2025
全球智慧教育大会
Global Smart Education Conference

Synthesis Report

# Global Smart Education Conference 2025

## Human-AI Collaboration:
## Reshaping the Educational Ecosystem for the Future

**18-20 August 2025**

## Beijing Normal University

Beijing Normal University (BNU) grew out of the Education Department of Imperial University of Peking established in 1902, which initiated teacher training in China's higher education. After the development for over a century, BNU has become a comprehensive and research-intensive university with its main characteristics of basic disciplines in sciences and humanities, teacher education and educational science.

## UNESCO IITE

The UNESCO Institute for Information Technologies in Education (UNESCO IITE) was established as an integral part of UNESCO by the General Conference of UNESCO at its 29th session (November 1997). IITE is the only UNESCO category 1 Institute that holds a global mandate for ICT in education.

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**Be in awe of education, for it shapes the soul of human,**

**Be cautious to technologies, for its adoption has to be effective,**

**Be entangled with Smart, for the uncertainty tends to be increasing,**

**Be serious to academies, for the true research needs evidence.**

# Foreword

Standing at the historical starting point of "the inaugural year of smart education", the digital transformation of education is ushering in a key breakthrough. As the "ideal" model of education reform and development in the era of intelligence, smart education is the target form of education digital transformation. To build a community of destiny for smart education, it is necessary for the government, schools, enterprises and other parties to work together to meet the challenges of the new technology, grasp the new opportunities for educational development, and lay the foundation for cultivating talents adapted to future development. UNESCO advocates the construction of a "social contract" to unleash the dividends of technology in education, and the Transforming Education Summit calls for a digital revolution to promote global educational transformation; China proposes to promote the digitization of education to empower a learning society. Under the interaction of science and technology, society and education, the deep integration of intelligent technology and education has formed a new pattern of all fields and elements, presenting multiple features and bringing new challenges and opportunities.

As the annual conference of GSENet, the Global Smart Education Conference 2025 (GSE2025) was held under the theme “Human–AI Collaboration: Reshaping the Educational Ecosystem for the Future.” The conference brought together leading experts and scholars from education, technology, and industry, alongside frontline educators from China and abroad. It featured a rich array of activities—including plenary sessions, panel discussions, high-level dialogues, roundtable meetings, seminars, workshops, and design competitions—examining cutting-edge developments in smart education policy, technology, theory, and practice.

GSE2025 also presented exemplary cases and innovative solutions from across the smart education landscape, further advancing global digital transformation efforts. By illuminating future directions and exploring new pathways for development, the conference contributed to a shared vision for the future of smart education and a collectively imagined blueprint for its long-term evolution.

We were delighted to witness policymakers, technology innovators, and frontline educators come together to explore new models for integrating emerging technologies into education, to share practices in human–AI co-teaching and co-learning, and to reflect on how to build a safe, effective, and sustainable smart education ecosystem for the future.


| **CHEN Xing** | **ZHAN Tao** | **HUANG Ronghuai** |
|---|---|---|
| Vice-president, BNU | Director, UNESCO IITE | Co-Dean, SLIBNU |

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Former Assistant Director-General for Education, UNESCO

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Firstly, we would like to express our sincere gratitude to Mr. CHENG Jianping, Chairman of the University Council of Beijing Normal University, and Mr. TANG Qian, Former Assistant Director-General for Education at UNESCO, who served as Co-Chairs of GSE2025. Their strategic leadership and long-term commitment provided overarching guidance for the success of this year's conference. We also extend our deep appreciation to the Co-Chairs of the GSE2025 Program Committee—Mr. CHEN Xing, Vice President of Beijing Normal University; Mr. ZHAN Tao, Director of UNESCO IITE; and Mr. HUANG Ronghuai, Co-Dean of the Smart Learning Institute of Beijing Normal University. Their academic vision and thoughtful direction ensured the high quality and strong scholarly foundation of the conference program. Special thanks are extended to Ms. Asha S. Kanwar, Chairman of the Advisory Committee of the Global Smart Education Network and Chair Professor at BNU; Mr. CHEN Guangju, Former Vice President, Deputy Director of the Academic Affairs Committee of BNU; and Mr. LIU Dejian, Co-Dean of the Smart Learning Institute, for their valuable guidance and steadfast support.

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We also extend our sincere appreciation to all speakers, moderators, and participants from around the world—including representatives of governments and international organizations, as well as scholars, experts, and industry practitioners in smart education. We are equally grateful to all attendees and student participants for their meaningful contributions. Their engagement and enthusiasm transformed this Conference into a dynamic platform for knowledge sharing, open dialogue, and collective growth.

We have benefited greatly from the invaluable contributions and collaboration of numerous partners, each bringing unique expertise and resources to support our shared mission. We would first like to extend our sincere appreciation to the members of GSENet—including Beijing Normal University (BNU), the UNESCO Institute for Information Technologies in Education (UNESCO IITE), the Commonwealth of Learning (COL), the International Society for Technology in Education (ISTE), the Arab League Educational, Cultural and Scientific Organization (ALECSO), and the Southeast Asian Ministers of Education Organization (SEAMEO)—for jointly initiating the Global Smart Education Network(GSENet).

We are equally grateful for the expanded partnerships fostered through this network, including the UNESCO International Institute for Higher Education in Latin America and the Caribbean (UNESCO IESALC), the UNESCO International Institute for Capacity Building in Africa (UNESCO IICBA), the International Council for Open and Distance Education (ICDE), the Moroccan International Center for Artificial

Intelligence (MICAI), Hamdan Bin Mohammed Smart University (HBMSU), Asia e University (AeU), the Open University of Mauritius (OU), the Open University of Kenya (OUK), Goroka University (UOG), the University of Rwanda, Contact North, Globalethics, and the Institute for Human Development and Technology Interdisciplinary Studies at the State University of Rio de Janeiro (IFHT/UERJ), as well as other distinguished institutions. Their strategic collaboration has provided a strong foundation for deepening global exchange and cooperation in the field of smart education.

Then, we extend our deep appreciation to our host institutions, including the Smart Learning Institute of Beijing Normal University (SLIBNU), the Faculty of Education and the Faculty of Psychology of Beijing Normal University, the China Institute of Education and Social Development (CIESD), and the National Engineering Research Center of Cyberlearning and Intelligent Technology. These institutions have played an essential role in advancing innovative teaching practices and research in the field of smart learning.

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We would also like to extend our heartfelt appreciation to the Co-Chairs of the GSE2025 Organizing Committee—Mr. WU Yujun, Director of the Office of International Exchange and Cooperation of Beijing Normal University; Mr. ZENG Haijun, Vice Dean of the Smart Learning Institute of Beijing Normal University; and Mr. ZHENG Qinhua, Executive Deputy Director of the National Engineering Research Center of Cyberlearning and Intelligent Technology. Their strong coordination and dedicated leadership were pivotal to the smooth and high-quality execution of the Conference.

Finally, we express our sincere gratitude to the secretariat, international affairs, publicity, technical support, and finance teams of the GSE2025 Organizing Committee, as well as every colleague and volunteer involved. Through their collective effort, professionalism, and unwavering dedication, the conference was delivered seamlessly and to an exceptional standard. Each team played a vital role in ensuring the success of GSE2025.

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# Executive Summary

The Global Smart Education Conference 2025 opened in Beijing on August 18 (GMT+8). Held under the theme “Human–AI Collaboration: Reshaping the Educational Ecosystem for the Future,” the conference brought together leading experts and scholars from education, technology, and industry, as well as frontline educators from across China and around the world. Participants gathered to explore innovative pathways for the deep integration of emerging technologies and education, share new practices in human–machine co-teaching and co-learning, and reflect on how to build a safe, efficient, and sustainable ecosystem for smart education. The event welcomed more than 500 distinguished guests globally and over 2,500 on-site participants.

Throughout the conference, leaders from government agencies, international organizations, diplomatic missions, and renowned academic institutions from more than 69 countries and regions convened in Beijing. Anchored in the theme “Human–AI Collaboration: Reshaping the Educational Ecosystem for the Future,” the conference examined the evolution of smart education policies, breakthroughs in cutting-edge technologies, and emerging models of innovative practice. Together, participants worked to chart an ideal blueprint for the future development of smart education.

The conference sought to break down boundaries across disciplines, sectors, and regions. Guided by the core principle of human–AI collaboration, it called upon global stakeholders to join forces, deepen cooperation, and collectively advance smart education as a key pathway to ensuring equitable access to high-quality learning opportunities for all. Through this concerted effort, the conference generated a series of meaningful outcomes, injecting strong momentum into the digital transformation of education worldwide.

## Smart Education is a Shared Strategic Vision for Achieving Sustainable Development Goals in Education

As the core goal of the digital transformation of education, smart education not only highlights the future development direction of reshaping the educational ecosystem with new technologies but is also becoming a common strategic vision for countries around the world to address the major challenges of the digital age and achieve the sustainable development goals in education. In terms of deep-seated changes in educational forms, the "wisdom" in smart education stems from the professional leadership of teachers, while the "capability" of Smart Education relies on the technological support of the environment. The "innovation" in future education focuses on the iterative upgrading of forms. The "Global Digital Compact" adopted at the United Nations Future Summit, embodies the collective will of the international community to unite in seizing digital opportunities and addressing digital challenges, collectively building an inclusive, open, fair, and secure digital future. China regards advancing the digitalization of education as an important strategy for educational modernization, progressing from the "3C" concept of connection first, content-centered, and cooperation essential, to the "3I" actions of integration, intelligence, and internationalization, continuously advancing the national strategy for the digital transformation of education. By creating a national smart education platform and launching an international version, China continually updates educational concepts, reforms educational models, and innovates digital teaching methods, promoting a transformation in learning approaches towards "on-demand provision." This successfully constructs a new form of smart education that balances technological empowerment, green development, and open cooperation, providing a practical model for the global digital transformation of education.

## Smart Education Leads to Profound Changes in Global Education Systems

**Embracing the wave of change, Smart Education is profoundly reshaping the global education ecosystem.**

In the current era of accelerating iterations and continuous breakthroughs in artificial intelligence technology, each technological innovation is fundamentally transforming human production and lifestyle, as well as altering cognitive models and learning paradigms. This disruptive transformation is driving comprehensive upgrades across various fields of human society with unprecedented breadth and depth. **H.E. Mr. WU Yan**, the Deputy Minister of Education of the People's Republic of China, mentioned in his speech at the opening of the conference that artificial intelligence has brought five key changes: the way students learn, the teaching methods of educators, the governance structure of schools, the research paradigms of higher education institutions, and the overall structure of education. He pointed out that these five changes represent the strategic progress achieved over three years in implementing China's digital education strategy. **H.E. Ms. Stefania Giannini**, Assistant Director-General for Education at UNESCO, emphasized that for today's learners—and future generations—to meaningfully participate in designing and shaping their own futures, education systems must prioritize the development of core competencies across the entire continuum from basic to higher education. She underscored the need to adjust educational structures proactively to meet the demands of a rapidly changing world. **H.E. Prof. Mohamed Ould Amar**, Director-General of the Arab League Educational, Cultural and Scientific Organization, noted that the education sector is undergoing a profound transformation—one that marks a new chapter in educational history, as collaboration between human and machine-generated language reaches an unprecedented level. He emphasized that with the support of artificial intelligence, education quality can be greatly improved while expanding equitable learning opportunities for a much wider population.

**Embrace the wave of change and explore new paths for the sustainable development of smart education.**

In the face of the urgent need for the digital transformation of education, the education system needs to establish a dynamic adaptation mechanism, through technological innovation, conceptual innovation and system restructuring, focusing on cultivating innovative talents with future core literacy. This transformation not only requires educators to take the initiative to embrace technological change but also requires all sectors of society to re-examine the nature of education, and jointly build a new ecology of smart education that is open, inclusive, flexible, efficient and sustainable. **Prof. YU Jihong**, President of Beijing Normal University, pointed out in her opening speech that four key directions must be prioritized to advance educational transformation. First, it is essential to take the initiative in leading digital education reform and fully support the deep integration of AI and education. Second, the talent cultivation paradigm must be actively innovated to meet the demands of future societal development. Third, continued exploration of interdisciplinary integration is needed to unleash new momentum for educational innovation. Fourth, digital cooperation in education should be further strengthened to broaden the reach and influence of high-quality educational resources.

**H.E. Ms. Dubravka Bošnjak**, Minister of Civil Affairs of Bosnia and Herzegovina, shared her country's practical experience in addressing the challenges facing its education system. She highlighted three key priorities: first, ensuring equitable access to digital tools and reducing the digital divide; second, strengthening teachers' technological competence and digital leadership to build a solid foundation for transformation; and third, establishing sound ethical and regulatory frameworks to effectively safeguard data privacy and security. **Mr. Liu Yongqiang**, Director of the Curriculum, Teaching Materials, and Laboratories Division, Department of Higher Education, Ministry of Education of China, pointed out that

the construction of a more resilient and sustainable higher education ecology of the future can be centered on three aspects: firstly, based on the new stage of development, reshape the concept of future-oriented talent cultivation; secondly, set up a new standard of quality, create a distinctive Smart Education system; and thirdly, open up a new path of reform, and build a new form of multi-dimensional and synergistic education.

**Leading the wave of change and building a new global synergistic ecosystem for smart education.**

**Prof. HUANG Ronghuai**, Co-Dean of the Smart Learning Institute of Beijing Normal University and Chairholder of the UNESCO Chair on AI in Education, noted that to advance the Sustainable Development Goals in education, UNESCO launched the Futures of Education initiative in 2019. In 2021, the International Commission on the Futures of Education released its landmark report, Reimagining Our Futures Together: A New Social Contract for Education, which systematically articulated the core concerns for the future of education. During the Transforming Education Summit in 2022, global leaders further called for reshaping education systems through long-term vision and bold, forward-looking actions in response to a rapidly changing world. In this context, the Conference marked the official release of the new monograph Smart Education: Pathways Toward Education 2050, which contributes to the global dialogue on the future of education by exploring how to build a more resilient, inclusive, and future-ready education system. **Prof. Asha S. Kanwar** emphasized that smart education is not only a key driver for advancing progress toward SDG 4, but also an essential foundation for building global partnerships in education and cultivating a culture of continuous improvement. She noted that smart education represents both an inspiring vision for the future and a clear, actionable goal for current practice—one that will provide the core impetus needed to shape a truly future-oriented educational ecosystem.

## Digital Transformation has Become an Inevitable Direction for Global Educational Reform

**The global digital transformation of education has become an international consensus, as many countries share insights on reform practices and value concepts.**

Digital transformation in education has gained widespread agreement worldwide, with countries and international organizations actively working to promote deep transformation and innovative practices in educational models. **H.E. Prof. Ali Haidar Ahmed**, the Minister of Higher Education, Labour and Skills Development, Maldives, emphasized that digital education is a disruptive force that empowers future development. It not only drives systemic transformation in educational systems but also serves as a driving force for educational innovation. **H.E. Mr. Moustapha Mamba Guirassy**, the Minister of National Education of Senegal, emphasized that the digital transformation of education is not merely about deploying machines or software, but about upholding the deeper values of cultural heritage and social inclusion. He noted that the true significance of digital technology lies in its ability to create emotional connections among people and build meaningful links between individuals and broader developmental progress, ensuring that technology genuinely serves human growth and social advancement. He also expressed strong agreement with the “3C” framework proposed by China’s Ministry of Education—Connection, Content, and Cooperation—recognizing it as an accurate reflection of the essence of digital education. **H.E. Mr. Douglas Munsaka Syakalima**, the Minister of Education, Zambia, stated that digital education is no longer a luxury but a fundamental right. He emphasized that digital education should focus on four main directions: providing learners with lifelong learning skills and platforms, offering personalized training for teachers based on individual needs, promoting educational equity, and fostering inclusive development.

**The ”Intelligent Gap" has become a key challenge in the digital transformation of education, prompting calls from multiple parties to establish a solid foundation for equity.**

In the process of educational digital transformation, learner-centered teaching models and data-driven

educational governance optimization have become global trends. However, issues such as uneven technological infrastructure and the digital divide still need urgent solutions, among which the intelligent gap is increasingly becoming a new variable that affects the quality of transformation. **H.E. Prof. Sherif Kishk**, Assistant to the Minister for Smart Governance, Higher Education and Scientific Research of Egypt, emphasized that the central issue facing the education sector today is not whether to use artificial intelligence, but how to apply it scientifically and govern it wisely. He stressed the importance of ensuring that AI does not exacerbate existing inequalities or widen the digital divide. **Mr. Li Yongzhi**, President, China National Academy of Educational Sciences (CNAES), pointed out that paying attention to and bridging the intelligent divide has become a key factor in reshaping educational equity. He stated that human civilization has always been an integrated whole, and within this holistic framework, any form of class stratification or the emergence of a new intelligent divide will directly affect everyone's pursuit of a better life in the future. Therefore, as a critical variable in reshaping educational equity, the development trend of the new intelligent divide deserves the close attention and vigilance of the entire society. **Dr. Francesc Pedró**, Director, UNESCO International Institute for Higher Education (UNESCO IESALC), noted that artificial intelligence offers new possibilities and responsibilities for advancing the democratization of knowledge, but it is not a resource that can be accessed equally by all. He emphasized that sustained efforts to narrow the digital divide remain essential for safeguarding educational equity.

**The digital transformation of education is empowering the modernization of education, with multiple countries and schools sharing practical pathways and key issues.**

As the core driving force behind educational modernization, the digital transformation of education is reshaping the global education development landscape with its unique value and far-reaching significance. **Prof. Palidan Tuerxun**, President of Kashi University, introduced that the university advances educational digital reform through a three-pronged driving model of "institutional leadership, resource integration, and innovative models." They seize the strategic opportunities of digitalization in education and teaching, using the "Smart Education Cloud Kashgar" platform as a technological foundation to deeply explore the innovative integration of artificial intelligence and higher education, continuously building a digital transformation plan with school-specific characteristics. He emphasized that how to fully leverage the empowering role of digital technology in key areas such as educational policy-making and responding to learner needs is an important issue for accelerating the transformation process and promoting the in-depth development of educational digitalization. **Prof. Mohamed Ould Amar**, Director-General, the Arab League Educational, Cultural and Scientific Organization (ALECSO), stressed that in core areas like educational policy-making and responding to learner needs, the question of how to fully utilize the empowering value of digital technology to accelerate the transformation process is crucial for advancing global educational digitalization. **Mr. Thierry Verdel**, Rector, Universite Senghor in Egypt, shared that their university has significantly improved the implementation efficiency of collaborative projects through educational digital transformation, leading to more transparent and standardized management processes and substantial improvements in employee satisfaction. **Prof. WU Di**, Central China Normal University, focused on key issues in the development of smart education and proposed that five key problems need to be addressed: first, leveraging intelligent technology to promote educational equity; second, optimizing educational governance effectiveness through digital means; third, relying on technological innovation to expand lifelong learning scenarios; fourth, utilizing digitalization and artificial intelligence to empower teachers' professional development; and fifth, achieving precise empowerment of the teaching and learning process by artificial intelligence while strictly adhering to data security principles.

## Integration of Emerging Technologies into Education as a Global Agenda for Deepening Digital Transformation

The accelerated evolution of new technology clusters such as the Internet, big data and artificial intelligence is promoting the structural reorganization and process re-engineering in all areas of human

production and life, and at the same time profoundly changing the organizational form and service mode of education. Intelligent technology has become the core force leading educational change, injecting new hope for accelerating the realization of the goal of sustainable development of education. UNESCO is actively advocating the construction of a "social contract" for future education, giving full play to the education dividend brought by smart technologies, and further highlighting the nature of education as a global public good. At present, how to correctly understand and grasp the conceptual change and form reshaping triggered by the application of new technologies in education, promote the reasonable, orderly and safe integration of AI and other technologies into the global smart education ecosystem, so that science and technology can always uphold the goodness of the original heart, and let the light of wisdom continue to light up the future of education has become a key issue that must be faced by the development of global education in the new era.

## Comprehensive Coverage Drives the Coexistence of Virtual and Real in Educational Scenarios

**Integrating all domains to create a seamless connection between the virtual and physical worlds in a new ecosystem of smart education.**

This ecosystem breaks the boundaries between physical space and virtual scenarios, allowing high-quality educational resources to flow efficiently in a blended environment, which enhances the effectiveness of teaching. **Prof. LIU Dejian**, Founder & Chairman, NetDragon Websoft Inc. stated that the ideal form of education can be characterized by the “3E” model: effectiveness, efficiency, and experience. He noted that creating educational products with high-quality learner experiences requires attention to four core dimensions: first, personalized experiences that place learners at the center; second, aesthetic design that offers an enjoyable visual and sensory experience—what he described as “like tasting candy”; third, immersive learning modules incorporating gamified activities that spark curiosity and encourage active exploration through engaging interactions; and finally, a needs-driven learning approach that enables collaboration between learners and intelligent tools, making knowledge acquisition more flexible and efficient. **Dr. Andreas Schleicher**, Director for Education and Skills, Organization for Economic Co-operation and Development (OECD) , points out that the unique advantage of digital tools lies in their extraordinary reach, enabling cutting-edge technologies to extend even to the most remote regions of the world. This allows young people to broaden their cognitive horizons, encounter diverse perspectives, and access abundant digital resources—ensuring they can genuinely benefit from the unprecedented opportunities that digital transformation brings to education.

