaching practices. Key demonstrations are detailed as below:



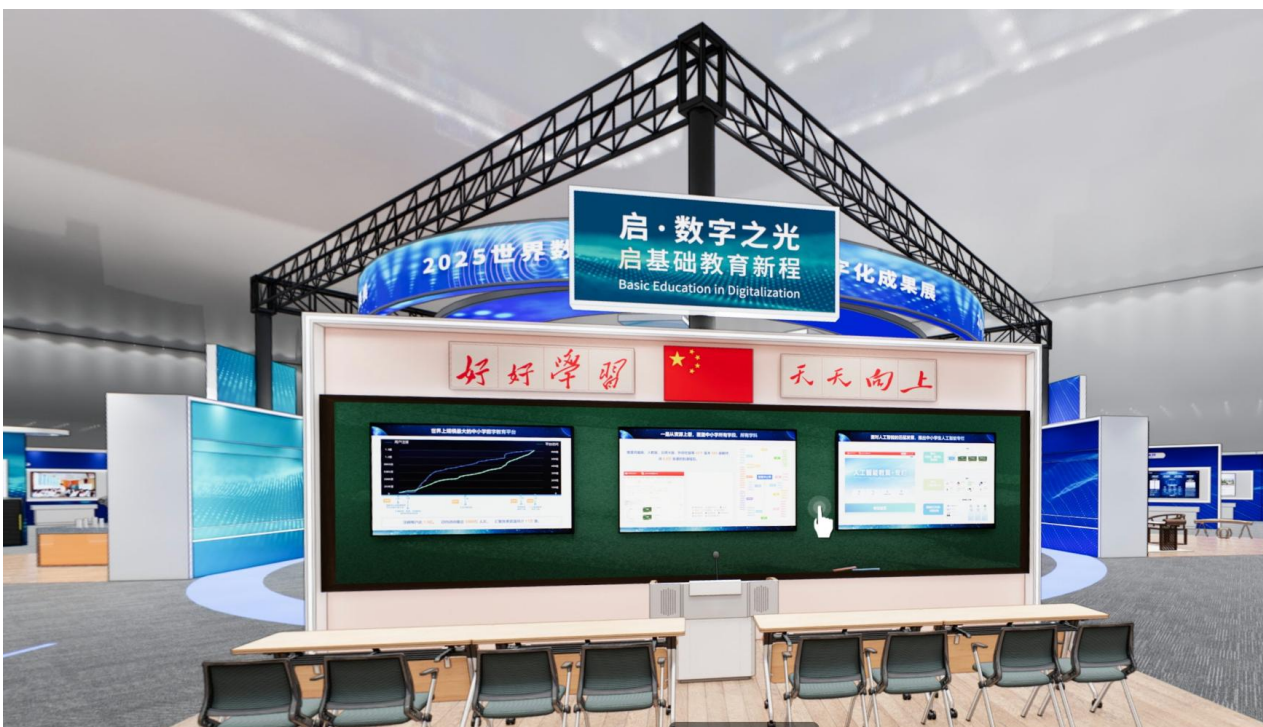
## The Digital Education Achievements Exhibition at the 2025 World Digital Education Conference

Digital Education Achievements Exhibition link:

<https://www.720yun.com/vr/454j57sftm9>



- Basic Education: innovations in teaching scenarios, enrichment of educational resources, digital literacy enhancement, and assessment mechanism reforms.





- TVET Education: skill system development, resource ecosystem sharing, teaching practice collaboration, and industry-education integration.



- Higher Education: research-enhanced teaching, smart campus development, discipline-specific innovation, and the transformation of industry-academia-research-application collaboration.



- Lifelong Education: building a nation of avid readers, diversified applications of technology, care for physical and mental well-being, and efforts to bridge the digital divide.



- International Education: digital education achievements achieved by international organizations, institutions, and enterprises.

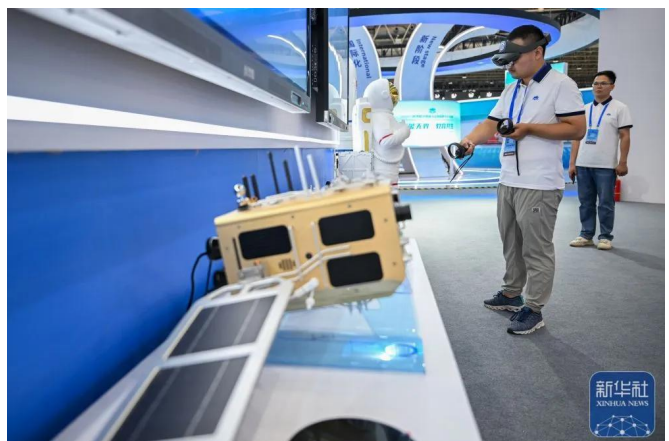




- Future Education: explorations and applications of frontier technologies in education.



During the conference, an online exhibition hall will be launched concurrently, using 3D modeling and panoramic photography technologies to construct a virtual space, featuring functions such as panoramic roaming, AI-guided tours, interactive experiences, and data dashboards. The exhibition will comprehensively showcase the innovative achievements and development trends in digital education, and serve as a crucial platform for advancing educational digital transformation and facilitating international exchanges and cooperation.