**Take immersive technology as the fulcrum to reshape the new form of personalized learning experience.**

Immersive technology is breaking through the time and space shackles of traditional teaching in an innovative mode, transforming abstract knowledge into visual content and complex skills into operable scenarios, which truly promotes the educational ideal of teaching according to the student's ability to take root. **Mr. NIE Xiaolin**, Co-founder, Board Member and Senior VP, iFLYTEK Co., Ltd., introduced that the situational interactive intelligences created through the combination of large models and virtual human technology are becoming the "third subject" in the teaching scene, and that in the teaching materials of the whole discipline, the native virtual human can upgrade the textbook characters from the silhouette of the text to an intelligent partner that can be used for dialogues, answering questions and guiding discernment. In the textbooks of all disciplines, native avatars can upgrade textbook characters from textual silhouettes to intelligent partners that can talk, answer questions, and guide thinking and discernment, restore knowledge application scenes in specific scenarios, connect interdisciplinary content, and effectively stimulate students' internal drive to learn**. H.E. Dr. Ali Haidar Ahmed**, Minister of Higher Education, Labour and Skills Development, Maldives, emphasized that digital transformation is redefining the model of school–industry collaboration. Through shared digital platforms, industry partners can now

participate deeply in curriculum design, provide virtual internships, and co-develop training modules. This enables students to acquire the core skills required by industry while still in school, ensuring a seamless alignment between educational provision and labor market needs. **Prof. HAN Xibin**, Tenured Professor, School of Education, Tsinghua University noted in his presentation on the digitalization of vocational education that technologies such as virtual reality and digital twins have enabled the creation of immersive training environments, markedly enhancing the effectiveness of skills development.

**The digital foundation empowers teachers and students to grow in a symbiotic manner, both virtually and in reality.**

As a core digital infrastructure, the digital foundation not only provides solid support for personalized teaching implementation and precise learning analysis but also promotes collaborative innovation and mutual growth between teachers and students in both virtual and real spaces, assisting in a qualitative leap in educational quality. **Prof. Curtis J. Bonk,** Indiana University, USA, pointed out that digital platforms can break down the scale barriers to educational participation, allowing more people to share high-quality learning resources. He cited Stanford University as an example, where over 30,000 students can share learning spaces, with 3,000 volunteer teachers participating in instruction. This is based on a self-directed and self-guided learning model that allows for the collective completion of course studies. **Prof. Ayham Boucher**, Director of AI Innovation Lab, Cornell University, mentioned that in large classrooms with numerous students, artificial intelligence can assist teachers in accurately identifying each student's learning difficulties, thereby allowing for flexible adjustments to the teaching content and improving instructional effectiveness. **Mr. JIN Shanguo**, Chairman & CEO, Beijing WenHua Online Education Technology Co., Ltd., stated that the company has always been committed to deeply integrating new technologies into education, building a collaborative educational system of "cloud-edge-end" that encompasses infrastructure, smart teaching physical spaces, and digital teaching environments. Within this system, a classroom-centered approach achieves comprehensive technological empowerment before, during, and after class, enhancing the intelligence and efficiency of education and teaching.

## A Whole-Element Reconstruction to Enable an Intelligent Educational Data Ecosystem

**The reconstruction of data value is driving the intelligent transformation of educational elements.**

Relying on artificial intelligence and big data technology, discrete education data is transformed into quantifiable and traceable intelligent assets, promoting the transformation of teaching mode from experience-driven to data-driven, thus realizing the reconstruction of value and enhancement of effectiveness of education elements. **Mr. REN Changshan**, Director of the Education Informatization and Cybersecurity Division, Department of Science, Technology, and Informatization, Ministry of Education, noted that the Ministry has undertaken extensive efforts to reform “how students learn, how teachers teach, how schools are managed, and how the overall educational ecosystem operates.” He highlighted that China has successfully hosted five editions of the Global MOOC and Online Education Conference, as well as three consecutive World Digital Education Conferences, sharing with countries around the world the achievements of China’s educational digitalization and the broader dividends of digital civilization. **Mr. Omar Baig**, Chief Information and Technology Officer (CITO) of UNESCO, pointed out that the value of AI relies on quality data, without which there is no real value of AI. He compared it to an airport transportation hub, where the real value of data can only be realized by connecting different sources of data through a data center**. Mr. Gwang Chol Chang**, Chief of Section of Education Policy, Division for Policies and Lifelong Learning Systems, UNESCO, emphasized emphasized the importance of promoting research outcomes grounded in reliable data and real-world contexts. He stressed that the relevance, scientific rigor, and timeliness of data are essential—not only for frontline practitioners, but also for policymakers who must rely on empirical evidence to ensure that the policies they formulate genuinely reflect educational practices and realities.

**Data-driven construction of a real-time diagnosis and feedback mechanism for comprehensive quality assessment.**

Through intelligent technology, it automatically captures learners‘ knowledge blind spots and shortcomings, and relies on precise algorithmic models to predict learning development trends, providing scientific data support for personalized teaching interventions, and promoting the deep transformation of education assessment from traditional “result evaluation” to dynamic “process optimization”. It promotes the deep transformation of educational assessment from traditional “result evaluation” to dynamic “process optimization”, so that assessment can truly serve the quality and efficiency of the whole learning process. **Mr. SHU Hua**, Deputy Director of the Department of Science, Technology, and Informatization, Ministry of Education, pointed out that it is necessary to actively expand the new channels of AI-enabled education evaluation reform, and made clear the four core principles: one is to adhere to the value leadership, to ensure that the direction of the evaluation reform will not be biased; the second is to adhere to the way of innovation, and to enhance the evaluation of the scientific level of competence; the third is to adhere to the application of the results, and to magnify the multiplying effect of the reform; and the fourth is to adhere to the ethical escort, and to strictly abide by the data safety and Fourth, adhere to ethical escort, strictly abide by the data security and education fairness bottom line. **Prof. CHEN Li**, Chair of the Ministry of Education’s Information Technology-Supported Comprehensive Student Assessment Pilot Program and Professor at the Faculty of Education, Beijing Normal University, announced a major outcome at the conference opening ceremony—the “AI-Based Innovative Solution for Comprehensive Quality Assessment of Chinese Students.” She explained that this system integrates core technologies such as expressive assessment, intelligent data collection, and automated analysis and visualization. It is designed to address three long-standing challenges in China’s comprehensive student assessment: inconsistent evaluation frameworks, limited objectivity in assessment results, and insufficiently actionable feedback. By leveraging artificial intelligence, the solution aims to provide strong technological support for making comprehensive quality assessment more scientific and evidence-based. **Prof. CHEN Jiangfeng**, Vice President of Beijing University of Science and Technology, shared that the university empowers AI to carry out the teaching evaluation process. Through AI technology, it continuously collects, analyzes and processes the whole process data of the online teaching process, teachers' teaching behaviors and students' learning behaviors, and provides teachers with quality reports, which can practically serve the enhancement of the quality of classroom teaching.

**Driven by data, we are reshaping a new paradigm for intelligent educational decision-making.**

By leveraging in-depth exploration of educational big data and machine learning analysis, we are gradually constructing intelligent decision-making models that cover teaching management, resource allocation, and quality assessment, promoting a fundamental shift in educational decision-making from experience-based judgments to data-driven processes. **Mr. YUAN Jun**, Vice President of the National Data Development Research Institute, pointed out that building a high-quality data set management service platform requires focusing on three core tasks: first, drawing up a construction roadmap to let demand drive the development of high-quality data sets. Second, identify the main bodies involved in the construction of high-quality data sets and clarify their respective roles. Third, we need to clarify the sources of data, systematically organize relevant data according to scientific standards, and lay a solid foundation for the construction of high-quality data sets. **Mr. XU Yunguo**, President of Laiwu Vocational and Technical College, shared the school's practical experience. In the full process of professional development, they established a "four-step cycle" mechanism of "professional planning, goal management, project management, and achievement management." By relying on intelligent profiling analysis and improving data and management, they are aiding in the optimization and adjustment of professional structures, thereby constructing an integrated professional competitiveness model**. Mr. HE Zhanping**, Deputy Director of the Education and Sports Bureau of Ordos City in Inner Mongolia, introduced how local schools have incorporated artificial intelligence into the evaluation index system for smart campus construction in primary and secondary schools. They are leading with demonstration schools and focusing on application scenarios to comprehensively carry out pilot projects for artificial intelligence applications, continuously empowering deep transformations in educational teaching forms

from technological implementation to paradigm reconstruction. **Dr. Muriel Poisson**, Knowledge Management and Mobilization Lead, UNESCO-IIEP, noted that artificial intelligence can serve as an important tool for educational decision-making. By analyzing data, AI can help identify gaps in education systems, monitor implementation processes, and forecast future development trends. She emphasized that by structuring education data and supporting resource allocation across different regions, AI-driven algorithms can further optimize budget distribution, reduce administrative burdens, and enhance the continuity and stability of education systems.

## Re-engineering the Whole Process to Realize the Intelligent Linkage of Educational Links

**The deconstruction of processes breaks the temporal and spatial barriers in education.**

Relying on technologies such as artificial intelligence and cloud computing, teaching elements are reorganized across time and space, enabling core activities like lesson preparation, teaching, and practical work to transcend physical limitations and flow freely between virtual and real scenarios, thus constructing a new form of education where “learning can happen anywhere, and teaching can occur at any time.” **Prof. WU Fati** from the School of Educational Technology, Faculty of Education at Beijing Normal University pointed out that education intelligent agents empowered by generative artificial intelligence are deeply integrated into the teaching system, participating in the entire process of teaching and learning. He highlighted four characteristics of this teaching structure: first, the learning environment is created around the generation of individual learners’ learning experiences; second, education intelligent agents have flexible roles in the teaching process; third, there are multidirectional interactions among the three entities of “teacher-machine-student” during the teaching process; and fourth, there is a shift from teacher-led instruction to human-machine collaborative guidance. **Mr. LI Xiaohai**, Director of the Education Commission of Kaizhou District, Chongqing , shared the district's practices in restructuring school management approaches and process reengineering. Through a digital platform, multiple business functions such as registration, intelligent class division, academic management, examination management, and logistics management have been moved online, effectively reducing processing time by 70%.

**Intelligent platform builds the nerve center of education elements.**

Through real-time data perception and dynamic regulation, the intelligent platform can precisely optimize the operation of the whole process of the education supply chain, and coordinate the efficient linkage of core elements such as teaching resources, tools and scenarios like a "nerve center", thus significantly improving the response speed and overall operational efficiency of the education system. **Mr. Tigran Yepoyan**, Chief of the ICT in Health Education Unit at UNESCO IITE, noted that digital platforms can enhance online teaching in multiple ways: they strengthen teachers’ capacities, improve students’ emotional intelligence, create an open environment for dialogue, and increase classroom interactivity. Just as importantly, they return agency to learners, encouraging them to express their ideas confidently and participate in decision-making. **Ms. PENG Xuezhuang**, Deputy Director of the Digital Education Department of the Affairs Center of Guangdong Provincial Department of Education (Guangdong Provincial Center for Educational Technology) , shared the results of the construction of the "Guangdong Teaching Xiangyun" digital teaching materials learning space. The platform not only integrates teaching material resources intensively, but also provides diversified learning tools, including subject tools, discussion and inquiry tools, online assessment tools, etc., to provide students with a richer learning experience. **Prof. HE Zhen**, Director, Institute for Vocational and Adult Education, Beijing Normal University, suggests that the development of intelligent digital education needs to focus on six areas: first, the design and development of intelligent digital curricula; second, the construction of intelligent digital learning platforms; third, virtual internships and remote training; fourth, the cultivation of teachers' digital literacy; fifth, intelligent digital assessment and skills certification; and sixth, lifelong learning and skills iteration. **Mr. TANG Xibo**, the Party Secretary, Chengdu Arts and Physical Education High School,

Sichuan Province, Senior Secondary School Teacher, shared a vivid case study from his school. He introduced that, with the interdisciplinary collaboration between biology, geography, and art, teachers and students jointly designed the "Urban Green Lung: Life Network" project. This project relies on a simulated ecological experimental platform and continuously integrates AI for collaborative iteration. It proposes and optimizes urban green island construction plans, achieving the transformation from knowledge acquisition to value creation.

**Dynamic closed-loop activation injects new momentum into the educational ecosystem.**

By leveraging real-time data monitoring and intelligent analysis technologies, an automated adjustment mechanism of “Assessment - Feedback - Optimization” is gradually being established, promoting the upgrade of the education system from traditional static management to a dynamic equilibrium model and continuously injecting new momentum for sustainable development into the educational ecosystem. **H.E. Ms. Aminath Nada Mohamed**, Deputy Minister of Higher Education, Labour and Skills Development of the Maldives, emphasized that as global education undergoes rapid transformation, digital tools are no longer optional—they have become an essential driver of educational development. **Mr. ZHANG Tun**, Director of the Digital Learning Resource Center at the National Open University of China, shared experiences related to the construction of intelligent learning resources. He introduced that, first, at the digital platform level, they are coordinating the construction of resource foundations, security foundations, intelligent foundations, and data foundations to strengthen the supporting system for intelligent digitalization. Second, they are creating an intelligent review platform that innovatively employs the "1+N" review model based on the National Open University's resource pool—“1” refers to a self-developed review and data management system, while “N” integrates top-tier corpora from Xinhua News Agency, Learning Power, People's Daily Online, etc., to achieve complementary advantages between technical capabilities and quality content. Third, they are building a vocational teaching resource database, which provided robust support for teachers' personal growth and professional development. **Mr. FENG Yu**, General Manager of Sports Entertainment and Education Business Group of CCTV.com, introduced the AI Campus Toolkit launched by CCTV.com. This toolkit includes intelligent service platforms for various scenarios like teaching, research, and management, such as an intelligent lesson preparation platform, a practical training platform, and an online classroom management platform. Additionally, they are creating a "Digital Factory," centered around digital human and large model technologies, to provide comprehensive solutions for the education and training sector, making learning simpler, teaching more efficient, and education fairer.

## Deep Application of Large AI Models Fosters a New Form of Human–Machine Collaborative Education

The rapid development of generative artificial intelligence technology, particularly with the emergence of large-scale pre-trained language models such as ChatGPT, ChatGLM, and DeepSeek, is initiating a new wave of technological revolution. Breakthroughs in large AI models have ushered in a historic turning point for machine intelligence, accelerating systemic changes in educational concepts related to knowledge, learning, curricula, and teaching. Furthermore, these advancements inject strong momentum into the reshaping of new educational forms for human-machine collaboration. Supported by a "cloud-edge-end" collaborative architecture and the general capabilities of large models, educational intelligent agents will promote the development of interdisciplinary, multi-scenario human-machine "collaborative teaching," achieve bidirectional empowering human-machine "collaborative learning," and establish secure and trustworthy human-machine "collaborative decision-making," jointly constructing a new ecosystem for smart education.

## Transformation of the Teacher's Role: From Knowledge Conveyors to Designers of Human-Machine Collaboration

**Intelligent empowerment and humanistic values should be adhered to in order to build a new ecology of human-machine cooperative education.**

In the context of the deep integration of intelligent technology into education, the construction of a new ecology of human-computer cooperative education needs to take into account both technological empowerment and upholding humanistic values. This transformation requires teachers to break through the traditional position of “knowledge transmitter” and evolve into “learning ecology architects”, not only to flexibly use artificial intelligence technology to carry out accurate diagnosis of learning conditions, generate adaptive teaching resources, and plan personalized learning paths, but also to achieve a new ecology of human-machine collaboration in large-scale education scenarios, which can be achieved through the use of human-machine technology. In large-scale education scenarios, it is necessary to realize the implementation of tailor-made teaching, so that technology can serve the needs of human growth and education can be revitalized in the balance between science and technology and humanities. **Prof. MA Ning**, Dean of the School of Educational Technology, Faculty of Education, Beijing Normal University, puts forward that the new paradigm of human-machine collaborative teaching is a forward-looking exploration of the future shape of education under the guidance of learning science. Its core goal is to make intelligent machines become teachers‘ “super assistants”, so that teachers can focus more on irreplaceable core values (such as emotional care and value leadership), and build a “teacher-machine-student” triad. --Students“ ternary teaching structure, and ultimately form a new classroom ecology with complementary advantages and harmonious coexistence between humans and machines. **Dr. YANG Yinfu**, Secretary-General of the Secretariat, the Chinese Society of Education, emphasized that in the integration of AI and preschool education, teachers are still the ”lamplighters“ on the road of children’s growth. Efforts should be made to improve the quality and ethical awareness of teachers, so that technology can become a ”warm assistant who understands and loves children“ in the hands of teachers, rather than a cold tool. **Prof. LI Guang**, director of the Training Center for Kindergarten Directors of the Ministry of Education, said that in the era of artificial intelligence, what has changed is the form, means and tools of education, but what remains unchanged is the mission and direction of education. Digital intelligence is not a simple superimposition of tools, but to adhere to the fundamental task of moral education. According to **Dr. Vuk Vujovic**, Assistant Professor, MB University; Technical Mentor of Kreativno Pero in Belgrade, the teacher is the architect, and AI is the assistant, who can do the basic work of drafting, organizing, and revising, but the teacher is always at the heart of the design. But the teacher is always at the center of the design, and the final decision always belongs to the human teacher.

**Human-machine collaboration achieves a dynamic balance from substitution to enhancement.**

By relying on real-time performance evaluation and feedback mechanisms, the ratio of human-machine collaboration can be dynamically adjusted, allowing technology to truly become an “augmented intelligence” that extends teachers‘ capabilities and empowers personalized education, thus realizing a dynamic balance in the division of labor between humans and machines from substitution to collaborative enhancement. **Prof. YU Qingchen**, Vice Dean of the Faculty of Education, Beijing Normal University, emphasized that the core of human-machine collaboration in the education sector lies in the deep interaction and integration between teachers and new technologies and facilities. Since teachers and new technologies cannot completely replace each other, educators will long adopt an exploratory and interactive approach towards new technologies and facilities, thus continuously participating in and promoting the transformation and development of education in this new era. **Mr. MAO Daosheng**, Vice President, Chengdu Institute of Educational Sciences shared his “dual teacher” experience. He pointed out that the “dual teacher” model in basic education differs from that in vocational education and has specific connotations: its core has shifted from the collaboration of online and offline teachers to deep cooperation among various types of teachers achieved through the internet across multiple teaching scenarios. These teachers include not only traditional human teachers but also virtual teachers within platform teaching resources and AI teachers in the era of artificial intelligence. At the same time, dual-teacher education is expanding from a single educational space to multiple spaces and cross-regional

collaboration, thereby broadening the boundaries of educational collaboration. **Prof. CAO Peijie**, Director, Institute of Digital Education, China National Academy of Educational Sciences, proposed the concept of the "teaching thinking chain," which aims to empower the best teachers through large models and provide support for high-quality science education via well-trained large models. He believes that the interactive mode in science education will gradually shift from traditional teacher-student dialogue to human-machine collaboration and interaction, thus opening up new pathways for science education. **Mr. Ahmed Ansary**, Founder President and Group Managing Director of Asia e University, emphasized that artificial intelligence in education must be designed with a human-centered and human-guided approach. AI should function as a collaborative tool, he noted, while the ultimate leadership and decision-making authority must remain firmly in the hands of teachers.

**Synergistic evolution from "school walls" to "open systems".**

Education is undergoing a collaborative evolution from a closed campus to an open system. This change promotes the deep integration of school education and social education, forming a new pattern of resource flow, data sharing and multi-party collaboration in educating people, and reshaping the structure and function of the education ecosystem. **Prof. ZHAN Tao**, Director of UNESCO IITE, called on the global education community to strengthen collaboration, share knowledge, and advance human–AI symbiosis in order to support the sustainable development of education and society. **Mr. Shanks YANG**, Vice President of Tencent Cloud, Head of Tencent Education Industry Solutions, emphasized the concept of “human-machine co-rule”. He pointed out that in the context of the deep integration of physical space and digital space, AI and human beings can achieve efficient synergy, so that the popularity of general education and the precision of personalized growth can promote each other, and broaden the coverage and depth of service of education. **Mr. CHEN Chang-Chieh**, Vice President, NetDragon Websoft Inc.; Vice Dean, Smart Learning Institute of Beijing Normal University, put forward the concept of gamified learning. He believes that in the smart era, teaching can‘t just be a one-man show for teachers, and that learning can be as addictive to learners as playing games. This requires the integration of task systems, such as challenge mechanisms and AI guidance, to encourage learners to master new knowledge through exploration, trial and error, and collaboration. **Mr. ZHANG Shaogang**, Supervisory Board Chair, China Association For Educational Technology (CAET); Former Chair, The Academic Committee and Research Fellow at the Open University of China, pointed out that learning is no longer confined to the campus walls, but is integrated into virtual reality, augmented reality, and mixed reality, penetrating more deeply into every moment of daily work and life. The human-computer collaboration of the trinity of teachers, students and digital people synchronizes the efficiency and temperature of education, and injects continuous momentum into the lifelong learning ecology.