# Introduction to WDEA



**世界数字教育联盟**  
**WORLD DIGITAL EDUCATION**  
**ALLIANCE**

The World Digital Education Alliance actively responds to the spirit of the United Nations Transforming Education Summit and the UNESCO 2030 High-Level Steering Committee on Education. It aims to create an important international platform for enhancing dialogue and communication, deepening pragmatic cooperation, and promoting high-quality development in digital education. Centered around the core task of advancing the digital transformation of education, the alliance seeks to establish a long-term mechanism for international cooperation in digital education. It aims to promote the comprehensive participation of all stakeholders in global digital education governance, collectively fostering the digital transformation of education to ensure that everyone has access to more equitable, inclusive, and high-quality education.

## 2023 World Digital Education Conference



Co-hosted by the Ministry of Education of the People's Republic of China and the Chinese National Commission for UNESCO, the 2023 World Digital Education Conference (WDEC) was held in Beijing, China on 13-14 February 2023. With the theme of **"Digital Transformation and Future of Education"**, the conference aimed to facilitate the implementation of the outcomes of the UN Transforming Education Summit, discussed how to promote education recovery in the post-pandemic era and equitable quality education through digital education transformation, and advanced the realization of the United Nations Sustainable Development Goals.

### Call for Global Partnership on Digital Education Development

Facing the opportunities and challenges resulting from digitalization, the WDEC calls for the global partnership to strengthen dialogue and exchanges, deepen practical cooperation and work together to promote the digital

transformation of education and the realization of Education 2030 in the following ways:

1. Strengthen policy dialogue and communication.
2. Improve connectivity through infrastructure construction.
3. Promote the sharing of digital resources.
4. Promote exchange of technology integration and application.
5. Promote cooperation on capacity building.
6. Jointly establish and improve international cooperation mechanisms.

### **Initiative to establish the World Digital Education Alliance**

During the inaugural World Digital Education Conference (WDEC), the initiative of establishing the World Digital Education Alliance (WDEA) was officially launched. The Alliance is committed to establishing a global community in digital education.



## 2024 World Digital Education Conference



### Establishment of the World Digital Education Alliance (WDEA)

On January 30th, 2024, the World Digital Education Conference commenced in Shanghai, focusing on the theme of "Digital Education: Application, Sharing, Innovation."

A noteworthy milestone of the conference was the formal establishment of the World Digital Education Alliance. Delegates from member institutions of the WDEA actively took part in the Inauguration Ceremony, demonstrating

their unwavering support for the alliance.

By now, the Alliance proudly encompasses 115 member institutions spanning 43 countries and regions across the world.

The Alliance will closely focus on promoting the core mission of digital transformation in education, establishing a long-term international cooperation mechanism for digital education, and driving all stakeholders to jointly promote the digital revolution in education. This effort aims to facilitate equitable, inclusive, and high-quality education for all.

## Vision

The WDEA aims to establish an international cooperation platform for high-quality development in digital education. It will focus on the core task of promoting the digital transformation of education, establishing a long-term mechanism for international exchange and cooperation in digital education. The WDEA has the vision to encourage the full participation of all stakeholders in the governance of global digital education. It seeks to promote the development of digital education and the digital transformation of education, ensuring inclusive and equitable quality education and lifelong learning opportunities for all.

## Mission

The WDEA operates on the principles of "voluntarism, equality, and mutual benefit for a win-win situation." Its goal is to enhance the common welfare of humanity. It is dedicated to establishing a global partnership in digital education, strengthening policy dialogue, information exchange, resource openness, and application promotion. The WDEA aims to share experiences and best practices in the field of digital education among all stakeholders. By doing so, it seeks to foster a meaningful integration of digital technology and education, working collaboratively to build a vibrant and resilient global digital education community.

## Scope of Cooperation

### Enhance WDEA members to develop digital education

The WDEA will publish annual reports to share the latest policies and practices of digital education at the national, regional, and school levels with members. It will develop frameworks/guidelines as well as evaluation and monitoring tools to provide members with digital education technical solutions. By conducting

leading international projects, it will offer members public products and services to jointly build and share high-quality digital education resources. It will establish digital training centers to enhance the digital literacy of teachers and students, and collaborate on digital education capacity-building projects for women, girls, and people with disabilities.

### Build an international dialogue platform

Organize high-level policy dialogues and academic conferences to establish a mechanism for digital education dialogue with international influence and appeal.

### Advance the sharing of digital education resources

Gather a selection of high-quality digital educational resources aimed at creating a digital education public platform accessible

to everyone on an equal basis. Improve the alignment of digital education standards, data integration, and the quality of curriculum construction. This task will promote the interconnectivity and co-construction of high-quality educational resources worldwide.

### Conduct thematic research in digital education

The WDEA will conduct a series of research studies in digital education to encourage policymakers, researchers, practitioners, and technical experts from various countries to publish high-quality articles. These articles should timely reflect developments in national policy and cutting-edge academic research in the field.

### Promote the sharing of practical experience of digital education

The WDEA will conduct global digital education monitoring and social experiment research. It will also collect, evaluate, and compile global digital education demonstration cases. The WDEA will enhance the exchange of best practices in the application of digital education, providing reference experiences for the development of global digital education, especially in developing countries. This effort aims to promote the construction of a global digital education community of shared destiny and to jointly create a bright future for education.

## Membership

All WDEA members or their affiliated units should be legal entities. Members should align with the vision and mission of the WDEA and possess relevant expertise and capabilities. Both organization members and individual members are welcomed to join WDEA to contribute to the development of digital education.

Members of the WDEA include, and are not limited to, the following bodies:

- **Educational entities:** including K-12 schools, technical and vocational education and training schools/centers, universities, and colleges.
- **Relevant organizations:** and research institutions, including inter-governmental organizations, international organizations, and think tanks.
- **Relevant enterprises:** including general technology companies and educational technology companies.