## Innovation in Teaching Models: Building a New Paradigm of Integrated, Interactive, and Personalized Learning

**Breaking down the barriers between industry and education and promoting the deep integration of industry-education and science-education collaboration.**

Taking the breakthrough of breaking the barriers between industry and education as an entry point, we will deepen the integration of industry and education and the convergence of science and education, effectively feeding back cutting-edge scientific research results into teaching practice. This will lead to the construction of a collaborative and interactive community for nurturing talent, injecting industrial momentum and research vitality into the high-quality development of education. **Mr. WANG Jianhua**, President, China Industry-University-Research Institute Collaboration Association, has proposed new practical explorations, such as establishing joint laboratories for industry, academia, and research. Through technological innovation, deep integration of industrial innovation will be achieved, promoting systemic and institutional reforms relying on platform carriers, and effectively addressing key bottlenecks in the innovation and industrial chains to realize seamless connectivity between scientific research and

industry. Significant achievements have been made in this regard. **Prof. Said Benamar**, Director of Executive Education, International University of Casablanca, Morocco, pointed out that artificial intelligence can help design more precise teaching methods and course content while optimizing classroom teaching and learning experiences from perspectives such as neuroscience, educational psychology, and curriculum design. **Mr. LEI Chaozi**, Executive Vice President, China Industry-University-Research Institute Collaboration Association (CIUR), emphasized that achieving high-quality development through the convergence of science and education requires focusing on three directions: first, insisting that talent cultivation is the core, integrating scientific research thinking and innovative development into the entire teaching process; second, aiming at the forefront of global disciplines and major national needs, striving for significant original breakthroughs; and third, strengthening the deep integration of industry and academia led by enterprises, serving the overall battlefield of national economic construction and the health of the people.

**Interactive dialogue is creating a new realm for immersive exploratory learning.**

Traditional classrooms are being upgraded into intelligent dialogue spaces that support continuous deep reflection. Through highly realistic interactive dialogues, students‘ critical thinking and knowledge transfer abilities are stimulated, thereby reshaping the experience of knowledge construction. **Prof. GUO Shaoqing**, director of Strategic Research Base of Education Informatization (Northwest) and dean of the College of Education Technology, Northwest Normal University, pointed out that artificial intelligence will fundamentally change the way we learn. He mentioned that educational agents are a multidimensional cluster that includes teaching agents, assessment agents, and question-answering agents, which can be embedded in different teaching environments to support diverse and personalized learning experiences. **Prof. LIU Sanya**, Vice President, Central China Normal University, emphasized the importance of building agents based on large language models, allowing them to simulate learners with different styles and in various learning scenarios, as well as the interactions between learners. By deeply mining these interaction data, one can analyze and extract learning patterns and cognitive models, which reflects the core connotation of the “social research paradigm” in educational research. **Prof. Diana Laurillard**, Emeritus Professor, University College London, proposed the concept of an intelligent dialogue framework. She believes that integrating artificial intelligence capabilities into a dialogue framework can foster collaboration between teachers and learners, support active learning, and inspire more creativity and innovation.

**Personalized learning paths achieve large-scale accurate supply of teaching according to the students' aptitude.**

Through the algorithmic model to continuously assess the learning effect and automatically adjust the pace of teaching, personalized learning paths achieve large-scale accurate supply, so that the traditional class lecture system of "thousands of people, thousands of faces" education becomes possible, and truly realize the accurate education of people. **Ms. LI Youyi**, Member of the 13th CPPCC; Former Principal of Beijing No.12 Middle School Education Group; Chairman of the School Alliance of Educational Digitalization, pointed out that AI big-model technology and its applications are developing rapidly, profoundly affecting the setting of talent cultivation goals, reshaping education content, and promoting the change of learning styles and teaching paradigms, and even transforming the education process in an all-around way. **Ms. Sanura Jaya**, Technology Education Specialist, SEAMEO Regional Centre for Education in Science and Mathematics (RECSAM), emphasized that the integration of AI and computer thinking into curriculum design can allow students to experience more fun in learning, and at the same time allow AI-assisted STEM education to reach students in remote and impoverished areas through distance education. **Prof. Fan Xianrui**, vice president of the National Open University, said that the construction of a new form of digital university will be supported by educational intelligences and virtual campuses to create an immersive and intelligent teaching and management platform, in which every person eager to learn can find his or her own development.

## Educational Ethics Governance: Rational Application of Large Models and Ethical Boundaries

**Strengthening the safety defense line for educational large models: a multi-level control system for hallucinated content.**

By establishing a dynamically updated knowledge base of factual information in the education field as a benchmark reference, we can ensure the scientific validity and accuracy of the output content from large models, providing reliable support for educational applications. **Prof. Wayne Holmes**, UNESCO Chair in AI Ethics & Governance; University College London, points out that although artificial intelligence is powerful and can accomplish many tasks, we must approach its application with caution. He emphasizes the need for top-level design to regulate the use of AI in education, while also enhancing the accessibility of AI and strengthening the research on its social impact, in order to gain a more comprehensive understanding of the characteristics and limitations of AI. **Mr. YU Tianshui**, CTO of China Unicom's Smart Education Division, mentioned that general large models have a certain cognitive ability in the education sector, but there are still gaps in specific subject areas. Therefore, there is a need to continuously strengthen the professional capabilities of models for vertical subjects. **Prof. YANG Junfeng** from Hangzhou Normal University pointed out that there are two types of ethical risks associated with large educational models: one type arises from the technology itself, such as issues caused by data and algorithms; the other type stems from educational practices, such as the potential decline in students' abilities resulting from long-term reliance on large models.

**Advancing the Deep Alignment of Educational Foundation Models with Core Values.**

To promote the deep alignment of education grand models with core values, it is necessary to establish a multi-dimensional values assessment index system, test the ideological conformity and cultural appropriateness of model-generated content, and ensure that it disseminates positive energy, carries forward the main theme, and becomes an effective booster for establishing morality and educating people. **Ms. Shafika Isaacs**, Chief of the Section for Technology and AI in Education within UNESCO's Future of Learning and Innovation Team, emphasized the importance of ensuring that teachers and students genuinely acquire the capacity to use AI effectively while fostering meaningful interaction among teachers, learners, and AI tools. She highlighted the need to preserve human agency and nurture learners' curiosity, noting that every teacher and learner must be equipped with strong ethical and moral awareness when engaging with AI. **Prof. Carlos Alberto Pereira de Oliveira**, Director, the Multidisciplinary Institute of Human Development with Technologies, Rio de Janeiro State University, Brazil, emphasized the importance of ethical collaboration and inclusion in the age of Artificial Intelligence, the concern for data privacy and security, and the use of data and AI to safeguard human dignity--Artificial Intelligence is not a marketable product, but a basic human right. The Director of the Hong Kong Polytechnic University's Graduate School of Higher Education, **Prof. HU Xiang'en** from Hong Kong Polytechnic University, emphasized that teaching cannot be entirely outsourced to AI. Students do not remember algorithms—they remember the knowledge conveyed by teachers and the trust they place in them. Therefore, only through the integration of human wisdom and artificial intelligence can "smart education" be truly realized—an approach that values not only intelligence, but also emotion, teacher–student relationships, motivation, and the overall learning experience.

**Improving Ethical Guidelines and Accountability Frameworks for Educational AI Models.**

Enhancing the ethical norms and accountability mechanisms for the application of large educational models can ensure that when ethical transgressions occur, responsibility can be quickly identified and corrective procedures initiated, thereby creating a trustworthy and controllable environment for educational artificial intelligence applications. **Mr. CHEN Dongsheng**, Deputy Director, Department for Supervision of After-School Tutoring Institutions, Ministry of Education, P.R. China, proposed to guide the implementation of the "Guidelines for the Use of Generative Artificial Intelligence by Primary and Secondary School Students (2025 edition)," which aims to assist teaching in a reasonable and effective

manner, cultivate a culture of “technology for good,” and enforce technology ethics to help students learn to use artificial intelligence correctly and avoid misuse of tools. He also emphasized advocating for industry organizations and leading companies in the artificial intelligence field to sign and adhere to the “Convention on Empowering Students for Comprehensive Growth by Intelligent Agents.” **Ms. LIN Junfen**, Director of the Education and Science Institute of Futian District, Shenzhen, shared that the district was one of the first to establish regional ethical norms, creating standards for the entry of intelligent tools, educational application scenarios, ethics and safety norms, as well as dynamic supervision norms, aiming to guide schools in implementing the concept of “intelligence for good. **Dr. Ton Quang Cuong**, Dean, Faculty of Educational Technology, University of Education, VNU Hanoi, Vietnam, pointed out that as artificial intelligence becomes increasingly sophisticated, ethical issues have become more pressing. Education policies must be more flexible than technological developments, encouraging the exploration of new models, establishing ecological sandboxes, and adjusting curriculum assessment and design methods to meet future educational demands.

## Modernization of Educational Governance is a Core Guarantee for the Deepening and Sustainability of the Digitalization of Education

The modernization of education governance is the core cornerstone and important guarantee for promoting the in-depth development of education digitization and achieving sustainable development. By establishing a scientific decision-making mechanism characterized by data-driven approaches, a collaborative governance framework centered around multi-party cooperation, and an institutional environment aimed at flexibility and efficiency, we can provide clear strategic planning, unified standards and norms, reliable security protections, and effective regulatory assessments for the digitalization process. This system ensures that the application of technology always serves the essence of education, facilitates the orderly flow and value release of data elements, and coordinates the efforts of all parties to effectively resolve potential contradictions and risks that may arise during the transformation process.

### Establish a Digital Education Governance System that is ”Standardized, Unified, Safe and Controllable.”

**Consolidate the digital foundation of smart campuses to create a standardized, secure, and controllable new environment for education.**

With the smart campus digital foundation as support, we aim to develop a new educational environment that is standardized and secure. By promoting the deep integration of information technology with education and teaching, we empower innovations in teaching models and transformations in management services, allowing digital DNA to permeate various educational scenarios. At the meeting, **Prof. LI Yanyan**, a professor from the Faculty of Education at Beijing Normal University, presented the results of the project titled "Smart Education Agent Platform and Scenario Applications Based on Vertical Large Models," aiming to provide specific technical support and application services for different scenarios in higher education and basic education, thereby better serving teaching, learning, and research. The platform has four core capabilities: knowledge point recognition, knowledge Q&A, future teaching activity design, and addressing difficult questions. **Mr. LI Ying**, Secretary General, China Educational Equipment Industry Association (CEEIA), pointed out that the governance of smart campuses should be based on standards and guided by ethics. To promote healthy and sustainable development, a dual-driven system of "institutional innovation + institutional safeguards" must be established. **H.E. Dr. Ali Haidar Ahmed**, Minister of Higher Education, Labour and Skills Development, Maldives, emphasized that the construction of smart campuses is not only an infrastructure project but also a strategic initiative. He highlighted that digital architecture, interconnectivity, and user-centered design are key factors. It is essential to meet the needs of students, educators, and administrative management at a strategic level, ensure seamless connectivity through interconnectivity, and create an adaptive learning environment.

**Innovation Future Learning Center: Building a New Paradigm for Lifelong Learning with Privacy Protection.**

The model of the Innovation Future Learning Center aims to align with the concept of lifelong learning, firmly ensuring privacy protection while constructing an open and integrated smart learning ecosystem. It connects formal and informal learning spaces, providing students with a seamless growth experience. **Mr. ZENG Dehua**, Deputy Director, Center for Education Management Information, Ministry of Education, P.R. China, pointed out that through smart classrooms, virtual experiments, and intelligent assessments, as well as integrated teaching spaces that connect schools, families, and society, it is possible to streamline the entire educational chain from teachers' theoretical teaching to experiments, practical training, and internships. This will facilitate the connectivity and application of learning space data, creating a seamlessly integrated smart learning environment. **Mr. LI Hao**, Director of the Shandong Provincial Center for Educational Technology, shared Shandong's experience in digital transformation. He noted that by building robust infrastructure to strengthen the foundation of educational digitalization, the province has made significant progress since launching its dedicated education network in 2023. Shandong has achieved interconnection between the provincial network, universities, and municipal metropolitan area networks. As part of the Shandong Computing Network Platform, the province has also established connectivity with computing centers both within and outside Shandong, initially forming a computing service network that spans the province and the nation. This development has effectively reduced the network costs associated with AI applications while ensuring that data remains within designated domains and campuses, thereby meeting stringent data security requirements. **Ms. Isabell Kempf**, Director, UNESCO Institute for Lifelong Learning (UIL) , called for the establishment of open-source digital public infrastructure to support the open and equitable development of lifelong learning. She emphasized the importance of ensuring universal access to learning tools while upholding strict protections for user privacy.

## Cultivating Digital Education Leadership and Execution Capabilities that Effectively Utilize Technology and Excel in Governance

**From Tool Application to Ecological Restructuring: Driving High-Quality Development in Education with Technology and Data.**

The digitalization of education is shifting from a purely tool-oriented approach to a strategic level that reshapes the educational ecosystem. By driving profound changes in teaching and management models through technological innovation, and promoting scientific decision-making and the modernization of governance systems with data intelligence, we inject core momentum into the high-quality development of education. According to **Mr. SHAN Zhiguang**, Director, Department of Informatization and Industrial Development, National Information Center of China, the integration of digital intelligence technology and education has evolved from a "multiple-choice question" at the national level to an "essential question" in the context of educational high-quality development, as well as a "buzz-in question" that determines the future competitiveness of education. **Mr. LIU Chang**, Founder and CEO of 17 Education & Technology Group Inc., stated that the front end of digital transformation encompasses all teaching scenarios, including "lecture, practice, assessment," with the support of large models in the middle and data accumulation at the base. He emphasized that the more scientifically the large models are trained, the better the entire chain from lecture, practice, assessment, to tutoring will help schools become smarter. **Dr. Shahbaz Khan**, UNESCO Regional Office for East Asia, emphasized the importance of leadership, noting that from policymakers to school principals, effective leadership is essential for integrating technology into high-quality education.

**Creating a composite teaching force to support the digital transformation of education.**

Creating a composite teacher echelon that is both innovative, decision-making and practical is an important support for promoting the digital transformation of education, and can provide a solid human foundation and sustained implementation momentum for education reform.

**Mr. ZHAO Xin**, Deputy Director of the Department of Teacher Education, Ministry of Education, P.R. China, pointed out that China attaches great importance to the digital transformation of the teaching force, builds new paths and models for teacher development in the age of intelligence with a systematic mindset, and continuously improves teachers' digital literacy. The education department has issued the Notice on the Implementation of Digital Empowerment Teacher Development Action to expand the supply of high-quality educational resources and services by taking the integration and innovative application of digital and artificial intelligence technologies as a traction, opening up a new track for teacher development, and shaping a new advantage for teacher development. **Dr. Song Hae-deok**, President, Korean Society for Educational Technology (KSET), mentioned that it is crucial to develop standards for teacher training and digital operations to ensure that teachers are able to fully master digital technologies and sustain their professional development during the digital transformation process in Korea. **Prof. HU Xiaoyong**, Director of the Teacher Development Center, South China Normal University, suggested that future teacher development should strengthen digital infrastructure, create a new teacher education ecosystem, promote digital practices, and explore a new model of practical training for future teachers. **Prof. Tran Thanh Nam**, Vice-Rector, University of Education, VNU Hanoi, shared Vietnam's National Plan 2025. He noted that AI will play a key role in digital training and administrative processes, and educators need to fully understand and use AI and digital tools. Meanwhile, Vietnam's national policy and investment will also focus on supporting the expansion of digital infrastructure.

## Bridging the Digital Divide and Promoting the Universal Availability and Balanced Development of Quality Educational Resources

**Fostering digital literacy and bridging the “last mile” of comprehensive coverage is key to achieving balanced development in education.**

**Prof. Nancy Law**, Founding Director, Centre for Information Technology in Education (CITE), The University of Hong Kong, pointed out that the digital divide is not just a gap in accessibility, but also involves a gap in knowledge and skills. Without digital literacy, both students and teachers find it difficult to fully utilize advanced devices and technologies. **Dr. Natalia Amelina**, Senior National Project Officer and Chief of Unit of Teacher Professional Development and Networking, UNESCO IITE, stated that the primary challenge in bridging the digital divide is the insufficient preparation of teachers and a lack of formal training in artificial intelligence technologies. Therefore, enhancing AI literacy is particularly important in future educational systems. **Prof. Ahmed A. Al Khateeb**, Assistant Professor, King Faisal University, Saudi Arabia, emphasized that successful governance of smart education requires ensuring that teachers, administrators, and students possess solid AI literacy. He stressed that understanding the concepts and capabilities of AI, as well as mastering its ethical use, are prerequisites for participating in the design of educational policy and advancing smart education development.

**Building and sharing quality resources and building an open and innovative digital content ecosystem.**

Promoting the digitalization of education requires the co-construction and sharing of quality resources, building an open and innovative digital content ecosystem, and providing equitable educational opportunities for all types of learners. **Dr. Obijiofor Aginam, Director**, UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (UNESCO MGIEP), noted that while digital innovation plays a crucial role in education, disparities in regional development mean that not all students are able to use digital tools effectively. He emphasized the need to strengthen lifelong learning and create a more equitable environment for access to educational resources. **H.E. Mr. Douglas Munsaka Syakalima**, Minister of Education, Zambia, said that some countries in Africa face a shortage of resources. He called on policymakers to introduce mandatory policies to ensure that teachers are equipped with smart devices and have access to the necessary teaching resources to help students learn and bridge knowledge and education gaps. **Ms. ZHANG Huimin**, Director of Shenzhen Education Information Technology Center, shared her experience in building future learning centers. She mentioned that by

linking party service centers, science museums and enterprises to form a network, learners who are unable to complete their regular studies at school can continue their education at the nearest learning center through flexible learning, and are equally capable of completing their learning tasks at the compulsory education level.

The Global Smart Education Conference 2025, held under the theme “Human–AI Collaboration: Reshaping the Educational Ecosystem for the Future,” successfully brought together experts, scholars, and frontline educators from education, technology, and industry, both in China and around the world. The conference explored in depth how emerging technologies can be integrated into education, sharing innovative practices in collaborative teaching, learning, and governance. It offered important insights for building a safe, efficient, and sustainable new ecosystem of smart education.

Through diverse formats—including policy dialogue, experience sharing, and joint initiatives—the conference strongly promoted the global circulation and inclusive sharing of high-quality educational resources. Its influence is both profound and enduring, contributing distinctive Chinese perspectives and solutions to global educational reform while accelerating the advent of a new era of smart education.

Looking ahead, as the outcomes of the conference are gradually implemented and scaled up, smart education is poised to play an even more transformative role on the global stage.


**Group Photo of Guests at Opening Ceremony**

# Introduction


Since its inception in 2020, the Global Smart Education Conference has served as a crucial platform for international collaboration and exchange in smart education. The 2020 edition, held on August 20th-22rd, explored the theme *AI and Futures of Education*. It aims to further understand the latest achievements and development trends in smart education, fully grasp the influences of AI on the futures of education, and discuss the factors, features, plans, and potential problems in IT-driven educational development.


With a focus on identifying the promise of futures of education, the Global Smart Education Conference 2021 was held on August 18th-20th, 2021, with the theme of *Smart Learning and Futures of Education*. The plural form of “Futures” emphasized multiple dimensions of the future and appealed to reimagine how education and knowledge shall shape the future of humanity in a context of complexity, uncertainty, and precarity.


The Global Smart Education Conference 2022 was held on August 18th-20th, exploring the theme *Intelligent Technology and Digital Transformation in Education*. It put emphasis on how intelligent technologies empower smart education, digital transformation in regional and rural education, the futures of education in the eyes of teachers and students, how digital governance of education can be enhanced to direct intelligent technologies to the common good for education and humanity.


The Global Smart Education Conference 2023, convened from August 18 to 20, delved into the theme of *Education Transformation and Data Governance*. It underscored the relentless global march towards digital transformation in education, emphasizing the ever-growing prowess of technology in empowering educational advancements. It highlighted the mounting urgency for effective data governance, fueled by the rising need for accountability and efficiency.


The Global Smart Education Conference 2024, convened from August 18 to 20, centered on the theme of Educational Transformation & International Understanding. The conference highlighted the accelerating trajectory of digitalization and transformation within the global education landscape, drawing attention to the digital strategies and long-term planning emerging across the international community. It explored practical pathways for advancing the digital transformation of education, reflected on pressing issues and challenges facing education systems worldwide, and facilitated the exchange of new theories, technologies, perspectives, and achievements in the field of smart education.

The **Global Smart Education Conference 2025** was held from August 18 to 20, 2025. As the focal point of this report, the Conference featured 589 speakers from 69 countries and regions, including experts from international organizations, leading academic institutions, and the private sector. The event comprised 2 plenary sessions, 17 parallel sessions, 8 thematic activities, 3 closed-door meetings, 6 student-centered activities, as well as the release of several international research findings. Together, these sessions explored innovative pathways for the deep integration of emerging technologies and education, shared new practices in human–AI co-education, co-teaching, and co-learning, and examined how to build a safe, efficient, and sustainable new ecosystem for smart education.