## Organizational Structure

The management structure of the WDEA consists of the General Assembly Meeting, Executive Council, and Expert Advisory Committee and Secretariat.

- **WDEA General Assembly Meeting** is the highest decision-making body of the WDEA



responsible for electing the Executive Council and making decisions on major issues. The meeting shall be attended by the leader or representative of the member organization.

- **Executive Council** shall be elected by the General Assembly Meeting and shall serve as the governing body of the General Meeting, leading the WDEA in its collaborative contents during the recess of the General Assembly Meeting, and shall be responsible to the General Assembly Meeting. The Executive Council shall hold at least one meeting per year; in special circumstances, meetings can be held via correspondence. Special meetings can be convened based on the proposal of the chairperson.
- **Expert Advisory Committee** of the alliance shall be composed of renowned experts, scholars, and industry representatives in the field of digital education, nominated with the support of member organizations.
- **WDEA Secretariat** The WDEA operates under a system where the Secretary-General is responsible under the leadership of the Executive Council. The WDEA Secretariat serves as the executive body and is responsible for the daily operations of the WDEA, including the implementation of decisions made by the General Assembly Meeting and Executive Council.

# Milestones of Educational Transformation in the Intelligent Era: Observations and Reflections from the 2025 World Digital Education Conference

**Abstract:** Digital technologies are being integrated into education at an unprecedented speed and in unprecedented ways. At present, the priority is to grasp the trends of educational development in the intelligent era and deepen international cooperation in digital education. As a pivotal platform for global educational exchange and collaboration, The World Digital Education Conference (WDEC) plays a fundamental role in advancing educational innovation. This article provides an interpretation of its milestone significance by synthesizing key insights from the 2025 WDEC. More concretely, elevating the competencies of teachers and learners, alongside innovating educational scenarios, has emerged as a global consensus. A three-year strategic initiative for educational digitalization in China has established a practical paradigm for global digital transformation in education. The launch of Strategic Action 2.0 in the inaugural year of smart education signifies a new epoch in the journey of educational digital transformation in China. Through a series of initiatives hosted in Beijing, Shanghai, and Wuhan, China has

catalyzed a transformative progression in digital education cooperation- evolving from propositional frameworks to institutionalized entities- and thus assumed a leadership role in global educational transformation. Looking forward, the international community must collectively translate the vision of "large-scale personalized education" into equitable practices, uphold the essence of education through the dialectical unity of technological empowerment and human-centered principles, and navigate the "deep waters" of reform by deepening international collaboration in digital education. Through such efforts, nations can jointly forge a new future for human educational civilization amid the technological tide.

**Keywords:** World digital education conference; Intelligent era; Educational transformation; Digital transformation in education; Smart education

## I. Introduction

As a driving force behind the global scientific and technological revolution and industrial transformation, digital technology is increasingly integrated into all aspects of economic and social development, profoundly reshaping modes of production, lifestyles, and social governance. This wave of transformation also presents both unprecedented challenges and opportunities for education. To shape a peaceful, just, and sustainable future, what education urgently requires is transformation—not mere reform—so that today's learners are well-prepared for a rapidly changing world. In the era of intelligence, education has reached a stage where its foundational logic is being redefined, and its entire ecosystem reshaped. Digital education, with its inherent advantages of equity, inclusiveness, openness, and sharing, offers a promising avenue to explore the question: "What should education be in the age of intelligence?" In this context, global collaboration and exchange have become indispensable pathways for educational transformation.

As a public good, the World Digital Education Conference (WDEC) serves as a world-class platform dedicated to exploring educational

transformation in the age of intelligence.

Chinese Vice Premier Ding Xuexiang emphasized the need to jointly build a high-level international open cooperation system for digital education, enhance strategic and policy coordination among nations, and accelerate the formation of a new framework for global collaboration. Since 2023, China has consecutively hosted the WDEC, gathering top-tier experts from governments, educational and research institutions, major international organizations, and various sectors, establishing a globally influential flagship platform for exchange. The 2023 WDEC was held in Beijing under the theme "Digital Transformation and Future of Education

." In 2024, the conference took place in Shanghai, centered on "Digital Education: Application, Sharing, Innovation." The 2025 WDEC, held in Wuhan with the theme "Education Development and Transformation: The Era of Intelligence." marks the first major international conference organized by the Ministry of Education of China following the release of The 2024-2035 master plan on building China into a leading country in



education. The event brought together ministers of education, representatives of international organizations, education experts, scholars, entrepreneurs, and delegates from educational institutions and NGOs from more than 80 countries and regions to jointly explore emerging trends, challenges, and opportunities in education in the age of intelligence.

With its grand scale and diverse formats, the conference hosted high-level plenary sessions and ten parallel sessions on various themes. It also launched a series of landmark achievements in education digitalization, including the White Paper on China's Smart Education, the Proposal for the Establishment of an International Digital Education Standards Framework, the Global Digital Education Development Index 2025, the Digital Education Fronts, and the Wuhan Initiative on Digital Education Cooperation.

Observing and reflecting on the WDEC provides valuable insights into the cutting-edge developments in educational transformation in the era of intelligence. Whether focusing on the empowering value or the ethical risks of integrating intelligent technologies into education and teaching, a wide range of academic studies and media reports have engaged in multi-dimensional and multi-level discussions. Rather than offering general statements from the perspectives of student growth, teacher development, school

management, or the various stages of "teaching, learning, management, assessment, and research," this article adopts a global and historical lens to examine the WDEC. It focuses on the conference's key viewpoints, outcomes, and distinguishing features to systematically analyze its milestone significance. Through this analysis, it aims to provide a comprehensive understanding of educational development in the intelligent era and offer valuable references for future research and practice.