The Conference successfully seized this pivotal opportunity to build global consensus and momentum in education, deepen cross-regional and cross-sector collaboration, and advance a shared vision of Smart Education for all. By positioning educational transformation as a powerful lever for sustainable development, the Conference injected renewed vitality into global efforts toward the SDGs and reaffirmed the collective commitment to shaping a fairer, more prosperous, and better future for humanity through determined action and continuous cooperation.

# 2025 GLOBAL SMART EDUCATION CONFERENCE

08.18-08.20 Beijing·China

——The Annual Conference of GSENet

## Human-AI Collaboration: Reshaping the Educational Ecosystem for the Future

| Date | Time | Sports Hall | Lecture Hall I | Lecture Hall II | BNU Square | Thematic Activity | Closed-Door Meeting |
|---|---|---|---|---|---|---|---|
| Mon 18th Aug | 9:00-12:30 | Opening Ceremony and Plenary Session<br>Human-AI Collaboration: Reshaping the Educational Ecosystem for the Future | | | | | |
| | 14:00-18:00 | Parallel Session: Quality Higher Education with Smart AI | Parallel Session: Science of Learning and Human-AI Collaboration | Parallel Session: Leadership and Digital Transformation | Sino-Finnish Smart Education Forum and JoLII 10th Anniversary Ceremony | China-Southeast Asia Capacity Development Workshop | Ministerial Round Table |
| Tue 19th Aug | 9:00-12:30 | Parallel Session: Digital Transformation in TVET | Parallel Session: AI and STEM Education in K12 Schools | Parallel Session: Smart Learning and Care in Kindergarten | Principals' Forum for the Quality Development of Schools | Global Finals of the 8th Global Competition on Design for Future Education (K12 Track) | Roundtable on Women's Leadership in AI |
| | 14:00-18:00 | Parallel Session: Towards Smart Education Ecosystems | Parallel Session: Smart Learning Environments: Policy and Practice | Parallel Session: Rethinking Assessment in the Age of AI | Parallel Session: Smart Villages and Education for Rural Transformation | AI and Computational Thinking Workshop for Schools | GSENet Partners' Meeting |
| Wed 20th Aug | 9:00-12:30 | Parallel Session: Empowering Teachers through AI-Driven Continuous Professional Development | Editors' Forum on Academic Research and Publishing | Parallel Session: Academy-Industry Partnerships for Talent Cultivation | Parallel Session: Reimagining Lifelong Learning in the Digital Age | UNESCO Chairs Conversation Salon | |
| | 14:00-17:00 | Parallel Session: Sharing Best Practices in Smart Teaching | Parallel Session: Digital Strategies for Educational Development in Schools and Regions | Parallel Session: Smart Reading | Teachers' Forum on Smart Education & Awarding for Best Practice of Smart Education | Student Forum on Innovative Design in Human-AI Collaboration | |
| | 17:30-19:00 | Closing Ceremony | | | | | |

### Opening Ceremony and Plenary Session: Human-AI Collaboration: Reshaping the Educational Ecosystem for the Future

This conference brings together experts and scholars from the fields of education, technology, and industry, as well as frontline educators from both China and abroad, to jointly explore innovative pathways for the deep integration of emerging technologies and education. Participants share new practices in human–machine co-nurturing, co-teaching, and co-learning, and reflect on how to build a safe, efficient, and sustainable new ecosystem for smart education.

### Parallel Session: Quality Higher Education with Smart AI

This session aims to explore pathways for integrating artificial intelligence with higher education, application scenarios of AI and Higher Education, cultivation of AI professionals, intelligent transformation of university governance capabilities, risks and ethical boundaries of smart education, the mission of universities and strategic transformation in the AI era, along with international cooperation in higher education, etc.

### Parallel Session: Science of Learning and Human-AI Collaboration

This session explores:
Optimizing instructional design based on cognitive psychology and learning mechanisms.
Constructing lifelong learning systems grounded in learning sciences.
Pathways for teacher professional development and enhancing human-AI collaboration capabilities.
Building fair, interpretable, and learner-autonomy-respecting AI-assisted teaching frameworks.
Large-scale AI models supporting human-AI collaborative teaching.

### Parallel Session: Leadership and Digital Transformation

This session aims to explore the digital transformation of education in the intelligent era, digital governance in regional and school education, digital leadership in education, educational leadership practices during digital transformation, policies for digital transformation in education, intelligent monitoring of educational quality, ethics of AI in education, modern educational governance systems driven by new technologies, along with sustainable development mechanisms for smart education, etc.

### Sino-Finnish Smart Education Forum & JoLII 10th Anniversary Ceremony

Marking the 10th anniversary of the Sino-Finnish Joint Learning Innovation Institute (JoLII) at Beijing Normal University, the Smart Education Forum will showcase a decade of collaborative research and pioneering practices developed by Chinese and Finnish scholars. Honouring past achievements while setting the course for the future, the forum seeks to generate fresh insights and forward-looking solutions for global education by harnessing the power of AI. The programme features the JoLII anniversary celebration, keynote speeches by distinguished experts from both countries, and panel discussions.

### Parallel Session: Digital Transformation in TVET

This session aims to explore the reform of teaching methodologies in vocational institutions driven by digitalization, the development and implementation of digital teaching platforms, applications of generative AI, the application of AI in intelligent tutoring and assessment, innovative models of industry-academia collaboration during digital transformation, curriculum standards, new paradigms of on-demand learning, AI-assisted courseware production methods, along with lifelong service systems in TVET, etc.

### Parallel Session: AI and STEM Education in K12 Schools

This session aims to explore the construction of AI education systems and curriculum innovation in K12 schools, pathways for integrating science education with STEM education and pedagogical model restructuring, new practices in AI-enabled interdisciplinary teaching and project-based learning, effective cultivation of innovation literacy and computational thinking in basic education, exemplary cases of regional policy backing and curriculum system development, intelligent learning and experimental environments, along with AI-driven transformation in education, etc.

### Parallel Session: Smart Learning and Care in Kindergarten

This session aims to explore innovative human-AI collaborative education models and pedagogical scenarios in the intelligent era, pathways for optimizing regional governance mechanisms driven by digital intelligence technologies, future-oriented concepts and strategies for high-quality development, digital intelligence-enabled support systems for tripartite home-kindergarten-community collaboration, brain science and child development in kindergarten, along with practical case studies on the construction and implementation of smart kindergarten, etc.

### Principals' Forum for the Quality Development of Schools

This session aims to explore digital transformation in basic education, intelligent upgrading of school digital transformation, digital empowerment of innovative talent cultivation, school-based implementation pathways for integrating moral, intellectual, physical, aesthetic, and labor education, development of smart education ecosystems and digital governance in schools, nurturing and advancement of teachers' digital literacy, principals' digital leadership in institutional change, future-oriented and cloud-based schools, development trajectories of prestigious schools and principals, along with AI-driven construction and advancement of smart educational institutions, etc.

### Parallel Session: Towards Smart Education Ecosystems

This session aims to explore pathways towards a new phase of smart education, regional smart education ecosystems, AI-driven transformation in regional education, educational planning and governance in the intelligent era, digital transformation in regional and institutional education, support systems for educational digitization, along with joint pathways towards Education 2050, etc.

### Parallel Session: Smart Learning Environments: Policy and Practice

This session aims to explore the construction, the application and integrated solutions of smart learning environments, innovations in smart teaching scenarios with equipment deployment, implementation of large-scale models and AI agents in educational settings, data-driven modernization of governance, development of intelligent security protection systems, along with standardization and ecological coordination of educational equipment, etc.

### Parallel Session: Rethinking Assessment in the Age of AI

This session aims to build on the practical foundation of the Ministry of Education's pilot programme on "Information Technology Supporting Students' Comprehensive Quality Evaluation" and to explore, from multiple dimensions, the pathways through which artificial intelligence can empower educational evaluation. These include deeply integrating AI into the entire evaluation process to build an intelligent practical system; innovating regional comprehensive quality evaluation solutions by combining records of students' developmental processes with diagnostic results; and, in

alignment with national education reform strategies, advancing the application of AI-empowered comprehensive quality evaluation.

### Parallel Session: Smart Villages and Education for Rural Transformation

This session aims to explore visions, models and innovations of education and learning for smart villages; values, opportunities and challenges of technology-empowered rural education and development; international best practices of TVET digital transformation for rural transformation; and opportunities and challenges of STEM education in rural contexts, etc.

### Parallel Session: Empowering Teachers through AI-Driven Continuous Professional Development

This session aims to explore the conceptual dimensions and developmental pathways of AI literacy for teachers, scenario design and role allocation in human-AI collaborative teaching, strategies for promoting deep AI integration throughout educational processes including lesson preparation, tutoring, and pedagogical research, large-scale AI models for teacher education, empowered new mechanisms for teacher professional development, boundaries of ethical responsibilities for educators in the intelligent era, along with pathways to becoming AI-literate teachers, etc.

### Editors' Forum on Academic Research and Publishing

This session aims to explore the reconceptualization of educational research paradigms in the era of human-AI collaboration, writing and publishing in education, pluralistic construction and innovative dissemination of global educational discourse systems, support mechanisms for young scholars' professional development, along with strategies for writing, publishing, and journal running, etc.

### Parallel Session: Academy-Industry Partnerships for Talent Cultivation

This session aims to explore the systemic integration of technology and academy, technology transfer and commercialization pathways for industry-university-research collaborative innovation, establishment of resource-sharing mechanisms for smart education, development of cross-industry joint laboratories for integrated education, technology, and talent cultivation, design of synergistic innovation funds and open research initiatives for smart education collaborations, along with driving innovation in smart education through technological empowerment, etc.

### Parallel Session: Reimagining Lifelong Learning in the Digital Age

This session will explore:
Open University mechanisms for teaching and learning.
AI implementation in open and distance learning (ODL).
AI adoption in management, decision-making and leadership.
AI for micro credentials and certificates.
Quality assessment of Open and Distance Learning.
Pedagogical innovation in Open and Distance Learning.

### Parallel Session: Sharing Best Practices in Smart Teaching

This session aims to explore the core competencies and development pathways for exemplary teachers, ecosystem development of smart classrooms through large-and-small-screen convergence, pedagogical innovation driven by exemplary teachers, empowerment of exemplary teacher advancement in smart teaching, along with digital enablement for professional teacher advancement, etc.

### Parallel Session: Digital Strategies for Educational Development in Schools and Regions

This session aims to explore integrated, intelligent, and international development pathways, governance models for digital transformation, innovative practices advancing educational digitalization in schools and regions, applications of public smart education platforms, along with the role of educational technology enterprises in digital transformation, etc.

### Parallel Session: Smart Reading

This session aims to explore the significance and impact of the National Reading Campaign, effective approaches to cultivating reading habits, methodologies for delivering quality reading guidance, implementation of reading promotion initiatives, development of smart reading platforms and spaces, establishment of scholarly campus environments, along with narratives in reading, etc.

### Teachers' Forum on Smart Education & Awarding for Best Practice of Smart Education

This session aims to explore new paradigms of smart education empowered by technology, sustainability, and open collaboration, innovative models of exemplary teachers leading smart teaching, synergistic home-school-community educational partnerships, deep integration pathways for digital tools and disciplinary pedagogy, smart teaching and collaborative instructional research, outstanding smart education practices, professional growth trajectories of exemplary teachers, along with AI-empowered services for teachers' development, etc.

### Student Forum on Innovation Design in Human-AI Collaboration

In an era where Generative AI (GenAI) is profoundly reshaping the paradigm of human-computer interaction, this forum responds to UNESCO's initiative on the futures of education. Focusing on the core theme of Human-AI Symbiosis, this forum invites young students from across the globe to act as co-creators, jointly exploring the following: 1) Cognitive Symbiosis: How GenAI is reshaping human learning methods and ways of thinking. 2) Developmental Symbiosis: How GenAI can drive the cultivation of future core competencies. 3) Social Symbiosis: How GenAI can promote cross-cultural and intergenerational connections. 4) Ecological Symbiosis: How GenAI can innovate future learning fields and ecosystems.

### Thematic Activities: Ministerial Dialogue: Key Priorities for Education Beyond 2030

As the 2030 Agenda for Sustainable Development enters its final five years, most targets under SDG 4 remain unmet, highlighting the urgency for accelerated action. Beyond 2030, education systems worldwide must navigate a landscape reshaped by technological advancement—particularly the rapid evolution of AI where access to quality education and lifelong learning for all becomes a reality. Countries face divergent challenges: low-income nations strive to meet basic educational access targets, with forward-looking international reports such as the UNESCO report on 'Reimagining our futures together: A new social contract for education', which governments, institutions, organizations, and citizens worldwide to transform education, to build a peaceful, just and sustainable future for all. The digital divide, the lack of digital infrastructure, the inadequate number of trained teachers, and the quality of education are persistent challenges that need priority attention. In addition, ethical concerns around the responsible use of AI in education require urgent regulatory frameworks and guidelines. Meanwhile, the enormity of these educational challenges require joint action, especially with industry and the private sector. This roundtable brings together education ministers and key stakeholders to address these critical issues, fostering dialogue on strategies to accelerate progress towards SDG 4, and to outline the elements of the future of education that will equip all learners with the skills, competencies and the resilience to deal with an uncertain future.

### Thematic Activities: Roundtable on Women's Leadership in the Age of AI

Artificial Intelligence (AI) is revolutionizing every aspect of human life, yet gender disparities in leadership persist across global tech ecosystems. According to the World Economic Forum (2023), women hold just 22% of AI leadership positions globally, despite comprising 40% of the workforce in STEM fields. This gap reflects systemic barriers—from algorithmic bias amplifying gender stereotypes (UNESCO, 2021) to unequal access to technical training and mentorship (McKinsey, 2022). The IBM report, Female Leadership in the Age of AI (2024), shows that 73% of business leaders believe that increased female leadership in the sector is important for mitigating gender bias in AI. The "Women's Leadership in the Age of AI" roundtable brings together stakeholders from academia, industry, and government to examine these challenges through an inclusive lens. By focusing on diverse regional perspectives, we aim to encourage reflections, share examples of best practices and identify actionable strategies that work in specific contexts and transcend geographic boundaries.

### Thematic Activities: Global Smart Education Network (GSENet) Partner Meeting

The GSENet Partner Meeting serves as the annual gathering of all network partners, bringing together representatives from member institutions, organizations, and initiatives worldwide. The meeting provides a platform to review the achievements and progress of the past year, share experiences and best practices, and engage in collective discussions to identify priorities and strategies for the year ahead. By fostering open dialogue and collaboration, the Partner Meeting strengthens the Network's shared commitment to advancing smart education globally and enhancing its impact through coordinated action.

### Thematic Activities: China-Southeast Asia Capacity Development Workshop

Technical and Vocational Education and Training (TVET) serves as a vital bridge linking education and employment. It is also a key pillar for China-ASEAN cooperation. Centering the theme of "TVET Digital Transformation for Sustainable Rural Development", the workshop will examine the imperative and innovations in TVET digital transformation, identify effective strategies of TVET for sustainable rural development, and steer the process towards building more inclusive and sustainable societies.The workshop will bring together TVET policymakers, TVET institution leaders, researchers and practitioners, representatives from international and regional organizations, as well as industry representatives from around the world, particularly from China and Southeast Asian countries.

### Thematic Activities: AI and Computational Thinking Workshop for Schools

This program explores implementation pathways for AI and computational thinking education in K12 schools, cultivates youth governments, institutions, organizations, and citizens worldwide to transform education, to build a peaceful, just and sustainable future for all. The digital divide, the lack of digital infrastructure, the inadequate number of trained teachers, and the quality of education are persistent challenges that need priority attention. In addition, ethical concerns around the responsible use of AI in education require urgent regulatory frameworks and guidelines. Meanwhile, the enormity of these educational challenges require joint action, especially with industry and the private sector. This roundtable brings together education ministers and key stakeholders to address these critical issues, fostering dialogue on strategies to accelerate progress towards SDG 4, and to outline the elements of the future of education that will equip all learners with the skills, competencies and the resilience to deal with an uncertain future.

## Thematic Activities: UNESCO Chairs Closed-Door Salon

UNESCO Chair is a program established by a university or research institution in cooperation with UNESCO. It promotes global collaboration in a specific academic field through knowledge sharing, information exchange, and resource integration, helping address major social challenges and advance the United Nations Sustainable Development Goals.

This exclusive salon at GSE2025 convenes 8 UNESCO Chairs and UNESCO HQ representatives for curated dialogues. Centered on AI in education research, digital equity innovations, and rapid-response networks, it transforms informal conversations into actionable partnerships. Attendance is by invitation only.

## Thematic Activities: Global Finals of the 8th Global Competition on Design for Future Education (K12 Track)

To better cope with the uncertainties and challenges in the future, and explore innovative solutions for high-quality education for all, Beijing Normal University has launched the Global Competition on Design for Future Education (GCD4FE) since 2018. To date, the competition has been successfully held for seven consecutive sessions, garnering widespread attention and active participation globally. The 8th GCD4FE focuses on six themes: AI and Education, Metaverse and Education, Rural Education, Inclusive Education, Educational Neuroscience, and AI and Engineering. Co-organized by Beijing Normal University and the UNESCO Institute for Information Technologies in Education, the competition launched a teaching case-study collection initiative for primary and secondary school teachers, kindergarten educators, and others engaged in basic education worldwide. Thousands of participants registered for this edition. A panel of expert judges in education and design evaluated the submissions based on problem awareness, innovation spirit, science and education integration, application prospect, and presentation and expression. Ultimately, 22 outstanding teaching case studies were selected for the finals. The Global Finals of the 8th Global Competition on Design for Future Education (K12 Track) will be held offline at the Changping Campus, Beijing Normal University on August 19.

## Thematic Activities: Student Forum on Innovative Design in Human-AI Collaboration

The “Youth Enlightenment Student Forum”, independently organized, designed and curated by students, centers on frontier topics including the integration of generative artificial intelligence with education, human-machine collaborative practices, the enhancement of teachers’ digital literacy, and interdisciplinary innovation. It assembles young researchers to conduct in-depth deliberations on new pathways, new paradigms, and emerging challenges amid the digital transformation of education. With “enlightenment” as its core tenet, the forum not only establishes a platform for academic exchanges and ideological interactions but also manifests the exploratory vitality of young scholars in the domain of educational innovation, infusing youthful wisdom and practical impetus into advancing the high-quality development of education. This forum has gathered more than 90 young researchers from over 20 universities at home and abroad.

# Opening Ceremony & Plenary Session on Human-AI Collaboration: Reshaping the Educational Ecosystem for the Future

The transformations of the world, the times, and history are unfolding in unprecedented ways, as rapid technological advancements are reshaping the landscape of education. The digitalization of education represents not only a new frontier in educational development but also a crucial path to fostering new advantages in digital education. UNESCO advocates for the establishment of a new social contract, leveraging digital technology to deliver benefits to education and underscore its status as a global public interest. The United Nations Transforming Education Summit calls on all countries to fully harness the power of the digital revolution to drive global educational change, ensuring that quality education and lifelong learning become common interests and shared values for all humanity. As a new form of education in the digital era, smart education is an inevitable choice for promoting equity, inclusivity, and high-quality development in education.


**Photo of Guests from Opening Ceremony**

## A Conference on Co-Creating the Ideal Vision of Smart Education

At the beginning of the “inaugural year of smart education,” the digital transformation of education is ushering in a critical breakthrough. Smart education, as the “ideal” state of educational reform and development in the intelligent era, is the target form of the digital transformation of education. Building a community with a shared future for smart education requires the collaboration of governments, schools, enterprises, and other stakeholders to jointly address the challenges of new technologies, seize new opportunities in educational development, and lay the foundation for cultivating talents capable of adapting to future advancements.

## SPEAKERS

**Prof. YU Jihong**
President, Beijing Normal University, China

**H.E. Mr. WU Yan**
Vice Minister of Education, P.R.China

**Mr. TANG Qian**
Former Assistant Director-General for Education, UNESCO

**Ms. Stefania Giannini**
UNESCO Assistant Director-General for Education

**H.E. Prof. Mohamed Ould Amar**
Director General, Arab League Educational, Cultural and Scientific Organization (ALECSO)

**Miss. Anita Yuen Mei Fung**
BBS, JP; Steward, The Hong Kong Jockey Club

**Prof. CHEN Li**
Faculty of Education of Beijing Normal University, China

**Prof. HUANG Ronghuai**
Co-Dean, Smart Learning Institute of Beijing Normal University, China; UNESCO Chair on AI in Education

**H.E. Ms. Dubravka Bošnjak**
Minister of Civil Affairs, Bosnia and Herzegovina

**H.E. Prof. Marie-Thérèse Sombo Ayane Safi Mukuna**
Minister of Higher Education and Universities, Democratic Republic of the Congo

**H.E. Prof. Ali Haidar Ahmed**
Minister of Higher Education, Labour and Skills Development, Republic of Maldives

**H.E. Mr. Moustapha Mamba Guirassy**
Minister of National Education, Republic of Senegal

**H.E. Mr. Douglas Munsaka Syakalima**
Minister of Education, Republic of Zambia

**H.E. Prof. Sherif Kishk**
Assistant to the Minister for Smart Governance, Higher Education and Scientific Research, The Arab Republic of Egypt

**Mr. GUO Xinli**
Vice President of the China Association of Higher Education, China

**Prof. WANG Xiaoyun**
Tsinghua University, China; Academician of the Chinese Academy of Sciences; Laureate of the L'Oréal-UNESCO For Women in Science International Awards

**Dr. Manos Antoninis**
Director, UNESCO Global Education Monitoring (GEM) Report

**Mr. LI Yongzhi**
President, China National Academy of Educational Sciences (CNAES)

**Prof. Asha S. Kanwar**
Chair of Governing Board of UNESCO IITE; Chair Professor, Beijing Normal University

**Prof. LIU Dejian**
Founder & Chairman, NetDragon Websoft Inc.

**Dr. Simon Leung**
Chairman & Executive Director, NetDragon Websoft Inc.

**Mr. Omar Baig**
Chief Information and Technology Officer (CITO), UNESCO

**Mr. YUAN Jun**
Vice President of the National Data Development Research Institute, China

**Mr. NIE Xiaolin**
Co-Founder, Board Member and Senior VP, iFLYTEK Co., Ltd., China

**Prof. Curtis J. Bonk**
Professor, Indiana University, USA

**MODERATORS**

**Prof. CHEN Xing**
Vice President, Beijing Normal University, China

**H.E. Prof. Kaviraj Sukon**
Minister of Tertiary Education, Science and Research, Republic of Mauritius

**Prof. ZHAN Tao**
Director, UNESCO Institute for Information Technologies in Education (UNESCO IITE)

**Dr. Sarena Shivers,** Board of Directors, The International Society for Technology in Education (ISTE); CEO/Executive Director of Michigan's Talent Together

**Datuk Dr. Habibah Abdul Rahim**
Director, Southeast Asian Ministers of Education Organization (SEAMEO) Secretariat

**Prof. YU Jihong**, President of Beijing Normal University, delivered the opening remarks. She emphasized that with the rapid development of generative artificial intelligence and big data technologies, education is undergoing profound transformation, and digital transformation is an inevitable direction for global educational reform. Beijing Normal University is actively responding to the national call by advancing the demonstration project of the Educational Digitalization Strategy, launching the special reform initiative "AI + Higher Education," and fully implementing the Competent Teacher Project. She called on all sectors of the global community to explore new pathways for smart education through open dialogue and collaborative practice, jointly injecting fresh momentum into educational transformation.

It is a great honor to gather with colleagues from around the world at the Changping campus of Beijing Normal University for the Global Smart Education Conference 2025. On behalf of Beijing Normal University, I would like to extend the warmest welcome to all the guests who have traveled from afar, express my highest respect to all researchers and practitioners who are driving educational transformation in the era of artificial intelligence, and convey my heartfelt thanks for your long-standing care and support for Beijing Normal University!

Currently, generative artificial intelligence and big data technology are evolving at an exponential rate, and education is undergoing profound reshaping. Digital transformation has become an inevitable direction for global educational reform. At present, China is continuously promoting the digital strategy in education, which not only injects new momentum into its own high-quality educational development but also provides a practical model for the world in bridging the digital divide and promoting educational equity. Meanwhile, we also see that in order to better tackle challenges such as the solidification of digital barriers in education, imbalances in educational resources, and concerns over data security, it is necessary for global colleagues to unite in consensus, collaborate to break the deadlock, and continuously gather strength to build a community with a shared future for mankind, with the goal of promoting human well-being.

President XI Jinping pointed out that the digitalization of education is an important breakthrough for our country to open up new avenues for educational development and to shape new advantages in education. *The 2024-2035 Master Plan on Building China into a Leading Country in Education* proposes the implementation of a national education digitalization strategy to promote the transformative role of artificial intelligence in education. As a leader institution in teacher education in China, Beijing Normal University firmly believes that higher education institutions are a crucial hub connecting the foundations of basic education with the leadership of higher education. It bears an irreplaceable mission in the process of improving the quality and literacy of the entire population, deepening the digital transformation of education, and building a strong educational nation.

In recent years, we have actively promoted the demonstration project for the digitalization strategy in education, launched a special plan for AI + higher education teaching reform, implemented a Competent Teacher Project aimed at underdeveloped regions in the western part of the country, and stepped into a new phase of smart education, focusing on cultivating future teachers with quality and competency. At the international level, we leverage platforms such as the Institute of Global Teacher Development, the UNESCO International Research and Training Centre for Rural Education, and the UNESCO Chair on AI in Education to deepen global engagement. As the first chairing institution and joint secretariat of the World Digital Education Alliance, we are committed to facilitating the cross-border exchange of digital education concepts and resources, and to contributing Chinese experience and perspectives to the advancement of global digital education.

Ladies and gentlemen, friends, what is the role of education in the intelligent era? This is a pressing question that we must all answer together, a global issue that requires our attention. Standing at a crucial crossroads of the digital transformation in education, universities must earnestly take on the important mission of pioneering new educational models and promoting educational development and reform.

Firstly, we must actively lead the transformation of digital education, comprehensively serving the deep integration of artificial intelligence with education and teaching. We should focus on higher education itself, driving the establishment of a collaborative integration model between artificial intelligence, learners, and educators. This includes enriching digital educational resources in universities, innovating teaching methods, transforming learning environments, and creating an intelligent and personalized new ecosystem of education. Additionally, we should focus on basic education, promoting digital transformation in curricula, textbooks, and teaching methods across different educational stages, striving to become pioneers and leaders in the digital transformation of education.

Secondly, we need to actively innovate talent cultivation models. This should be aligned with the needs of the intelligent era, emphasizing the enhancement of the qualities and skills of both teachers and students. We must strengthen the innovative application of new technologies and knowledge, such as artificial intelligence, in talent cultivation models, allowing students to develop critical thinking and innovative abilities in real scientific research scenarios, and nurturing practical competencies for the intelligent era, thus constructing new models for the growth of outstanding innovative talent.

Thirdly, we will continuously explore interdisciplinary integration. Universities should address the new circumstances of the intelligent era, adhering to demand-oriented and problem-oriented approaches. We must promote deep integration between artificial intelligence and scientific research, as well as discipline construction, to establish new paradigms of "artificial intelligence + interdisciplinary

integration." This will involve strengthening a number of cutting-edge emerging disciplines and interdisciplinary fields, opening up new paths for major original innovations to solve significant scientific challenges.

Fourthly, we should continuously deepen digital educational cooperation. Universities, both domestic and international, should maintain open collaboration, jointly promoting the co-construction and sharing of high-quality digital educational resources. We need to work together to advance global digital education governance, build an international research network and innovation platform for digital education, and collectively support the long-term development of education for all of humanity.

Beijing Normal University warmly invites leaders and experts from the global education, technology, and industry communities to engage in open dialogue, exchange insights, and share innovative achievements through collaborative practice. Together, we seek to explore new frontiers, contributions, and pathways for smart education, and to inject renewed momentum into the global digital transformation of education.

**H.E. Mr. WU Yan**, Vice Minister of Education of China, attended the meeting and delivered a speech. He emphasized that the Chinese government places great importance on the digitalization of education, viewing it as a critical breakthrough to open up new avenues for educational development and to create new competitive advantages. China is promoting the deep integration of artificial intelligence into various fields of education, and the strategic actions taken over the past three years have brought about five major transformations. He outlined China’s smart education development framework, characterized by the “Three New Dimensions” and the “Four Futures,” and called for concerted global action to move beyond conventional educational paradigms. He also urged stakeholders worldwide to strengthen collaboration and jointly advance a more inclusive, innovative, and sustainable era of smart education.

I am very pleased to have the opportunity to gather with all the esteemed guests here at Beijing Normal University to attend the Global Smart Education Conference 2025. The theme of this conference is " Human-AI Collaboration: Reshaping the Educational Ecosystem for the Future" which I believe is an excellent choice. First, it has international advanced significance; second, it directly relates to China's new journey in building a powerful education nation, which is a very important theme. On behalf of the National Commission of the People’s Republic of China for UNESCO under the Ministry of Education, I would like to extend my warm congratulations on the successful convening of this Conference, offer a sincere welcome to all distinguished participants, and express my heartfelt appreciation to the organizers—Beijing Normal University and the UNESCO Institute for Information Technologies in Education—as well as to colleagues from across sectors who have long supported and contributed to the advancement of educational reform and development in China.

The Chinese government attaches great importance to the work of educational informatization and the digital transformation of education. President XI Jinping pointed out that digitalization in education is an important breakthrough for opening up new avenues for educational development and shaping new advantages in development. In March 2022, the Ministry of Education of China officially launched the National Digital Education Strategy Action Plan. Guided by the “**3C**” framework—Connection, Content, and Cooperation—and oriented toward the “**3I**” priorities of Integration, Intelligence, and Internationalization, China has established the National Smart Education Platform. This platform has formed a new national framework for smart education, structured around four horizontal dimensions—basic education, vocational education, higher education, and lifelong

learning—and five vertical dimensions—moral education, intellectual development, physical education, aesthetic education, and labor education. Together, these dimensions constitute an integrated “four-horizontal, five-vertical” architecture, supporting equitable access, high-quality resources, and the coordinated development of education across all stages and domains.

Currently, this platform has accumulated over 67 billion views and has more than 169 million registered users, covering over 200 countries and regions. It has truly become the largest public resource platform, public service platform, and lifelong learning platform in the world. At the same time, we have hosted five World MOOCs and Online Education Conferences and have held the World Digital Education Conference for three consecutive years, sharing the achievements of digital educational development with educational peers from around the globe and jointly promoting the globalization and advancement of education.

As we all know, artificial intelligence technologies are advancing at an extraordinary pace, undergoing rapid iterations. According to our estimates, global AI technologies are updated every three to six months, bringing profound and far-reaching impacts on human production, daily life, and even ways of thinking and learning. Through our practice in promoting educational reform, we have gained a deep understanding: in the era of intelligence, the digitalization of education is not merely a technical issue, but a top strategic priority that affects—and even determines—the success and quality of building a strong nation in education.

Based on this recognition, the Ministry of Education of China actively promotes the in-depth and extensive application of artificial intelligence in the field of education. From learning formats to learning and teaching methods, and from governance services to scientific research and innovation, the Chinese education system is undergoing a profound transformation and revolution. **We have implemented the National Digital Education Strategy Action for three years, achieving five significant changes:**

**The first change is that artificial intelligence is transforming how students learn.** We encourage schools to use AI to create new learning spaces and innovate learning methods, supporting a more equitable, intelligent, and convenient form of education. By customizing training programs based on artificial intelligence, students from different regions, schools, and ethnic backgrounds can access high-quality educational resources equally, truly realizing the idea of inclusive education in the era of intelligence. Let me share a personal example: at a special education school in Changde City, Hunan Province, abstract knowledge is presented in a visual way, which has effectively increased the classroom participation, focus, and confidence of students with intellectual disabilities. They strive to provide every special child with a higher quality, more enriching education. When I witnessed this, I was brought to tears, as I believe artificial intelligence has truly made our special education less special in a good way. Therefore, we apply artificial intelligence to student learning. It plays a crucial role not only for students with normal cognitive abilities but also for those with intellectual challenges. We enhance the dynamic collection and deep analysis of students' learning data, enabling learners to engage in more personalized and adaptive learning in freely constructed learning spaces. By integrating quality educational resources through the national intelligent public service platform, we open these resources to society at large. We are committed to building a learning society where everyone can learn anytime and anywhere.

**The second change is that artificial intelligence is transforming teachers' instruction.** We encourage schools to integrate AI into the entire teaching process—before, during, and after class—so that teachers can use AI to autonomously generate lesson-preparation resource packages, differentiated teaching recommendations, and instructional flowcharts, thereby supporting the accumulation, refinement, and sharing of high-quality lesson plans, exemplary assignments, and curriculum materials. Just before the session, I visited the exhibition, and I saw that in the domain of teaching, particularly in the development of knowledge graphs, rapid iterations are already underway, yielding impressive results.

**The third change is that artificial intelligence is transforming school management.** Many schools are utilizing AI to genuinely enhance the effectiveness of educational decisions, precise management, and personalized services. Relying on the National Education Big Data Center, we are promoting data sharing between the Ministry of Education's platform and various schools, focusing on the difficult and bottleneck issues that teachers and students are concerned about, as well as frequently handled matters. We are optimizing service processes and improving service experiences, allowing teachers and students to reduce their need to move around while increasing data mobility. We strive to achieve a goal where teachers and students may only need to make one trip, or ideally, no trips at all. We are organizing pilot projects that support the evaluation of students' comprehensive qualities through information technology, involving 38 areas across 28 provinces and municipalities, covering over 8,000 primary and secondary schools and more than 4 million students. This initiative explores innovative pathways for a comprehensive evaluation reform of students, constructs big data analysis decision-making indicators, aggregates system analyses in real-time, deeply excavates data value, and promotes the shift of educational decision-making from being experience-driven to data-driven, thereby enhancing the intelligence level of educational governance.

**The fourth change is that artificial intelligence is transforming the paradigm of research in higher education institutions.** Big data, powerful computing, and large models are changing the research methods of universities, enabling breakthroughs in natural sciences and engineering research through artificial intelligence, with some fields achieving international leadership. For example, the research conducted by the University of Science and Technology of China on the Zu Chongzhi No. 3 has showcased a speed in solving the quantum random circuit sampling problem that is a trillion times faster than the current fastest supercomputer. This has truly brought about revolutionary change. In the development of biopharmaceuticals, artificial intelligence has increased the speed of traditional synthetic biology by dozens of times, resulting in transformative changes. In empowering social science research, we are actively promoting the construction of the first batch of 30 philosophy and social science laboratories under the Ministry of Education, creating big data-based research platforms to address significant theoretical and practical issues, effectively promoting interdisciplinary integration and innovation.

**The fifth change is that artificial intelligence is currently and will continue to transform the nature of education.** The traditional relationship between teachers and students has evolved into a relationship where teachers are also learners. The physical space of traditional schools is undergoing changes and is about to experience a revolutionary transformation. These five significant changes represent the five strategic developments over the past three years in implementing China's digital education strategy.

Ladies and gentlemen, friends, in May of this year, at the World Digital Education Conference held in Wuhan, China, we officially launched the "*White Paper on China's Smart Education*" marking the first government white paper on smart education released by governments around the world. We systematically outlined the development concepts, strategies, initiatives, and achievements of digital education in China, vividly drawing a blueprint for education and transformation in the smart era. We also proposed the judgment that 2025 will be the global landmark year for smart education.

Over the past three years, we have proposed a "Three New, Four Futures" framework to guide the future development of smart education. This framework advances three key judgments. The first "new" concerns the new stage of educational development. We believe that education systems

worldwide are moving beyond digitalization and digital transformation and entering a new phase of smart education. The second “new” relates to a new standard for the quality of talent cultivation. Artificial intelligence is not only driving technological change but is also reshaping the very standards by which educational quality is defined. Talent development is shifting from a primary focus on knowledge transmission toward a competency-based approach. Education is moving from knowledge graphs to competency graphs, and toward a new quality standard that integrates knowledge, competencies, and holistic learner development. The third “new” refers to new pathways for future educational transformation, calling for systematic innovation in how education is designed, delivered, and governed in the intelligent era.

**We propose that the development of future Smart Education will undergo four major changes, which we refer to as the four futures.**

**The first future is that Smart Education will experience significant transformations.** We must cultivate future teachers. A journalist once asked me whether the development of artificial intelligence would lead to the extinction of the teaching profession, or whether teaching jobs would become obsolete. My answer is: artificial intelligence will not eliminate teachers, but those teachers who do not possess the ability to apply artificial intelligence may be at risk of being replaced.

**The second future is the creation of future classrooms.** As you just saw, future classrooms will transform the traditional teacher-student relationship into one where teachers are also learners. In such classrooms, teachers, students, and artificial intelligence will become more integrated.

**The third future is the establishment of future schools.** Breaking the constraints of physical campus spaces to form an open, distributed educational ecosystem, which will become the new model for schools of the future. School management will shift towards a more flattened, precise, and collaborative governance structure.

**The fourth future is that Smart Education will create centers for future learning.** We will build a series of ability-driven, ubiquitous intelligent, multimodal responsive future learning centers. Our once-proud libraries will be transformed into these future learning centers.

Ladies and gentlemen, friends, the future will undergo rapid changes at a high speed of iteration. In the era of intelligence, education will continue to play an important role in inheriting history, and smart education will also play a significant guiding role in creating a better future world. In May 2022, an important thematic document titled “*Beyond Limits: New Ways to Reinvent Higher Education*” was released at the Third UNESCO World Conference on Higher Education held in Barcelona, Spain. What we are discussing here today is precisely about transcending traditional educational boundaries and reshaping new pathways for the future of education. Let us work together in a spirit of openness and collaboration, explore together through dialogue and innovation, and move forward together through shared commitment and action, to jointly build a new era of smart education that benefits all.

**H.E. Ms. Stefania Giannini**, Assistant Director-General for Education at UNESCO, attended the conference via video and addressed the audience. She emphasized that the development of AI must be “human-centered,” and the education system requires systematic adjustments to adapt to the paradigm shift. She warned that learners’ over-reliance on AI could lead to the surrender of autonomous decision-making rights, and advocated for adherence to education’s four foundational pillars—learning, thinking, being, and development—to ensure that technological collaboration does not erode judgment, sense of responsibility, or humanistic care.

Ladies and gentlemen, dear colleagues, It is a real pleasure to share this message with you at the fifth edition of the Global Smart Education Conference. First of all, I would like to express my sincere thanks to President YU Jihong for the kind invitation. UNESCO greatly values its long-standing partnership with Beijing Normal University, particularly our collaboration in the areas of girls' education and artificial intelligence in education. Over the years, the Global Smart Education Conference has become a key platform for dialogue on the future of education. The theme you have chosen—human–AI collaboration—captures one of the defining issues of our time. I would like to share a few reflections and, above all, convey a clear message: there can be no human-centred artificial intelligence without capable, empowered humans. This places the development of competencies and skills at the heart of education, across all learning settings—from schools to universities.

A profound shift is currently taking place. Learners are increasingly offloading thinking processes to machines, often treating AI-generated outputs as their own. Students are turning to AI not merely as a resource to support thinking, but, in some cases, as a substitute for it. This raises the risk of diminishing human agency. This leads us to a critical question: what happens to education when thinking itself is delegated to machines?

At UNESCO, we believe that while AI holds significant promise for education, this promise cannot be defined solely by efficiency or technological empowerment. It must be firmly grounded in the core principles of learning, thinking, being, and becoming—the foundations of human agency that must be protected, particularly in the era of generative AI. As current and future generations of learners increasingly participate in designing and shaping their own futures, human–AI collaboration must never mean relieving humans of judgment, care, responsibility, or accountability. This moment calls for a response grounded in an ethical, critical, and human-centred approach. Everything we do must reflect a clear understanding of the essential role of content, competencies, and capacities when technology becomes an integral part of the future of education.

UNESCO's work—together with universities and research centres, including Beijing Normal University—is firmly rooted in this belief. AI competencies for teachers and learners, and the design of AI systems themselves, must remain human-driven rather than technology-led..

**H.E. Prof. Mohamed Ould Amar**, Director General, Arab League Educational, Cultural and Scientific Organization (ALECSO) stated that AI, as an unprecedented new technology, is driving educational transformation, enhancing educational quality, and expanding access to learning opportunities. ALECSO and UNESCO always prioritize the ethical regulation, governance, and application of AI. Through the formulation of initiatives and development plans, they have promoted the responsible use of technology in fields such as education, culture, and scientific research, striving to leverage AI as a pivotal tool for bridging educational disparities and achieving equity in education across Arab nations.

**Miss. Anita Yuen Mei Fung**, BBS, JP; Steward, The Hong Kong Jockey Club stated that smart education is not merely focused on technology itself, but more importantly, on supporting the comprehensive educational development from childhood through adolescence. The Hong Kong Jockey Club has established a three-phase smart education model that sets sail with emotional engagement, builds a foundation with capability enhancement, and empowers education through adaptability, with the goal to support young people in their journey to becoming promising and accomplished individuals. She looked forward to deepening cooperation with global partners to jointly build an open, shared, and inclusive new paradigm for the future of education.

## Achievements Released to Contribute China's Proposal on Smart Education

**Prof. CHEN Li** from the Faculty of Education of Beijing Normal University presented on the topic of AI-Based Innovative Solution for Comprehensive Quality Assessment of Chinese Students. She introduced her team's core achievements with the support of projects from the Ministry of Science and Technology and the Ministry of Education. By utilizing technologies such as multimodal data processing, the team built the SEED Platform, reconstructed evaluation models, and achieved nationally comparable feedback on student development levels. This provides intelligent and precise comprehensive quality evaluation for students in grades 3-11.