## II. Building Consensus: Upgrading Student and Teacher Competencies and Innovating Educational Scenarios

From the perspective of educational transformation in the age of intelligence, the reconstruction of student and teacher competencies and the innovation of educational scenarios have become a shared consensus and common concern across all sectors of society. This conference covered a wide range of topics, including basic education, vocational education, higher education, lifelong learning, teacher education, and AI in education. An analysis of keynote speeches and presentations reveals that student and teacher competencies, along with educational settings, were among the most frequently discussed themes. Through policy explanations, case studies, and academic dialogues, participants from various countries deeply explored the underlying logic of educational transformation in the intelligent era: a shift from knowledge transmission to cognitive empowerment, from experience-based practices to data-driven approaches, ultimately aiming to cultivate higher-order thinking and the ability to solve complex problems. The goal is "competency upgrading," while the manifestation is "scenario innovation." Scenarios provide fertile ground for competency development, while competencies inject vitality into the deepening of these scenarios.

### (1) Competency Upgrading: Redefining Competency Frameworks for Students and Teachers in the Age of AI

John Edward Hopcroft, an American theoretical computer scientist stated that we are entering a new information era that is reshaping both the nature of work and education, and that cultivating high-quality talent capable of adapting to the AI age is critical. As highlighted in the World Economic Forum's Future of Jobs Report 2025, trends such as generative AI and rapid technological change are disrupting industries and labor markets, with nearly 40% of core job skills expected to change.

As AI continues to surge, the competency frameworks for teachers and students are being restructured—not a total overhaul, but rather adaptive additions, removals, and recalibrations of emphasis within existing frameworks. The internal logic lies in the evolving influence of technologies like AI on thinking patterns, behavior, social interactions, and production methods. As the boundary between humans and machines blurs, and humans take on more auxiliary or observer roles in certain tasks, both teachers and students must maintain human

agency and subjectivity, which raises the bar for self-directed learning, critical thinking, and more.

From a student competency perspective, beyond communication, collaboration, and innovation, greater emphasis must be placed on adaptability, discernment, and learning agility. First, adaptability—the ability to adapt to and innovate with intelligent technologies. New Zealand Ambassador to China, Jonathan Austin noted that "smart technology has become an inseparable part of every individual's learning journey." Kongratbay Sharipov, Minister of Higher Education, Science and Innovations of the Republic of Uzbekistan, emphasized that future engineers must be able to work collaboratively with AI. Wang Fazhou, Vice President of Wuhan University of Technology, believes that students must possess collaboration, critical thinking, innovation awareness, complex problem-solving, computational thinking, interdisciplinary skills, and green competencies to meet the demands of sustainable development and the intelligent age. Joaquín Goyache Goñi, Rector of Complutense University of Madrid, stressed the need to strengthen humanities education so that students, while embracing digital technology, remain connected to and reflective about the real world, socially engaged, and capable of teamwork and interpersonal communication.

changed. In the intelligent era, knowledge is more accessible than ever, but filtering, analyzing, and applying information—while maintaining independent and critical thinking—has become a core component of talent development.

Third, learning agility—the ability to continuously and autonomously acquire knowledge to meet challenges. Song Yonghua, Rector of the University of Macau, noted that the goal of education is not merely to help students land their first job but to enable them to continuously learn and overcome future challenges throughout life. Huang Ronghuai, UNESCO Chair in Artificial Intelligence and Education and Director of the International Joint Laboratory for AI and Education Planning, emphasized that learners in the intelligent era must not only master AI tools but also cultivate initiative, lifelong learning, and flexible employment capabilities.

For teachers, role transformation is imperative. The intelligent and digital transformation of education demands that teachers effectively integrate AI into teaching and learning systems. John Edward Hopcroft questioned, "If AI can help students find the right answers, what should teachers be teaching?" He emphasized the need for teachers to focus on developing students' thinking. Rongyu Li is Deputy Vice-Chancellor and Vice-President (Global Engagement) of The University of Queensland, warned against the



risk of teacher competencies falling out of sync with the times and urged the cultivation of digital thinking and skills, particularly for addressing AI-related security and ethical issues. Zhu Jun, Deputy Director of the Wuhan Municipal Education Bureau, likened future teachers to "light-bearers for students' spiritual worlds, ferrymen for their knowledge journeys, and guides in their practical exploration." On one hand, teachers must consciously adapt to new tools in instruction, assignments, and assessments. Sarjoh Aziz-Kamara, Deputy Minister of Technical and Higher Education of Sierra Leone, stated that "teachers must serve as engines for sustainable development in the intelligent era—a shared mission for humanity." On the other hand, teaching methods must evolve. Professor Xiong Zhang of Beihang University explained that "traditional models where teachers lecture and students listen must give way to approaches where teachers lead students into the world of AI and facilitate autonomous learning." Wuchang Shuiguohu No. 2 Primary School in Hubei has developed a digital-intelligence training curriculum to help teachers shift from mere users of AI tools to designers of AI-enabled education. The role of educational leaders is also crucial in this transition. Nigel Haskins, Vice Chancellor of Newcastle University in the UK, emphasized that university leaders must not only enhance the AI literacy and skills of faculty and staff but also empower teachers to become technology shapers and change agents.

## (2) Scenario Innovation: Comprehensive Empowerment of Education Through AI

The rapid advancement of AI offers endless possibilities for educational scenario innovation, transforming the very form of education through ubiquitous applications. This topic sparked widespread and in-depth discussion throughout the 2025 World Digital Education Conference, from parallel sessions to the digital education showcase. AI has increasingly permeated all facets of teaching, learning, management, assessment, and research, empowering student growth, teacher development, and school operations. At the institutional level, AI as a service (AlaaS) is forming a network of ubiquitous human-object-object connections, enabling real-time data sensing, seamless flow, and comprehensive analysis. For individual teachers and students, it facilitates human-AI collaborative learning and work, offering personalized, customized, and real-time proactive services.

The deep integration of AI into educational settings is now marked by distinctive features, evolving from conceptual ideals to tangible designs and systemic implementations. Higher education leads this transformation, vocational education faces urgent reform needs, and basic education is steadily advancing under robust policy guidance. In higher education, Zhao Huajie, Vice Chancellor of Brunel University London, reported that 92% of UK university

students use AI, with 88% using generative AI for tasks such as literature summarization and experiment design. Nanyang Technological University in Singapore offers a doctoral course titled "AI + Research," which strengthens students' engineering capabilities through interdisciplinary project-based learning. Beihang University is exploring a digital-physical blended platform called Lunar-X for lunar research base education, featuring a closed-loop digital learning path encompassing cognitive construction of digital textbooks, preliminary virtual simulation experiments, and offline validation.

In vocational education, He Baohua, President of Wuhan Technical University, advocated for rebuilding the knowledge supply chain with AI to accelerate curriculum transformation and graduate job readiness. He called for redesigning the learning equation, positioning teachers as instructional designers and emotional guides, and reconstructing evaluation systems to meet the demand for personalized, multidimensional assessments. Shenzhen Polytechnic University developed a future-classroom blueprint by integrating holographic projection and digital twin technologies into immersive blended learning, AI-powered adaptive learning, virtual-physical collaborative training, and digital evaluation scenarios.

In basic education, Shenlong Primary School in Wuhan's Economic and Technological Development Zone offered a course titled "AI Mars Rover Rescue Challenge," combining AI with project-based learning to engage students in collaborative inquiry. Using VR devices, students experienced Martian landscapes, modeled and 3D-printed rover badges, and used AI to design the vehicle's appearance. At Shenzhen Hongling Middle School, a system integrating knowledge graphs and cognitive models analyzes students' mistakes to generate personalized micro-course packages. In lifelong learning, the Open University of China showcased an AI calligraphy analysis system that compares user input with classical scripts. Hubei Open University introduced the AI companion "Hu Kaikai" to provide 24/7 interactive learning services. With a division of labor between human-designed frameworks and digitally executed instruction, this platform shortened exam preparation cycles by 30% and improved pass rates by 18%. These innovations illustrate how digital technology is evolving from an auxiliary tool into a key element reshaping the educational production relationship.

### III. Advancing Action: China's Strategic Practice in Education Digitalization

Since 2022, China has launched the "National Strategy for Education Digitalization," focusing on expanding and optimizing digital school environments, enhancing the supply of quality resources, and deepening large-scale, normalized application. Substantial progress has been achieved. Chinese digital education is transitioning from parallel phases of transformation and upgrading into the era of smart education at an accelerated pace. This has laid the foundation for a modern digital education system oriented to the intelligent age, offering a vital model for global education digitalization. Within this process, the World Digital Education Conference serves not only as a key initiative of the strategy but also as a platform to share China's solutions.

#### (1) Three-Year Review: A Practical Model for Global Digital Education Transformation

China attaches great importance to digital education. President Xi Jinping pointed out that "education digitalization is a vital breakthrough to develop new tracks and new advantages in education." In 2022, China launched its National Education Digitalization Strategic Action, introducing the "3C" concept: Connection, Content, and Cooperation. Guided by the principles of

"application-oriented, service-first, efficiency and simplicity, and secure operation," the country has made systemic breakthroughs in infrastructure, resource integration, and international cooperation, shaping a Chinese paradigm of digital education transformation. According to the Global Digital Education Development Report, China's ranking jumped from 24th in 2023 to 9th in 2024, moving up 15 places.

Three core features define China's 2022–2024 strategy: the national platform, AI applications, and international collaboration. First, the world's largest education resource center was established and deeply applied nationwide. The national platform has become a comprehensive hub for education digitalization. Launched in 2022, the platform evolved from a "3-horizontal and 3-vertical" to a "4-horizontal and 5-vertical" architecture, reaching over 60.8 billion visits and 163 million registered users. It now features "four sub-platforms, one hall, one special section, and one dedicated zone," forming a "1+N" network nationwide, supporting billions of educators and learners with high-quality digital resources. Second, China is actively exploring the integration of AI and education. The Ministry of Education has



launched multiple forward-looking initiatives: the AI-Empowered Education Action, selection of 184 AI education pilot schools, two batches of 50 exemplary "AI + Higher Education" application cases, teacher workforce development through AI, and the "101 Plan" in AI talent cultivation. Third, China is enhancing its role in global digital education governance. This includes hosting the World Digital Education Conference, the World MOOC and Online Education Conference, and the Global Smart Education Conference; establishing the World Digital Education Alliance and the Global Smart Education Cooperation Alliance; and launching the international version of the national platform—contributing ever more to global progress.