**Unique Features**

The system integrates multiple advanced technologies, including expressive performance assessment, intelligent data collection, analysis, and visualization. By leveraging artificial intelligence, it addresses key challenges in current comprehensive student quality assessment, such as inconsistencies in evaluation indicator systems, limited objectivity in assessment outcomes, and weak feedback mechanisms. The system is designed to provide robust technological support for the high-quality development of basic education.


**Key Highlights**

Aligned with the requirements of expressive assessment tools for comprehensive student quality evaluation, the project establishes a complete quality assurance framework. Scientific rigor and objectivity are ensured through expert validation, data-driven characterization studies, empirical research, and user evaluations.

The system enables regions to accurately assess the overall development level of quality education nationwide, as well as the comprehensive quality profiles of students across schools within a given region.

Student development outcomes can be observed, precisely measured, and further disaggregated into specific developmental dimensions. This supports evidence-based planning for individualized student development and provides a reliable basis for evaluating the implementation and effectiveness of quality-oriented education at the regional and school levels.

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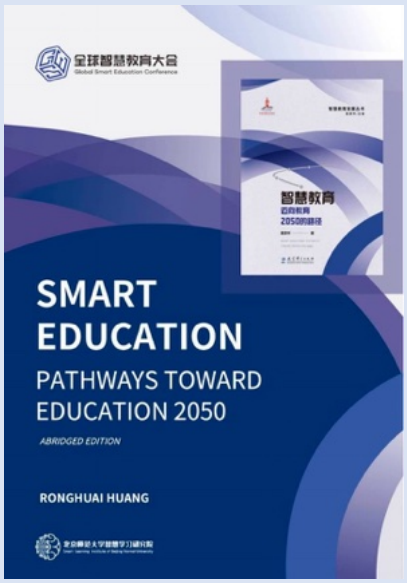
At the opening ceremony, Prof. HUANG Ronghuai, Co-Dean of Smart Learning Institute of Beijing Normal University and UNESCO Chair on Artificial Intelligence in Education, unveiled a groundbreaking achievement—the world's first publication outlining the vision of education for 2050, titled Smart Education: Pathways toward Education 2050.

**Prof. HUANG Ronghuai**, pointed out that the book follows the fundamental logic of "examining the global digital transformation process, identifying the basic forms of smart education, optimizing the pathways for educational digital transformation, and outlining the educational vision of the intelligent era," aiming to explore "how smart education can become the global common goal for education by 2050."

**Envisioning Education 2050: A Future-Oriented Framework for Smart Education**




At GSE2025, Smart Education: Pathways toward Education 2050 was officially released, offering a forward-looking response to UNESCO's Futures of Education initiative and global calls to reimagine learning beyond 2030. Positioned at a critical moment of technological acceleration and systemic change, the book engages in a global dialogue on how smart education can become a shared vision for the future. It argues that smart education is not a technological extension of traditional schooling but a new paradigm that enables large-scale, high-quality, and personalized learning through the synergy of human wisdom, intelligent environments, and transformed educational forms.

**Redefining the Paradigm: Core Connotations and Breakthroughs**

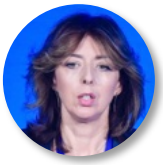
The book outlines three foundational dimensions—"wisdom" rooted in teachers, "capability" supported by adaptive intelligent environments, and "change" embodied in new educational structures. Together, they chart a feasible pathway for achieving the long-standing goal of uniting quality, scale, and personalization in education.

**From China to the World: Building Shared Knowledge for Global Governance**

Drawing on more than a decade of research and international collaboration at Beijing Normal University, the monograph contributes a systematic theoretical and practical framework for smart education with both Chinese characteristics and global relevance. It positions smart education as a cornerstone of China's own modernization plan while offering globally applicable solutions aligned with inclusion, equity, quality, and lifelong learning. The release marks not only a blueprint for Education 2050 but also an invitation for researchers, policymakers, and practitioners worldwide to co-create the future of learning.

## Collaborative Action to Deepen Global Smart Education Practices

The concept of a "social compact" advocated by UNESCO, along with the vision of an inclusive digital future proposed in the Global Digital Compact, guides international cooperation. Through policy dialogue, experience sharing, and joint actions, stakeholders can collectively address the global challenges posed by intelligent technologies in education, such as inclusion, equity, ethics, and safety. This will accelerate the global flow and equitable sharing of quality education resources, ensuring that the benefits of smart education truly reach learners worldwide.



**H.E. Ms. Dubravka Bošnjak,** Minister of Civil Affairs, Bosnia and Herzegovina, emphasized that global education is undergoing profound transformation driven by AI, necessitating human-AI collaboration to address the challenges. Bosnia and Herzegovina will implement multiple initiatives to promote educational equity and development: ensuring equitable access to data and internet resources for all students to bridge the digital divide; supporting teacher training to enhance their technical capabilities and leadership; and establishing globally consistent ethical guidelines to ensure that AI serves as an auxiliary tool in education, among other measures.

**H.E. Mr. Moustapha Mamba Guirassy**, Minister of National Education, Republic of Senegal, emphasized that digital transformation involves technology as well as cultural heritage and social inclusion. Education must be deeply rooted in communities while maintaining global connectivity. He called on the international community to collaborate with the private sector to support inclusive education and ethical AI, emphasizing that data is the key to AI fairness and localization, and that only through content, cooperation, and connectivity can educational transformation be achieved.

**H.E. Prof. Marie-Thérèse Sombo Ayane Safi Mukuna,** Minister of Higher Education of, Democratic Republic of the Congo, pointed out that smart education must benefit all to realize its true value. She stated that global smart education must rely on three fundamental commitments: universal access, ethical responsibility, and active collaboration. She called on all countries to jointly build inclusive digital education centers to ensure that every child has equal access to learning opportunities.

**H.E. Mr. Douglas Munsaka Syakalima,** Minister of Education, Republic of Zambia, stated that digital education has become a fundamental right in the 21st century, but the digital divide still persists, particularly in landlocked countries. He proposed that digital education should focus on three aspects: providing lifelong learning skills and platforms; promoting innovative learning through peer exchanges, creative training, and climate action; and enhancing educational inclusivity to support learners and teachers with disabilities.

**H.E. Prof. Ali Haidar Ahmed,** Minister of Higher Education, Labour and Skills Development, Republic of Maldives, emphasized the disruptive power of digital education in empowering future development and driving transformative changes in the education system. He called for enhancing teachers' digital literacy and skills to address challenges, drawing on outstanding international practices to bridge the digital divide, and integrating new technologies to build an equitable and inclusive educational ecosystem.

**H.E. Prof. Sherif Kishk,** Assistant to the Minister for Smart Governance, Higher Education and Scientific Research, The Arab Republic of Egypt, stated that education is shifting from the traditional model of knowledge impartation to a new paradigm that empowers learners through technology. He pointed out that AI should play a supportive role to ensure equitable access and avoid exacerbating inequalities or stifling human creativity. He called for the international community to strengthen cooperation, share experiences and knowledge, and jointly promote the development of global smart education.

**Mr. GUO Xinli,** Vice President of the China Association of Higher Education, delivered a speech on the development of China's digital education in the AI era. He pointed out that AI presents both a strategic opportunity and a critical variable influencing the development of education in China. AI is powerfully driving the transformation of teaching, education, and research models, and prompting changes in traditional classroom structures while also presenting new demands for teachers. He shared a case study of Shandong University utilizing AI tools to empower education, and called for an acceleration in building a new educational paradigm for the intelligent era to better support students' holistic development and personalized growth.

## Technological Innovation to Create a New Ecosystem for Human-AI Collaborative Education

Technological innovation lies not only in the tools themselves, but more importantly in the profound shift it brings to mindsets: the knowledge view of mass creation and sharing, the learning view of intelligent connectivity, the curriculum view of integration and openness, and the teaching view of human-AI collaboration. To seize the opportunities presented by technological advancement, it is imperative to further integrate technology and education to build a new, open, and inclusive educational ecosystem that responds to the demands of the intelligent era.

**Prof. WANG Xiaoyun**, Tsinghua University, China; Academician of the Chinese Academy of Sciences, emphasized in her keynote speech titled Cryptographic Technologies and Artificial Intelligence Security that AI security has become a global concern, while cryptography serves as the core foundation for addressing its challenges. AI can assist in cryptanalysis, for example, by using machine learning to crack DRS lattice-based signatures and conduct symmetric cryptanalysis. Cryptography also improves AI security by enabling "usable yet invisible" large model inference through privacy-preserving computation technologies such as fully homomorphic encryption and zero-knowledge proofs, providing AI systems with a provably secure paradigm for data privacy protection.

**Dr. Manos Antoninis**, Director, UNESCO Global Education Monitoring (GEM) Report, emphasized in his People-Centred *Technological Development: Insights from the Global Education Monitoring Report that the introduction of educational technology requires the establishment of clear guidelines to ensure its scalability, equity, sustainability, and suitability for local contexts. He particularly warned that digital technologies should serve as a beneficial supplement rather than a replacement for human-AI interaction, and called for always prioritizing student welfare, and focusing on the actual effectiveness of learning outcomes rather than mere digital investment, to achieve genuine educational progress.*

**Mr. LI Yongzhi**, President, China National Academy of Educational Sciences (CNAES), delivered a keynote speech titled AI Redefining Education: New Explorations in the Development of China's Smart Education. He pointed out that the urgent task of educational reform lies in reconstructing the logic of the curriculum, emphasizing that "what to learn" is more important than "how to learn." He shared the China Smart Education Development Report (2024-2025), which is structured around the "3C" philosophy of "Connection, Content, and Cooperation", follows an "3I" approach of "Integration, Intelligence, and Internationalization", and prioritizes application-oriented services, aiming to contribute Chinese wisdom and solutions to global educational transformation.

**Prof. Asha S. Kanwar**, Chair of Governing Board of UNESCO IITE; Chair Professor, Beijing Normal University; Former President Commonwealth of Learning (COL), shared the 2025 GSENet annual report titled " Smart education in the age of AI" She pointed out that Smart Education has transcended mere technology integration and evolved into a learner-centered educational model that integrates social-emotional learning and inclusive development. This model represents a vision and goal for shaping the future of education. She called for strengthening global partnerships through platforms like GSENet; advocating for collaboration among governments, institutions, and society to formulate evidence-based policies that promote sustainable educational transformation; focusing on the 4Cs (Connectivity, Content, Capacity, Collaboration) in regions like Africa, and drawing on the experiences of countries such as China to achieve educational modernization empowered by technology.

**Prof. LIU Dejian**, Founder & Chairman, NetDragon Websoft Inc. presented a keynote speech titled AI-Powered Education: Revolutionizing Learning Engagement, expressing his belief that the future of experiential learning lies in harnessing the full potential of AI and machine systems for on-demand learning. He highlighted that NetDragon Websoft's AI Production Center and EDA Platform can help achieve this goal.

**Dr. Simon Leung,** Vice Chairman mentioned that the EDA platform is an ecosystem that allows participation from teachers, from teachers, students, government officials, and content creators, which is of great value for realizing smart education. He expressed hope that countries would leverage the EDA Platform to build a learning society and jointly promote global education development.

**Mr. Omar Baig**, Chief Information and Technology Officer (CITO), UNESCO, in his report, he proposed the establishment of an integrated UNESCO data center that would harness AI-driven insights to strengthen and optimize UNESCO's initiatives. He noted that such a data center would support large-scale data management and interoperability, accelerate data analysis to enable more timely responses to complex challenges, introduce more innovative and efficient ways of working, and enhance project performance monitoring. He emphasized that this approach would enable UNESCO to formulate more targeted and evidence-based policies across global education, the natural sciences, cultural heritage protection, and other fields. He also called for broad, multi-stakeholder participation from across society to support this endeavor.

**Mr. YUAN Jun**, Vice President of the National Data Development Research Institute, China, in the report Accelerating High-Quality Dataset Development in Education for Advancing Smart Education points out that data has become a new type of production factor in the digital economy era and a core resource for driving the development of artificial intelligence. High-quality datasets are crucial for empowering smart education. It suggests: focusing on practical needs and clarifying construction goals; improving standards and regulations to form a development path; and innovating systems and mechanisms to promote an industrial ecosystem.

**Mr. NIE Xiaolin**, Co-Founder, Board Member and Senior VP, iFLYTEK Co., Ltd., China, delivered a report titled Mutual Empowerment & Collaborative Advancement: Exploring AI-Education Integration Innovations. He emphasized that artificial intelligence and education are forming a closed loop of “bilateral empowerment": on one hand, AI is widely empowering education and teaching; tools developed based on technologies such as the iFLYTEK Spark large model have already been implemented in various scenarios, including college entrance examination grading, classroom interaction, and sports psychology. On the other hand, educational scenarios are providing feedback to AI iterations, with high-quality data and teaching design standards continuously optimizing the capabilities of large models, achieving a symbiotic advancement from "AI empowering education to education empowering AI”.

**Prof. Curtis J. Bonk**, Professor, Indiana University, USA, delivered a keynote speech titled It’s Time to Wake Up: AI-Enhanced Self-Directed Learning is Here! He stated that AI provides new opportunities for self-directed learning and enables students to independently choose their learning content and methods. He pointed out that the global proliferation of open education and online courses is crucial for students to master self-directed learning skills. He shared the PA-SDA model for autonomous learning and related guidelines, advocating the use of artificial intelligence and associated technologies to broaden access to autonomous learning. He also calls for cultivating more autonomous learners who are confident, motivated, and self-aware, and for advancing the practice and expansion of autonomous learning through AI and other technologies.





The Opening Ceremony and Plenary Session on “Human–AI Collaboration: Reshaping the Educational Ecosystem for the Future” were moderated by Prof. CHEN Xing, Vice President of Beijing Normal University, China; Prof. ZHAN Tao, Director of the UNESCO Institute for Information Technologies in Education (UNESCO IITE); Dr. Sarena Shivers, Member of the Board of Directors of the International Society for Technology in Education (ISTE) and CEO/Executive Director of Michigan’s Talent Together; and Datuk Dr. Habibah Abdul Rahim, Director of the Southeast Asian Ministers of Education Organization (SEAMEO) Secretariat.

## Key Takeaways

- The development of artificial intelligence and technology, along with smart education, requires collaborative efforts from various sectors and countries; we need to work together to enable humanity to achieve greater value for long-term development.
- In the face of the contemporary challenge of "What role does education play in the era of intelligence," higher education institutions must earnestly assume their missions. They should explore new paths for Smart Education through open dialogue and joint practice, collectively injecting momentum for transformation.
- AI can enhance assessment capabilities, making it possible to visualize and accurately measure comprehensive quality. It allows for detailed analysis of each aspect of developmental levels in comprehensive quality, facilitating better personalized development planning for students based on assessment results, and evaluating the effectiveness of quality education implementation in regional schools.
- The basic logic of "examining the global digital transformation process, identifying the fundamental forms of smart education, optimizing the path of educational digital transformation, and envisioning the educational landscape of the intelligent era" will guide the discussion on "how Smart Education can become a global common goal for education by 2050."
- The development of artificial intelligence must be "people-centered," and the education system needs systematic adjustments to adapt to the paradigm shift.
- Implement multiple actions to promote equity and development in education: ensure all students have fair access to data and internet resources to eliminate the digital divide; support teacher training to enhance their technical skills and leadership; establish globally consistent ethical guidelines to ensure that AI serves as an educational support tool.
- Global smart education must rely on three fundamental commitments: universal access, ethical responsibility, and active collaboration. We call on all countries to jointly build inclusive digital education centers so that every child has equal learning opportunities.
- Data is key to the fairness and localization of artificial intelligence; only through content, collaboration, and connectivity can educational transformation be achieved.
- Smart education has transcended mere technological integration to evolve into a learner-centered educational model that integrates social-emotional learning and inclusive development, embodying the vision and goals for shaping the future of education.
- AI and cryptography are deeply integrated, establishing a robust security defense for AI through cryptographic technology, while simultaneously leveraging AI to drive innovations in cryptographic algorithms, collectively addressing the security challenges of the intelligent era.
- The EDA platform is an ecosystem where teachers, students, government personnel, and content creators can participate, making significant contributions to the realization of smart education.

# Parallel Session: Quality Higher Education with Smart AI

Amid the global wave of digital transformation, artificial intelligence is profoundly reshaping the landscape of higher education. Around the world, higher education systems are exploring how AI can support teaching innovation, research advancement, and talent development, while enhancing quality, equity, and inclusiveness. AI is increasingly viewed not only as a technological tool, but also as a catalyst for rethinking learning models, academic governance, and institutional capacity-building. At the same time, the rapid integration of AI into higher education raises fundamental questions about educational values, ethical responsibility, and human agency. Ensuring that AI serves learning objectives, respects academic integrity, and supports the holistic development of learners has become a shared concern among policymakers, educators, and researchers. Against this backdrop, quality higher education in the AI era requires a balanced approach—one that combines technological innovation with a strong commitment to ethics, responsibility, and the core mission of education.

This parallel session aims to explore the following topics: pathways for the integration of artificial intelligence and higher education; application scenarios of AI in higher education; cultivation of AI professionals; the intelligent transformation of university governance capabilities; the risks and ethical boundaries of smart education; the mission and strategic transformation of universities in the AI era; and international cooperation in higher education.


**Group Photo of Guests from Parallel Session on Quality Higher Education with Smart AI**

## SPEAKERS

**Dr. Francesc Pedró**, Director, UNESCO International Institute for Higher Education (UNESCO IESALC)

**Mr. LIU Yongqiang**, Director of the Curriculum, Teaching Materials, and Laboratories Division, Department of Higher Education, Ministry of Education, P.R.China

**Mr. Jacob Blasius**, Executive Director of the Global Student Forum and a Member of the Reference Group (Advisory Committee) of the United Nations Office for Youth Affairs

**H.E. Prof. Sherif Kishk**, Assistant to the Minister for Smart Governance, Higher Education and Scientific Research, The Arab Republic of Egypt

**Mr. GU Xuejun**, President of Intelligent Collaboration Field, Huawei Technologies Co., Ltd., China

**Prof. Palidan Tuerxun**, President of Kashi University, China

**Prof. Ayham Boucher**, Director, AI Innovation Lab, Cornell University, USA

**Prof. ZHOU Zuoyu**, Institute of Higher Education; Vice Chair of the University Council, Beijing Normal University; Director of UNESCO International Research and Training Centre for Rural Education (INRULED)

**Prof. Bakri Osman Saeed**, President, African Association of Universities; UNESCO Chair in School Health Education, Sudan

**Prof. WEN Wen**, Vice Dean of the School of Education, Tsinghua University, China

**Prof. WANG Dinghua**, Secretary of the CPC Committee, Beijing Foreign Studies University, China

**H.E. Prof. Kaviraj Sukon**, Minister of Tertiary Education, Science and Research, Mauritius

**Prof. Royson Mabuku Mukwena**, Vice Chancellor, Mulungushi University, Zambia

**Mr. YU Tianshui**, Deputy General Manager, Unicom (Liaoning) Industrial Internet Co., Ltd., China

**Prof. JIANG Kai**, Dean of the Graduate School of Education, Peking University, China

**Mr. JIN Shanguo**, Chairman & CEO, Beijing WenHua Online Education Technology Co., Ltd., China

**Ms. BI Xiaohan**, Deputy Director, UNESCO International Center for Higher Education Innovation (UNESCO-ICHEI), China

**Prof. Robert Gateru**, Vice Chancellor, Riara University, Kenya

**Prof. Nithima Yuengong**, Vice President, Pathumthani University, Thailand

**Prof. Carlos Alberto Pereira de Oliveira**, Director, the Multidisciplinary Institute of Human Development with Technologies, Rio de Janeiro State University, Brazil

**Prof. Eugen-Viorel Nicolae**, Vice-Rector for Quality of Education, University of Pitești, Romania

**Ms. LIU Mengyu,** Ph.D. Candidate at Beijing Normal University, China

**Prof. HONG Chengwen**, Professor of Institute of Higher Education, Beijing Normal University, China

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## MODERATORS

**Prof. ZHOU Haitao**, Director, Institute of Higher Education, Beijing Normal University, China

**Prof. FANG Fang,** Vice Director, the Institute of Higher Education, Beijing Normal University, China

**Dr. Francesc Pedró**, Director, UNESCO International Institute for Higher Education (UNESCO IESALC)

**Ms. Sophia Li**, Senior Regional Director (Greater China), Times Higher Education

**Prof. ZHUANG Tengteng**, Associate Professor of the Institute of Higher Education, Beijing Normal University, China

**Ms. Bosen Lily Liu**, Head of Partnerships and UN Liaison Unit, UNESCO International Institute for Higher Education (UNESCO IESALC)

**Dr. Francesc Pedró**, Director, UNESCO International Institute for Higher Education (UNESCO IESALC), highlighted in his speech that the integration of AI into higher education needs to uphold human wisdom and keep technology in harmony with humanistic values. He noted that UNESCO is collaborating with IBM and other institutions to develop an AI competency framework for teachers and students, promote ethical use, and position AI as a collaborative tool. He called for adaptive policies to strengthen teacher empowerment, improve infrastructure, and promote student involvement in governance. He also stressed the need to address the uneven distribution of resources to ensure that AI helps cultivate future talents with ethical awareness, creativity, and problem-solving abilities, rather than just controlling its usage.