## **(2) The Year of Smart Education: Launching China's National Strategic Action For Digital Education 2.0**

At the opening ceremony of this year's conference, Minister of Education Huai Jinpeng stated: "We have entered an intelligent era where education must reshape its foundation, reconfigure its ecosystem, co-create and share resources, bridge the digital divide, restructure competency development, and promote inclusive global collaboration and mutual learning." The release of the White Paper on China's Smart Education and the Launch of

China's National Strategic Action For Digital Education 2.0 were key outcomes of the 2025 World Digital Education Conference. These milestones signify a new phase of digital education in China, and a roadmap for future development.

Smart education is the advanced stage of digital education and a cornerstone for transformation. It goes beyond technology to drive systemic change in educational philosophy, models, and structures. As a new form of education in the digital era, smart education ensures inclusive and quality education and lifelong learning for all. In 2018, the Education Informatization 2.0 Action Plan proposed an initiative for smart education innovation. In 2019 and 2020, the Ministry of Education designated 18 Smart Education Demonstration Zones and two pilot areas, launching model projects. These zones have since pursued six major tasks: improving digital literacy, innovating teaching models, enhancing competency-based assessment, building personalized support systems, boosting regional resource supply, and modernizing governance capacity.

The White Paper on China's Smart Education is the first white paper from the Ministry of Education focused on smart education. It systematically outlines China's digital education journey, highlights achievements since the 18th CPC National Congress, and proposes strategies and practices for future development.

According to Shu Hua, deputy director of the ministry's Department of Science, Technology and Informatization, the white paper not only summarizes China's experience but also provides future-oriented plans across three dimensions: technology empowerment, ethical governance, and system restructuring. It includes four sections: development process, strategic vision, practical exploration, and future outlook. The development section traces China's proactive and adaptive journey. The strategy section proposes strengthening top-level planning, building a smart education framework, enhancing the national platform, promoting AI-empowered actions, and deepening international cooperation. The practice section showcases regional and school-level initiatives in AI talent training, tech-enabled applications, governance mechanisms, and foundational capacity building. The outlook section declares 2025 as the inaugural year of smart education and calls for new standards and high-quality pathways to meet the challenges of the next phase.

Looking ahead, China will advance from the 3C model (Connection, Content, Cooperation) to the "3I" strategy: Integrated, Intelligent, and International. It will also rely on the "3N" framework: New Stage, New Standard, New Ways, to drive systemic transformation. First, innovate educational philosophy and enter a

new stage of smart education. Smart learning environments will enable always-on classrooms and high-level public services for lifelong learning. AI will reduce disparities across regions, urban and rural areas, schools, and demographics. Personalized learning plans and cross-boundary educational communities will ensure inclusive, lifelong, and flexible education for all. Second, update educational content and establish new standards for talent development. This includes strengthening foundational skills, fostering moral, intellectual, physical, aesthetic, and labor development, enhancing higher-order thinking and critical abilities, and building AI literacy and ethical awareness. Third, build the future elements and explore new transformation pathways. This involves empowering teachers with new roles and missions, building AI-enhanced classrooms, integrating intelligent tech into management and decision-making, and establishing learner-centered, responsive, multimodal Future Learning Hubs.

## IV. Transformative Leadership: Building a Global Community for Digital Education Cooperation

Through international cooperation in digital education, China is playing a leading role in advancing global education transformation in the intelligent era. As Jacques Frémont, President of the University of Ottawa, remarked: "When facing challenges, countries around the world must join hands. China is assuming a leadership role on this path of global collaboration and shared development, building bridges for international dialogue. The World Digital Education Conference is a prime example of such efforts."

### (1) Mechanism Building: Advancing Cooperation from Beijing to Shanghai to Wuhan

Education shapes and transforms the future. Global openness and cooperation in the field of education are of vital importance to humanity. Building an "International Community for Digital Education" is the starting point for jointly responding to social transformation and educational reform in the intelligent era. A sustainable community requires the construction of "Five Ones": one alliance, one set of standards, one team, one brand, and one series of monitoring initiatives. These include: (1) establishing a cooperative matrix for

education digitalization transformation; (2) co-developing a set of standards related to technology, services, and quality in digital education; (3) cultivating a team for international cooperation in education and technology—capable of academic, technical, and administrative leadership, well-versed in international organizations and multilateral diplomacy; (4) creating a recognizable global brand for the World Digital Education Conference; and (5) releasing a series of annual global digital education monitoring reports.

From Beijing to Shanghai to Wuhan, China has used the World Digital Education Conference as a platform to gradually build an international cooperation mechanism for digital education, transitioning from action-based initiatives to institutionalized structures. The Initiative for Global Cooperation on Digital Education Development released at the 2023 conference explicitly called for the establishment of cooperation mechanisms and the creation of the World Digital Education Alliance to forge a comprehensive, pragmatic, and inclusive high-quality partnership. The Shanghai Initiative on Digital Education Cooperation in 2024 further proposed joint development and sharing of



digital resources, strengthened collaboration on application practices, enhanced integration and innovation in digital education, coordinated efforts for teacher capacity building, joint research in digital education, and co-governance of digital education. At this year's conference, the World Digital Education Alliance was officially established, with a governing council and a secretariat responsible for daily operations and organizing activities. The Alliance serves as a hub for global digital education collaboration. As of May 2025, it has attracted 115 members from 43 countries and regions, including universities, international education organizations, research institutions, and enterprises. The Wuhan Initiative on Digital Education Cooperation released in 2025 emphasized the joint development of digital education standards and platform interconnectivity; shared access to high-quality educational resources and synergistic coordination of core elements; collaborative advancement of intelligent transformation in education and mutual learning from experience; and joint safeguarding of AI security and cross-border alignment of guiding principles. During the conference, the WDEA's First Executive Council meeting and the 2025 General Assembly Meeting were held successfully, approving the revised draft of the World Digital Education Alliance Charter and the World Digital Education Alliance's 2024 Work

Summary and Future Work Plan. Beijing Normal University was named the founding Chair institution, with the joint secretariat established by BNU and the China Education Association for International Exchange, marking the official launch of the Alliance's governance mechanism and a new phase of regularized and standardized operation. Daniel Rojas Medellín, Minister of Education of Colombia, stated that China's vision of building an open international digital education system is one Colombia hopes to join.

## **(2) Ecosystem Development: Promoting Standardized Practice through Technical Frameworks**

A key step in deepening international cooperation in digital education is leading the development of an international standard system for digital education governance. Standardization is essential for sharing digital resources, assessing digital competencies, and enabling intelligent learning environments. It holds the key to unlocking the full potential of digitally connected education. Specifically, the standard system should include: (1) technical standards, which are foundational, generalizable, and pioneering—covering platform architecture, access gateways, information security, data exchange, knowledge graphs, and intellectual property management; (2) quality standards,

which assess the value, efficiency, and effectiveness of digital applications—covering digital textbooks, online courses, learning interactions, learning assessments, project evaluations, and quality management; and (3) service standards, covering aspects such as learning environments, learner support, technical services, content ownership, paid knowledge services, and training certification.

During the 2025 World Digital Education Conference, two milestone documents on education digitalization standards were released: the "Proposal for the Establishment of an International Digital Education Standards Framework" and the "Large Model for Education – Overall Reference Framework Alliance Standard". The Proposal, initiated by the Secretariat of the World Digital Education Alliance, holds significant importance. It calls on Alliance members to work together to build an "open, inclusive, and sustainable" digital education standards system, guiding the standardized application of digital technologies across member institutions, promoting the sharing of educational resources and technological co-innovation, and advancing global educational equity and quality. The International Digital Education Standards Framework 2025 provides clear guidance for the future development of Alliance standards and the regulated use of digital technologies within member organizations, contributing to

equitable and high-quality education worldwide. Its core logic recognizes that the digital education ecosystem is a complex system composed of key elements such as participants, activities, and environments. The framework comprises ten functional domains—including terminology and system architecture, stakeholders, activities and processes, and data—as well as three operational tiers: general technical standards, application-level standards, and business specifications.

As the first official standard issued by the World Digital Education Alliance, the "Large Model for Education – Overall Reference Framework Alliance Standard" establishes key design principles for this rapidly evolving field. It offers a comprehensive guide for the design, development, deployment, and application of foundational models in educational contexts. The framework innovatively introduces a bottom-up, five-layer architecture: infrastructure layer, data layer, model layer, interface layer, and application layer. Each layer provides essential support for the next, forming a closed-loop logic for the development and implementation of educational foundational models. Notably, the framework places ethical considerations, security, privacy, and governance at its core, emphasizing that these principles must be fully integrated into every stage of the system's lifecycle to ensure its safe, responsible, and sustainable evolution. This standardization

achievement received strong recognition from the International Organization for Standardization (ISO). Professor Jon Mason, Chair of ISO/IEC JTC1 SC36, traveled to China to attend the release ceremony and praised the accomplishments of the Chinese standardization committee. This milestone not only demonstrates China's leadership in digital education standardization but also marks the transition of global digital education cooperation into a new phase of formalization and systematization. To encourage broad implementation of these standards, the conference also invited Alliance members to reference the international framework and actively explore localized, context-specific paths for standardization based on their own needs and circumstances.

In summary, the 2025 World Digital Education Conference has enabled China to play an active role in shaping global rules in emerging areas such as artificial intelligence, education ethics, and the co-development and sharing of high-quality digital resources. The 2025 conference not only created new opportunities and platforms for global cooperation in digital education but also achieved significant progress in institutional and ecosystem development. With continued advancement of cooperative mechanisms and standard systems, digital education worldwide is steadily moving toward more structured, standardized

development. Looking ahead, as countries deepen their collaboration and commitment to digital education, the global transformation of education will progress with even greater momentum and resolve.





## V. Conclusion and Outlook

As artificial intelligence profoundly reshapes the educational ecosystem with disruptive force, the 2025 World Digital Education Conference, themed "Education Development and Transformation: The Era of Intelligence," convened global stakeholders for an in-depth dialogue on technology-empowered educational ecosystems. This international gathering served as a strategic compass for educational transformation in the era of intelligence. First, it demonstrated the transition of the vision of "personalized learning at scale" into inclusive practice. Second, it emphasized the dialectical unity of "technology empowerment and human-centeredness" as the essence of education. Third, it underscored the importance of deepening international cooperation in digital education to collectively build a new human-centered educational future in the digital age.