**Mr. LIU Yongqiang**, Director of the Curriculum, Department of Higher Education, Ministry of Education of China, emphasized that AI is significantly reshaping the underlying logic of education. The Chinese government attaches great importance to this change, using educational digitalization as a breakthrough for development. In response to the profound systemic changes in education, he proposed three key considerations: First, reshaping the training philosophy in line with the new stage of development; second, establishing new standards and developing a new smart education system; and third, blazing new trails and creating new forms of education. He expressed his hope for deepening exchanges and expanding cooperation with governments and universities worldwide to jointly envision a new landscape of smart education.

**Mr. Jacob Blasius**, Executive Director of the Global Student Forum and a Member of the Reference Group (Advisory Committee) of the United Nations Office for Youth Affairs, noted that addressing challenges such as AI-induced anxiety and policy gaps hinges on the establishment of a systematic dialogue and cooperation mechanism. He highlighted the importance of involving students as core partners in the decision-making process to jointly explore effective strategies. He further emphasized the urgent need for the education community to re-examine how to define and maintain the core human capabilities that future education must retain against the backdrop of AI's potential to replace certain traditional skills.

In the keynote speech session, **H.E. Prof. Sherif Kishk**, Assistant to the Minister for Smart Governance, Higher Education and Scientific Research, the Arab Republic of Egypt, outlined the four key initiatives that Egypt is vigorously advancing: First, innovating academic programs; second, enhancing faculty capabilities; third, tackling infrastructure challenges; and fourth, establishing a governance framework. He called for global collaboration to integrate resources and share responsibilities to build a resilient education system, whose core mission is "not only to prepare students for the future but also to empower them for the present."

**Mr. GU Xuejun**, President of Intelligent Collaboration Field, Huawei, China, outlined three key transformation pathways to expedite the intelligent development of education: data-driven teaching, learning personalization, and boundaryless scenarios. In terms of technical support, he highlighted that Huawei's three-layer architecture of end-edge-cloud collaborative ICT infrastructure, AI big data platform, and open-source ecosystem has been deployed across 120 countries worldwide. He called for universities and technology manufacturers to jointly build an educational intelligent agent ecosystem characterized by "open hardware and open-source software.

**Prof. Palidan Tuerxun**, President of Kashi University, China, presented the university's initiatives in digital and intelligent empowerment: First, synchronously sharing resources; second, enhancing top-level design to establish an institutional framework; third, consolidating the digital and intelligent infrastructure base to build a new infrastructure system; fourth, fostering innovation with digital and intelligent resources to reshape the teaching ecosystem; and fifth, providing targeted digital empowerment to forge a new type of teaching workforce.

**Prof. Ayham Boucher**, Director of AI Innovation Lab, Cornell University, USA, noted in his speech that AI comes with both benefits and drawbacks, and its true value can only be achieved through scientific application. He mentioned that in teaching, multiple AI products can dynamically adjust content, stimulate students' initiative, and facilitate personalized teaching. However, he warned that over-reliance on AI can lead to groupthink and cause debates around fairness. He stressed the importance of optimizing AI algorithms, improving users' literacy, balancing the pros and cons, and regulating applications to effectively drive social progress.

## Release session：UNESCO AI Competency Framework for Higher Education

In the release session, **Dr. Francesc Pedró** presented the UNESCO AI Competency Framework for Higher Education. He advocated for a proactive approach to promote the application of technology and proposed four core development directions: first, enhancing the universal right to higher education; second, strengthening responsiveness, inclusiveness, relevance, and efficiency of institutions and higher education systems; third, fostering innovation in higher education; and fourth, reimagining internationalization. The UNESCO AI Competency Framework for Higher Education is grounded in real-world practices from across the globe and fully considers the development differences of various countries and regions, offering targeted problem analyses and suggestions. This framework is not a standard but a flexible roadmap that can be adapted to local conditions.


**For further details on this framework, please visit:**
https://www.iesalc.unesco.org/en/articles/unesco-iesalc-co-host-quality-higher-education-smart-ai-forum-gse-2025

## Panel Discussion

**Prof. ZHOU Zuoyu,** from the Institute of Higher Education, Beijing Normal University, who is also Director of UNESCO International Research and Training Centre for Rural Education (INRULED); **Prof. Bakri Osman Saeed,** President of African Association of Universities (AAU) and UNESCO Chair in School Health Education, Sudan; **Prof. WEN Wen,** Vice Dean of the School of Education, Tsinghua University, China; and **Mr. Jacob Blasius** discussed the challenges and opportunities of situation-specific AI competency frameworks in higher education and called on relevant stakeholders in higher education to adopt this framework to jointly build a safe, open, and inclusive AI education ecosystem.


Photo of Panel Session

Q1: Specific challenges as well as opportunities for artificial intelligence in literacy skills competencies. Prof. ZHOU Zuoyu, based on your interdisciplinary experience and expertise in educational assessment, what help can artificial intelligence provide in the area of literacy skills?

**Prof. ZHOU Zuoyu**: Artificial intelligence can help improve higher education literacy skills from six aspects: awareness, creativity, application, adaptation, evaluation, and avoidance.

Q2: We ask Prof. Bakri Osman Saeed, you previously mentioned that you have a strong scientific background. How do you view the definition of artificial intelligence literacy? Not just in the context of Sudan, but what kind of impact does it have on the social environment it creates?

**Prof. Bakri Osman Saeed**: Artificial intelligence infrastructure development accelerates economic growth and promotes sustainable development, but may magnify the gaps that exist between urban and rural areas, hence the need for extensive research and a clear action plan for the use of artificial intelligence for the development of societies, adapted to the country's context and circumstances and based on increased international cooperation.

Q3: From the students' perspective, what opportunities and challenges do they face regarding the integration of artificial intelligence in higher education?

**Mr. Jacob Blasius**: Students should regard AI as a core component and must master the skills to use it. However, when students use AI, they often find themselves in a confusing dilemma: using AI is seen as cheating or considered a wrong approach by teachers.

Q3: **Prof. WEN Wen**, as an expert in the field of digital transformation in higher education, particularly through artificial intelligence, what challenges have you observed? Please elaborate on the challenges that artificial intelligence poses to higher education.

**Prof. WEN Wen**: According to my research and observations, I have identified three challenges that artificial intelligence poses to higher education: the illusion of capability, the decline in cognitive abilities, and the misalignment of university missions.

Q4: When and how do students in higher education acquire competencies in artificial intelligence?

**Mr. Jacob Blasius**: Users need to be very clear about which step they want to be guided to and must have a clear understanding of the sources of information. Therefore, it depends on the level of engagement and how it evolves into youth participation. Additionally, it is important to maintain a balance between positive feedback and a questioning attitude.

In the high-level dialogue session, **Prof. WANG Dinghua,** Secretary of the CPC Committee, Beijing Foreign Studies; **H.E. Prof. Kaviraj Sukon,** Minister of Tertiary Education, Science and Research, Mauritius; **Prof. Royson Mabuku Mukwena,** Vice Chancellor of Mulungushi University, Zambia, and other guests explored the role of AI in promoting teaching and learning, advancing research and development, and enhancing governance and institutional management based on regional development practices, and offered relevant suggestions.


Photo of High-Level Dialogue Session

Q1： How is artificial intelligence fundamentally changing university education?

**Prof. Kaviraj Sukon**: In university education, artificial intelligence can be used to provide personalized support and assessment for learners in different scenarios. However, a suitable management system is needed; such a system should function effectively according to our expectations for learning.

**Prof. WANG Dinghua**: Artificial intelligence assists university students in continuous learning and changes the format of learning and teaching. Higher education professionals need to shift their mindset, and universities should establish industry collaborations to create an open and inclusive educational environment. This will allow young people to benefit more.

**Prof. Royson Mabuku Mukwena**: Artificial intelligence is changing the way teachers instruct, allowing them to better cultivate students and helping students enhance their innovative abilities. University decision-makers should make strategic deployments, focusing more on student issues and supporting student learning.

Q2: What are some best practices that can be shared, whether from a national strategy perspective or an organizational structure perspective?

**Prof. Kaviraj Sukon**: The University of Mauritius has a research center that uses artificial intelligence tools to accelerate the development process of new molecules. This means that we do not need to conduct animal experiments; we

can start with powerful AI tools to assist us in testing, then analyze the effects of the molecules produced, and ultimately conduct comparative research to carry out clinical studies on humans.

**Prof. WANG Dinghua**: Beijing Foreign Studies University started conducting some pilot projects in 2018, aiming to involve the entire school in AI applications integrated into teaching, research, management, and students' writing processes. We established a Human Language AI Laboratory to study the development trends of AI and the ethical issues arising during its development. Our findings indicate that it is crucial to evaluate and validate the capabilities of internet infrastructure.

**Prof. Royson Mabuku Mukwena**: In Zambia, the establishment of the National AI Education Summit serves as a strategic foundation for our country in the field of AI. At the same time, we conducted an online education seminar. During the seminar, we engaged in in-depth discussions with Zambian educators and collaboratively explored the use of AI tools to empower curriculum planning and assessment. This has strengthened the network we have established with 15 universities. We also provided training for adults.

In the invited speech session, **Mr. YU Tianshui**, CTO of China Unicom's Smart Education Corps, China, introduced the "Mingxi Smart Education" large language model. Developed by leveraging China Unicom's integrated network capabilities and built upon the UniT2IXL LLM and tool chain as its foundation, this model focuses on addressing the practical needs of higher education institutions. It establishes a matrix of scenario-based applications designed to help universities enhance teaching quality, management efficiency, and the overall educational experience in a comprehensive manner. Following the presentation, attendees participated in the launch ceremony for the "AI Empowering Education: Large Model Co-Creation Initiative", which aims to foster collaborative development and cooperation in applying AI within the field of higher education.


Photo of the Launch Ceremony

**Prof. JIANG Kai**, Dean of the Graduate School of Education, Peking University, China, presented an empirical study on the AI competency of undergraduates in a top Chinese university in the age of smart education. The study findings indicate that, overall, most students have acquired basic AI knowledge and achieved the best performance in the evaluation dimension, yet they scored relatively lower in knowledge application. In terms of groups, there is a closely intertwined and mutually reinforcing relationship between students' academic performance and their AI competency.

**Mr. JIN Shanguo**, Chairman & CEO of Beijing WenHua Online Education Technology Co., Ltd., China, noted that to address the fiscal sustainability challenges faced by countries along the Belt and Road, WenHua Online hascreatively used the pioneering innovation theory and the PPP model. By combining new technologies, new markets, and new mechanisms, it explores a sustainable pathdriven by policy and market forces, aiming to build a new digital education infrastructure integrating "smart space, smart platform, smart courses, and operation services."



In the invited panel discussion session, **Ms. BI Xiaohan,** Deputy Director of UNESCO International Center for Higher Education Innovation (UNESCO-ICHEI), China; **Prof. Robert Gateru,** Vice Chancellor of Riara University, Kenya; **Prof. Nithima Yuengong,** Vice President of Pathumthani University, Thailand; **Prof. Carlos Alberto Pereira de Oliveira,** Director of the Multidisciplinary Institute of Human Development with Technologies, Rio de Janeiro State University, Brazil; **Prof. Eugen-Viorel Nicolae,** Vice-Rector for Quality of Education, University of Pitești, Romania; and **Ms. LIU Mengyu,** Ph.D. Candidate at Beijing Normal University, China, jointly explored the benefits of integrating AI into higher education, the risks and countermeasures for institutional-level AI integration in diverse contexts, and ethical considerations of AI, and put forward relevant suggestions.


Photo of Invited Panel Discussion Session

Q1: The first question is for **Ms. LIU Mengyu**. As a doctoral student, how does artificial intelligence assist you in your daily life and work? What impact does it have on your research and daily tasks, especially in the process of teaching and learning?

**Ms. LIU Mengyu**: As a student struggling during the paper submission period, AI tools havegradually become a part of my daily life. Useing AI for various small tasks, such as brainstorming ideas, simplifying the complexity of finding academic literature, translating academic abstracts, and understanding difficult theories. Artificial intelligence helps me quickly read policies from different countries and languages, allowing me to complete translations efficientlyfor better understanding. Throughout this process, we can manage everything by myself without the need for a team.

Q2: The next question is for **Prof. Carlos Alberto Pereira de Oliveira**, what is AI like from your perspective?

**Prof. Carlos Alberto Pereira de Oliveira**: In higher education institutions across the Global South, they are still quite far from fully utilizing AI. Some institutions lack clear policies. Now that we have UNESCO's framework for the application of AI in higher education systems, our next step is to enable professors, researchers, students, and staff to become qualified to use AI. From the perspective of higher education, it's not about what AI can do, but rather who benefits from it. Without specific infrastructure to support it, benefits cannot be reaped, which exacerbates the digital divide. There is also a need for algorithmic transparency and data protection. AI must help people better discover and utilize their potential, assist them in using critical thinking to address issues of social inequality and ethics, and achieve inclusive growth.

Q3: For **Prof. Nithima Yuengong**, as a representative of the senior management team at the institution, could you please share with us the obstacles you have encountered in promoting the integration of AI in higher education, and how you have addressed these challenges?

**Prof. Nithima Yuengong**: For us, AI is not just about what we do or just about training; it is more of a key component of our long-term strategy. The biggest challenge we face, due to the lack of public funding and government support for our private university, is resource scarcity, which means we must be very budget conscious. Our core philosophy is learning by doing. At our university, students not only study AI but also use it in their academic lives to help them overcome language barriers. Therefore, we provide them with these avenues to create a more inclusive learning environment. In the future, we are preparing to launch two new programs: one doctoral program and one master's program. We are also training the next generation of educators and policymakers. Our university firmly believes that with the support of artificial intelligence, educators will not be replaced by it but will work in a collaborative manner.

Q4: For **Prof. Robert Gateru**, what are the obstacles faced by Riara University in Kenya in promoting the integration of AI in higher education, and how do you address these obstacles?

**Prof. Robert Gateru**: The biggest challenge we face is the change in employees' mindsets. In the African context, we lack large language models and the contribution of African data. Therefore, we are inviting partners in this area. Our university has created its own large language model and has begun collaborating with many institutions to design various courses. At the same time, we also face the challenge of insufficient investment in public schools. To address this, we are developing our own policies and further enhancing the AI literacy of teachers and other personnel through a data intelligence science program.

Q5: The development of artificial intelligence surely raises ethical issues that we need to discuss. In terms of ethical considerations, how will the future development of artificial intelligence progress?

**Ms. BI Xiaohan**: The future development of artificial intelligence in higher education should be advanced from three aspects: the first is a human-centered mindset. The second aspect is fairness. The last point is governance.

**Prof. Eugen-Viorel Nicolae**: The ethics of artificial intelligence is a crucial aspect of its development in higher education in the future. In Romania, we have established a systematic code for teachers and students, comprising five important principles: respecting autonomy, transparency, privacy, evaluating the role of humanity, and assessing risks and benefits.

Q6: In higher education, use AI in a fair manner. Everyone, please take a minute to give us a suggestion.

**Ms. LIU Mengyu**: From a student's perspective, it is essential to establish a global network of student AI labs to help students share their thoughts, experiences, and tips on using prompts, as well as how to mitigate the risks associated with AI usage.

**Prof. Carlos Alberto Pereira de Oliveira**: The goal is to establish a global smart education network, particularly focusing on building partnerships for the application of artificial intelligence in education in "Global South" countries.

**Prof. Nithima Yuengong**: Use AI as an aid rather than a replacement for humans. We should utilize AI to support teachers, empower students, and enable managers to work more efficiently, rather than allowing AI to think on their behalf.

**Prof. Robert Gateru**: Establish a global network and create a community for sharing practices worldwide.

**Ms. BI Xiaohan**: For all higher education institutions, what I want to say is that joining the IOE will provide better access to updated teacher training resources and related training programs.

**Prof. Eugen-Viorel Nicolae**: Artificial intelligence is like a child. If we are to coexist with AI in the future, we must learn how to educate this "child." In fifty or a hundred years, it might grow up to be like a human.

## Closing Summary

In the closing summary, **Dr. Francesc Pedró** highlighted that this forum pooled perspectives of 25 experts from six continents, yielding three insights: First, actions must be both expeditious and judicious; second, inclusivity is not a distant vision but an immediate necessity; and third, collaboration is imperative, with the ecosystem mattering more than individuals.

**Prof. HONG Chengwen** from the Institute of Higher Education, Beijing Normal University, China, called on everyone to continue exploring new pathways for AI education, both in depth and breadth, based on the consensus reached by Francesc Pedró that there is still a long way to go for smart education.

This parallel session was jointly moderated by Prof. ZHOU Haitao, Director of the Institute of Higher Education; Prof. FANG Fang, Vice Director of the Institute of Higher Education,; Prof. ZHUANG Tengteng, Associate Professor of the Institute of Higher Education of Beijing Normal University, China; Dr. Francesc Pedró, Ms. Sophia Li, Senior Regional Director (Greater China) of Times Higher Education; and Ms. Bosen Lily Liu, Head of Partnerships and UN Liaison Unit, UNESCO IESALC.

*The Parallel Session: Quality Higher Education with Smart AI was jointly moderated by Prof. ZHOU Haitao, Prof. FANG Fang, Ms. Sophia Li, Prof. ZHUANG Tengteng, and Ms. Bosen Lily Liu.
This Parallel Session was organized by the UNESCO International Institute for Higher Education (UNESCO IESALC), Binglin Education Fund of BNU, Institute of Higher Education of Beijing Normal University, Smart Learning Institute of BNU, and Huawei Technologies Co., Ltd.


## Key Takeaways

- Develop adaptive policies to empower teachers, strengthen infrastructure, and involve students in governance, while addressing issues of resource inequality. Ensure that AI helps cultivate future talent with ethical awareness, creativity, and problem-solving skills, rather than merely controlling its use.
- Hope for deepening exchanges and expanding cooperation with governments and universities worldwide to jointly envision a new landscape of smart education and contribute wisdom and strength to building a global smart education community.
- To address the challenges posed by anxiety related to artificial intelligence and the lag in policy development, it is essential to establish systematic dialogue and cooperation mechanisms. It is important to include students as core partners in the decision-making process to collaboratively explore effective strategies.
- Three transformational paths to accelerate the digital and intelligent development of education: data-driven teaching, personalized learning, and boundaryless learning environments.
- The core mission of globally coordinated resource integration and shared responsibility in building a resilient education system is "not only to prepare students for the future but also to empower students in the present."
- Artificial Intelligence has both pros and cons, the value of scientific use is revealed.
- The *UNESCO AI Competency Framework for Higher Education* is not a standard but a flexible roadmap that can be adapted to local conditions.
- The goal is to establish a global smart education network, particularly focusing on building partnerships for the application of artificial intelligence in education in "Global South" countries.
- Use AI as an aid rather than a replacement for humans. We should utilize AI to support teachers, empower students, and enable managers to work more efficiently, rather than allowing AI to think on their behalf.
- Artificial intelligence is like a child. If we are to coexist with AI in the future, we must learn how to educate this "child." In fifty or a hundred years, it might grow up to be like a human.

# Parallel Session: Science of Learning and Human-AI Collaboration

Human-AI collaboration has become a significant definition in digital transformation, prompting people to deeply contemplate how to fully leverage these technologies to not only promote learning but also achieve a profound understanding of the learning process and ways to enhance it. To achieve this goal, continuous cooperation and dialogue among researchers, policymakers, and domestic levels are essential. Learning science serves as the cornerstone for understanding how humans learn. Research Science of Learning requires not only a deepening of our understanding of individual cognitive processes and social collaboration mechanisms but also an active embrace of the new tools and methods brought by emerging technologies, providing stronger and more precise theoretical support for educational practices. The new paradigm of human-machine collaborative teaching is a forward-looking exploration of future educational models guided by learning science. It aims to explore how intelligent machines can become super assistants to teachers, unleashing their tremendous potential in areas such as data insights, personalized tutoring, precise resource recommendations, and process automation. Additionally, it seeks to enable teachers to focus more on their irreplaceable core values, such as emotional care, value guidance, creativity stimulation, and the cultivation of advanced thinking skills like solving complex problems. The goal is to construct a triad teaching structure involving teachers, machines, and students, fostering a new classroom ecology where humans and machines complement each other harmoniously.

This session will explore: Optimizing instructional design based on cognitive psychology and learning mechanisms; Constructing lifelong learning systems grounded in learning sciences; Pathways for teacher professional development and enhancing human-AI collaboration capabilities; Building fair, interpretable, and learner-autonomy-respecting AI-assisted teaching frameworks; Large-scale AI models supporting human-AI collaborative teaching.