### 1. Core Vision: Realizing Personalized Learning at Scale

Empowering personalized learning at scale through intelligent technologies has become a shared aspiration among education researchers and practitioners. The 2024-2035 master plan on building China into a leading country in education explicitly calls for exploring effective pathways to achieve large-scale, personalized, and

innovative teaching through digital empowerment and adapting to the transformation of learning styles. The possibility of unifying scale, quality, and personalization in education—once considered an "impossible triangle"—is now within reach thanks to digital technologies such as AI and big data. Historically, education emphasized "education for all"—ensuring universal access to basic learning opportunities. In the AI era, the focus must shift to "education for individuals," offering tailored educational services to support each learner's holistic development. With the deep integration of intelligent technologies, education is evolving from a standardized, industrial model to a personalized ecosystem, achieving the leap from "one-size-fits-all" to "one-student-one-plan." This transformation marks a paradigmatic shift from mass education in the industrial era to precision learning in the digital age. For instance, Cai Lei, Principal of Beijing Guangqumen Middle School, emphasized that AI is not only a tool but a lever to realize the age-old ideal of personalized instruction. Li Hua, principal of Shuren Jingrui Primary School in Shapingba District, Chongqing, highlighted their efforts to integrate AI into every subject area, ensuring the practical implementation of personalized learning at scale within the core national curriculum.

Looking forward, a new educational civilization centered on the learner is emerging—both a reflection of national strategic intent and an inevitable milestone in the evolution of human education. However, it is important to acknowledge the considerable gaps that still exist in realizing this vision, including entrenched educational practices, technological limitations, and institutional inertia. A more profound understanding is needed of how students develop in the age of intelligence, the division of roles between human teachers and AI, the dynamics of teacher-student-machine interactions, and the genuine educational benefits such models can yield. These questions call for coordinated efforts from educators, researchers, and technologists alike.

## **2. Guiding Principle: Dialectical Unity of Technology Empowerment and Human-Centeredness**

The ultimate goal of education digitalization is not the technology itself, but the holistic development of human beings. It is a deeply humanistic endeavor. As Yang Zongkai, chair of the ministry's national expert committee on education digitalization, emphasized: "Technology empowerment must resonate with the essence of education." While the value of technology in promoting equity, continuity, and

efficiency is clear, it also introduces challenges such as the digital divide, data privacy concerns, and algorithmic bias. Reynaldo Velázquez Zaldívar, Vice Minister of Higher Education of Cuba, warned that without concerted action to address the ethical, cybersecurity, and equity challenges posed by digitalization, progress will be stalled. Therefore, in the process of AI-driven educational transformation, it is essential to avoid the trap of "technological determinism" and remain grounded in the pursuit of "AI for Good." Zhou Hongyu, Vice President of the Chinese Society of Education, cautioned against risks stemming from the absence of humanistic care and value-based guidance, the marginalization of human intelligence, the misuse of AI technologies, and the erosion of educational ecosystems. Ren Xianliang, secretary-general of the World Internet Conference, offered concrete recommendations: strengthening the protection of educational data security, developing localized and sustainable capacity-building strategies, and advancing multilateral international governance mechanisms to collectively address emerging risks and promote sustainable development.

## **3. Strategic Path: Deepening International Digital Education Cooperation to Navigate the Deep Waters of Transformation**

In the face of rapid and irreversible technological transformation, global education is undergoing a structural shift and entering the "deep waters" of reform. The unpredictable evolution of intelligent technologies is accelerating systemic change in education, while education systems themselves are actively responding to these external disruptions. The resulting tensions highlight the uncertainties and complexities of educational transformation in the AI era, which can only be addressed through cooperation. Challenges include disparities in digital infrastructure, varying stages of education digitalization, diverse sociocultural and institutional contexts, inconsistent technical and resource standards, and growing concerns over personal data privacy due to technological acceleration and data proliferation. Minister of Education Huai Jinpeng stressed that the fundamental question of "What is education in the age of intelligence?" is a shared global challenge requiring collective reflection and response. He reaffirmed China's commitment to using digital education as a bridge for international collaboration, setting new standards, opening new pathways, and advancing shared development and transformation. Miao Fengchun, Chief of the Unit for ICT in Education at UNESCO, noted that China has boldly entered the "uncharted territory" of AI in education. "If you want to go fast, go alone; if you want to go far, go together." Looking ahead, deepening global cooperation in digital education is both an inevitable trend and a critical breakthrough. China, together with countries around the world, is working to build an open,

inclusive, equitable, and secure global digital education ecosystem. Pia Rebello Britto, Global Director of Education and Adolescent Development, UNICEF, acknowledged China's leadership, transformative capacity, and innovation in the digital education domain. Barry Clark Barish, an American experimental physicist and Nobel Laureate emphasized that AI is propelling education into a new phase of development and praised the World Digital Education Conference for providing a vital platform for civilizational dialogue. With the release of the the Wuhan Initiative on Digital Education Cooperation, the baton has been successfully passed from Beijing to Shanghai to Wuhan. The global education community is now co-creating a multilayered framework for digital education collaboration. On the one hand, the development of technical standards is promoting regulatory consistency; on the other hand, joint laboratories and cross-border platforms for sharing digital resources are helping address regional disparities. This model not only accelerates the diffusion of technologies and ideas but also offers a new paradigm for global education governance. Ultimately, only through open, inclusive, and mutually beneficial cooperation—by co-creating rules, sharing knowledge, bridging divides, and confronting shared challenges—can the world fully realize the promise of digital education and ensure that the benefits of intelligent-era education are shared by all humanity, advancing the vision of a shared future for mankind.



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## WORLD DIGITAL EDUCATION ALLIANCE

The World Digital Education Alliance is committed to establishing a global community in digital education. It aims to encompass the enhancement of dialogues and exchanges, the cultivation of practical collaborations, the establishment of a sustainable international cooperation mechanism, and the facilitation of the high-quality progression of digital transformation in education.