**Photo of Parallel Session: Science of Learning and Human-AI Collaboration**

## SPEAKERS

**Prof. Mohamed Jemni,** Director of ICT Department, ALECSO

**Prof. MA Ning**, Dean of the School of Educational Technology, Faculty of Education, Beijing Normal University, China

**Mr. Gwang Chol Chang**, Chief of the Education Policy Section, UNESCO Policy and Lifelong Learning Systems Division

**Prof. Fred Paas**, Editor-in-Chief, Educational Psychology Review

**Prof. LIU Sanya**, Vice President, Central China Normal University

**H.H. Prince: Fahad Faisal T. Jalowi Al Saud**, Kingdom of Saudi Arabia

**Prof. Wayne Holmes**, UNESCO Chair in AI Ethics & Governance; University College London (UCL), UK

**Prof. DONG Yuqi**, Professor, Shanghai Normal University; Member of the Teaching Sub-Committee for Educational Technology under the Ministry of Education

**Prof. Nancy Law**, Founding Director of the Centre for Information Technology in Education (CITE), Professor, University of Hong Kong

**Prof. John Shawe-Taylor,** Director of the UNESCO International Research Centre on Artificial Intelligence; Professor, University College London (UCL)

**Prof. Diana Laurillard**, Emeritus Professor, University College London, UK

**Ms. Sonia Guerriero**, Education Specialist, UNESCO Policy and Lifelong Learning Systems Division

**Prof. Roberto Lent**, Emeritus Professor, Federal University of Rio de Janeiro, Brazil

**Prof. Ahmed Tlili**, Associate Professor, Beijing Normal University; Deputy Editor-in-Chief of Smart Learning Environments

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## MODERATOR

**Prof. Ahmed Tlili**, Associate Professor, Beijing Normal University; Deputy Editor-in-Chief of Smart Learning Environments

## Opening Remarks Session: Discussions on the Future of Education by Experts from Home and Abroad

**Prof. Mohamed Jemni**, Director of ICT Department, Arab League Educational, Cultural and Scientific Organization (ALECSO), underscored in his speech the vital importance of gaining a deep understanding of the learning process and improving learning outcomes. He highlighted the need to strengthen the dialogue and cooperation among experts, scholars, policymakers, and relevant institutions. He also noted that human-AI collaboration has emerged as a key characteristic of the digital age, and Arab countries are advancing the integration of AI and education through various projects and initiatives to develop a more inclusive future education system.

**Prof. MA Ning**, Dean of the School of Educational Technology, Faculty of Education, Beijing Normal University, China, pointed out that AI is profoundly reshaping education. She stressed the need to combine the science of learning and technology to explore a new paradigm of human-AI collaboration. She also underscored that AI should act as a “super assistant” to teachers, unleashing its potential in areas such as personalized tutoring, thereby enabling teachers to focus on their irreplaceable roles in providing emotional support and fostering creativity.

## Keynote Speech Session: Research on the Science of Learning with AI Empowerment

**Mr. Gwang Chol Chang**, Chief of Section of Education Policy, UNESCO Division for Policies and Lifelong Learning Systems, mentioned in his keynote speech that the world is still facing systemic educational crises, including 272 million out-of-school children. He stressed that technology should serve educational equity, and policy-making should be based on empirical data. He also noted that UNESCO's "Happy Schools" initiative advocates the integration of technology in multiple dimensions (including who, how, and where) to address educational inequality.

**Prof. Fred Paas**, Professor of Erasmus University Rotterdam, the Netherlands, and Editor-in-Chief of Educational Psychology Review, emphasized in his keynote speech that the design of smart education should be grounded in an understanding of the limitations of human cognition. Drawing on cognitive load theory, he discussed several effects and highlighted strategies such as "multimodal effects" (visual, auditory, etc.) and "embodied effects" (physical participation) to optimize cognitive resource allocation, reduce irrelevant information load, and enhance learning efficiency.

**Prof. LIU Sanya**, Vice President of Central China Normal University, proposed in his speech that AI-driven educational research should target the fundamental proposition of "understanding learning." He put forward three perspectives for approaching this issue: individual level (AI analysis of large-scale real-world learning data), social level (Agent simulation and interaction), and system level (the construction of a general intelligent tutoring architecture). This approach aims to break through the limitations of traditional small-sample research.




**H.H. Prince Fahad Faisal T. Jalowi Al Saud,** Kingdom of Saudi Arabia, noted that AI has introduced innovative approaches to the sharing of knowledge and wisdom, and human-AI collaboration can help us better disseminate culture. He shared Saudi Arabia's exploration in smart classrooms and AI education tools, and emphasized the importance of international cooperation in driving educational innovation.

**Prof. Wayne Holmes**, UNESCO Chair in AI Ethics & Governance and Professor of UCL, UK, critically examined the impact of AI on education. He emphasized the need to remain vigilant about its potential downsides, such as energy consumption and privacy risks. He cautioned that using AI tools without assessing their effectiveness is tantamount to conducting "experiments on children." Therefore, he advocated for stronger regulation and ethical research to prevent technology from blindly replacing the indispensable role of teachers.

**Prof. DONG Yuqi** from Shanghai Normal University, proposed that achieving "personalized learning at scale" is the key to building a leading education system. He presented empirical research to validate the feasibility of AI learning companions in supporting personalized and collaborative learning, and underscored the necessity for deeper research into the underlying aspects of cognition, emotions, and thinking. Meanwhile, he called for collaborative efforts among government, industry, universities, and research institutions to address bottlenecks in teacher training and system development.


## Panel Discussion Session: Promoting Human-AI Collaboration Through Interdisciplinary Collaboration

**Prof. Nancy Law**, Founding Director of the Centre for Information Technology in Education (CITE), Professor, University of Hong Kong; **Prof. John Shawe-Taylor**, Director of the UNESCO International Research Centre on Artificial Intelligence; Professor, University College London (UCL); **Prof. Diana Laurillard**, Emeritus Professor, University College London, UK; **Ms. Sonia Guerriero**, Education Specialist, UNESCO Policy and Lifelong Learning Systems Division (Online); **Prof. Roberto Lent**, Emeritus Professor, Federal University of Rio de Janeiro, Brazil. They engaged in a discussion around the science of learning and educational practices.


Photo of Panel Discussion

Q1: How does human-computer interaction achieve collaboration? In the fields of educational science and learning science, which one comes first? Which area of research should be prioritized to empower the other?

**Prof. John Shawe-Taylor**: Humans and machines are fundamentally different. What makes a person human is not just their intelligence. It is not the case that only AI that empowers education is the kind of AI we need to develop. There are still many new ways to process, develop, and utilize information, and even some things that have not yet been developed could enhance education even more. Therefore, we should think more about the most fundamental issues, and then consider what kind of artificial intelligence education actually needs. From this perspective, we can develop AI that is suitable for education.

**Prof. Nancy Law**: The potential of artificial intelligence and technology is significant, and it can definitely benefit education; however, the current conditions are not yet mature. The voices of learning scientists are very important, and they should also listen to the perspectives of teachers and school administrators. Establishing a two-way communication mechanism is essential to understand what kind of technology is needed and what type of technical support is required.

Q2: From the perspective of regional practitioners, are there any recommendations for providing communities of practice related to the learning sciences? What should be done, what should be noted, and what lessons can be learned?

**Prof. Roberto Lent**: An education science network has been established in Brazil, focusing on research related to learning in science, with a clear distinction from teaching. It serves as a bridge connecting practice and science, promoting the enhancement of scientific literacy in various communities across Brazil. In the future, we will expand related activities to reach more teachers.

**Ms. Sonia Guerriero**: The UNESCO Policy and Lifelong Learning Systems Division has established the Alliance on Science of Learning , which may not be able to solve all problems, but we bring together resources and knowledge as a collaborative approach. We gather experts from different fields in the hope of bridging the gap between our academic expertise and policymakers, and to better engage those outside the realm of academic research.

Q3: In the future, as more countries participate in the field of learning science, there is a need for more communities and nations to get involved. What is your perspective on the issue of international collaboration?

**Ms. Sonia Guerriero**: The science of learning for achieving human-AI collaboration aims to empower education through both science and learning. Education ultimately influences people, and it involves many dynamic factors, including culture, language, and individuals. Moreover, regional differences bring about many disparities: the acceptance and adoption of technology vary from place to place, as do cognitive approaches. UNESCO supports international cooperation, encouraging collective efforts to enhance global educational standards, not just in developed countries. We also need to support the education in developing countries and underdeveloped regions, as the challenges faced by students and teachers in these areas differ from those in other countries. By bringing everyone together for thorough discussions and evaluations, we can explore more solutions and help them find the best practices to achieve sustainable development goals.

**Prof. Roberto Lent**: The diverse exchange of information is certainly beneficial for the development of educational sciences. On the other hand, it can also reveal many similarities, such as vulnerabilities. Additionally, through international cooperation, solutions to these issues can be found collaboratively.

**Prof. John Shawe-Taylor**: If a technology is limited to applicability in a specific country, it cannot be called learning science. We need to understand different contexts in order to find true learning science. The learning science we develop needs to be comprehensive and inclusive. We must deepen our understanding of cultural differences, as this understanding enables us to communicate and exchange ideas in a more constructive way. Ultimately, we are discussing how to better understand cultural differences and the relationships and connections between different cultures. This forms the foundation for creating a more cooperative world.

**Prof. Diana Laurillard**: We developed a model for a large-scale online collaboration platform that primarily leverages MOOCs (Massive Open Online Courses). It gathers professionals together to quickly showcase their research through videos and other means. People can visit this platform to ask questions and gain

inspiration from various participants. Teachers in one country can learn about what teachers in other countries are doing, often facing similar challenges; others may find creative solutions that facilitate mutual support among teachers. We hope to empower these individuals with technology, enabling them to bring about significant changes.

**Prof. Nancy Law**: There is only one Earth, and all people must face the common fate of humanity. Therefore, to some extent, everyone is interdependent. Within every country and every culture, there is still a great deal of cultural diversity. There are many viewpoints or situations that may not be immediately obvious, and some insights can further enhance our understanding of learning, but this is also the essence of learning. To achieve shared learning and co-create the future, it is essential to establish an international or regional collaborative network or organization.

## Release Session: Co-building of a Regional Community of Practice on Science of Learning in Asia-Pacific

At the conclusion of the forum, **Prof. Ahmed Tlili** released an initiative titled: Regional Community of Practice on Science of Learning in Asia-Pacific. It focuses on developing localized solutions, facilitating the integration of global experience with regional needs, and providing scientific evidence for policymakers. The attendees unanimously agreed that future education requires interdisciplinary and cross-cultural collaboration, and that a new, smarter, and more human-centered teaching paradigm can be achieved through human-AI collaboration.

The CoP will focus on four core objectives:

Addressing Region and Global Specific Challenges

Exchange of Findings

Policy Influence

Capacity Building


*This Parallel Session: Science of Learning and Human-AI Collaboration was jointly organized by the UNESCO Global Alliance on the Science of Learning for Education, UNESCO Division for Policies and Lifelong Learning Systems, UNESCO Institute for Information Technologies in Education (UNESCO IITE), UNESCO Chair on Artificial Intelligence in Education, Arab League Educational, Cultural and Scientific Organization (ALECSO), and School of Educational Technology, Faculty of Education, Beijing Normal University.

## Key Takeaways

- The UNESCO's "Joyful Learning" program advocates for a multidimensional integration of technology (people, processes, locations) to address educational inequality.
- Smart education design should start from the limitations of human cognition.
- Understanding learning from three perspectives: the individual level (AI analyzes large-scale real learning data), the social level (Agent simulation interactions), and the systemic level (building a general intelligent guidance framework) can break through the limitations of traditional small sample research.
- Human-machine collaboration can help us better disseminate culture.
- We must be aware of the dark side of AI applications—issues such as energy consumption and privacy risks. It is believed that AI tools lacking effective evaluation are essentially "experiments on children," necessitating increased regulation and ethical research to avoid the blind replacement of teachers' core roles by technology.
- "Mass personalized education" is the core path to becoming an education powerhouse.
- Technology design must be rooted in learning science.
- Learning science is crucial; it is essential to study fundamental educational questions such as how people learn knowledge and how they produce knowledge, which then informs what kind of artificial intelligence education needs.
- Teachers need to quickly master AI teaching skills through collaboration.
- Differences in interactive mechanisms can have varying effects on different types of learners.
- We should leverage the role of the global learning sciences alliance to encourage collaboration among various stakeholders, strengthening global cooperation while retaining academic professionalism to convert scientific research into actionable educational policies and practices.
- Future education requires interdisciplinary and cross-cultural collaboration to achieve a new teaching paradigm that is more intelligent and more humanized through human-machine cooperation.

# Parallel Session: Leadership and Digital Transformation

This session aims to explore the digital transformation of education in the intelligent era, digital governance in regional and school education, digital leadership in education, educational leadership practices during digital transformation, policies for digital transformation in education, intelligent monitoring of educational quality, ethics of AI in education, modern educational governance systems driven by new technologies, along with sustainable development mechanisms for smart education, etc.


**Photo of Parallel Session: Leadership and Digital Transformation**

**SPEAKERS**

**Mr. QIN Changwei**, Secretary-General, Secretariat of National Commission of the People's Republic of China for UNESCO

**Mr. Shahbaz Khan**, Director, UNESCO Regional Office for East Asia

**Dr. Manos Antoninis**, Director, UNESCO Global Education Monitoring (GEM) Report

**Dr. Eun Young Kim**, Director, Korean Educational Development Institute (KEDI), Korea

**Mr. Yuta Yoneda**, Manager, KOEI Research & Consulting Inc., Japan

**Prof. ZHAO Jianhua**, Professor, Southern University of Science and Technology (SUSTech), China

**Dr. Obijiofor Aginam**, Director, UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP)

**Prof. WU Fati,** Dean, School of Educational Technology, Faculty of Education, Beijing Normal University, China

**Prof. GU Xiaoqing**, Director, Department of Education Information Technology, East China Normal University, China

**Mr. Ahmed Ansary**, Founder President and the Group Managing Director, Asia e University

**Mr. YANG Xiaohui**, Director of the Education Commission of Fengtai District, Beijing, China

**Mr. Thierry Verdel**, Rector, Universite Senghor, Egypt

**Mr. LI Xiaohai**, Director of the Education Commission of Kaizhou District, Chongqing, China

**Prof. Don Klinger**, Deputy Vice-Chancellor, Education, Murdoch University, Australia

**Dr. Sylvie Mucyo**, Vice-Chancellor, Rwanda Polytechnic, Rwanda

**Ms. ZHANG Huimin**, Director of Shenzhen Education Information Technology Center, China

**Ms. PENG Xuezhuang**, Deputy Director of the Digital Education Department of the Affairs Center of Guangdong Provincial Department of Education (Guangdong Provincial Center for Educational Technology), China

**Ms. WAN Shulan**, Principal of Yuhua Experimental Primary School Group in Yuhua District, Changsha, China

**Prof. Romeela Mohee**, Commissioner, Higher Education Commission, Mauritius

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## MODERATORS

**Prof. ZHANG Jingjing**, Vice Dean, the Faculty of Education, Beijing Normal University, China

**Dr. Manos Antoninis**, Director, UNESCO Global Education Monitoring (GEM) Report

**Dr. Shitanshu Mishra**, Chief of Digital Learning, AI and IT, National Information Technology Officer, UNESCO MGIEP

**Mr. QIN Changwei**, Secretary-General of the Secretariat of National Commission of the People's Republic of China for UNESCO, in opening address emphasized that the digital transformation of education is a critical breakthrough for achieving the 2030 goals, requiring enhanced leadership to coordinate multi-stakeholder efforts and avoid the digital divide. He noted that China has built the world's largest smart education platform, promoted the integrated application of AI, and prioritized capacity building among administrators. He also called for strengthened international cooperation to jointly create an open and inclusive new ecosystem for digital education.

**Mr. Shahbaz Khan**, Director of UNESCO Regional Office for East Asia, pointed out that emerging technologies such as AI are profoundly transforming education, bringing opportunities while exacerbating the digital divide and posing ethical challenges. He emphasized the need to strengthen leadership and policy guidance to ensure the inclusiveness and safety of technology integration in education. Furthermore, he called for investment in the digitalization of public education, promotion of cross-sector collaboration, and a human-centered approach to foster sustainable development and ensure that no one is left behind.

## Release Session: Lead for Technology: A Regional Edition of the 2024/5 GEM Report on Education Leadership and Digital Transformation in East Asia

During the outcome release session, **Dr. Manos Antoninis**, Director of the UNESCO Global Education Monitoring Report Team, released the Lead for Technology: A Regional Edition of the 2024/5 GEM Report on Education Leadership and Digital Transformation in East Asia. The report focuses on the achievements of educational informatization transformation in China, Japan, and South Korea, offering actionable recommendations to provide reference and inspiration for global practices in the digital transformation of education.

This report is titled " *Lead for Technology: A Regional Edition of the 2024/5 GEM Report on Education Leadership and Digital Transformation in East Asia*" and is jointly published by the Global Education Monitoring Report team of UNESCO, Beijing Normal University, Sophia University in Japan, and the Korea Educational Development Institute.

The report points out that to effectively advance such educational reforms, it is essential to empower the leadership of schools and the education system with sufficient autonomy, complemented by clear and consistent policy guidance and capacity training. The selection mechanism for education leadership positions should be aligned with technological developments. Additionally, dedicated technical personnel should be provided to support schools and local education bureaus, alleviating their technical burdens.

The report also emphasizes that these support measures must be built on the genuine experiences and concerns of leaders, ensuring that the pace and


Available at:
https://www.unesco.org/gem-report/en/search?category=Global+Education+Monitoring+Report&query=Lead+for+Technology

direction of reforms are practical and moderately controllable. For example, South Korea's "Guidelines for Digital Education Practices," to be released in 2024, is formulated based on extensive feedback from frontline teachers, aiming to ensure the safe and responsible use of digital devices in schools.

It is important to encourage collaboration and communication between school leadership and local education management, as this is crucial for collectively addressing the challenges of reform. In China, Qinghai Province has established cooperative mechanisms with more digitally advanced regions like Shanghai, Jiangsu, and Zhejiang to promote knowledge sharing and experience exchange.

The report also specifically points out that the capability for using and integrating educational data urgently needs to be strengthened to support monitoring and diagnosis, as well as to enhance policy efficiency. Currently, countries are trying different approaches to reduce system fragmentation and resource wastage. China has integrated 32 provincial-level platforms into a unified national smart education public service platform and classified them systematically according to educational stages and curricula. In South Korea, local platforms are being merged with the national platform based on feedback from local education authorities.

The interoperability of data and system compatibility has also been listed as a key focus for reform. In 2023, Japan launched Education Data Standard 4.0 to facilitate seamless data connection between local entities and schools. However, the report also cautions that an excessive reliance on data for monitoring may enable regions with a good technical foundation to gain easier access to resources and policy pilot opportunities, thereby exacerbating educational inequality.

## Panel Discussion: Leadership and Digital Transformation in Practice

During the Panel Discussion, **Prof. ZHAO Jianhua** from the Center for Future Education Research and Director of the Center for AI Education Research, Southern University of Science and Technology; **Mr. Yuta Yoneda**, Manager of KOEI Research & Consulting Inc., Japan; and **Dr. Eun Young Kim**, Director of the Korean Educational Development Institute (KEDI), engaged in in-depth discussions on their respective countries' practices in educational leadership and digital transformation.


Photo of Panel Discussion

**Prof. ZHAO Jianhua** shared a report on Chinese educational leadership and digital transformation. The report unfolds from four aspects: analyzing how educational leadership and its practices support digital transformation, developing a relevant leadership framework, integrating government models and experiences from 18 Smart Education zones, and analyzing 1,597 cases of digital transformation alongside 32 policy cases from 2022. The report categorizes Chinese education policy into three phases: 1978-2000, 2000-2018 (ICT Education 1.0, focusing on infrastructure), and from 2018 to the present (a critical period for digital transformation). It analyzes the policy framework from the perspectives of national policy leadership and 10 core themes, mentioning initiatives such as the governance structure at the central, provincial, and county levels and AI pilot projects at the school level, while citing examples like the Cloud School in Qinghai and Shenzhen. It highlights the shift in policy focus from infrastructure to systemic reform, compares it with Japan and South Korea, points out challenges such as insufficient teacher capabilities, and suggests multi-layer training and attention to technological ethics.

**Mr. Yuta Yoneda** introduced Japan's GIGA project, initiated by the Ministry of Education, which was originally planned to achieve full coverage of public elementary and secondary schools by 2023 (ensuring every student has a device and that schools have high-speed internet). However, due to the COVID-19 pandemic, it was completed ahead of schedule in 2020, and it also encompasses software (developing ICT curricula and providing technical support) and human resources (conducting ICT training for teachers). The research identified four core findings: First, defining goals; the Ministry divided the digital transformation into three phases to ensure alignment of objectives at the national, municipal, and school levels. Second, focusing on learning by building ICT infrastructure and assisting teachers in integrating ICT with traditional teaching methods. Third, promoting collaboration by establishing school ICT leadership, creating sharing platforms, and fostering school-business partnerships. Fourth, developing personnel through peer observations and sharing to advance professional development. It was also noted that principals need to focus on equitable distribution to ensure equal educational experiences, with key outcomes including a combination of best practices among five key points.

**Dr. Eun Young Kim** introduced the characteristics of its digital education policy: first, it is a fully integrated system that emphasizes the collaboration of curriculum, infrastructure (focusing on equity), and teacher training, shifting teaching methods from traditional practices to learner and AI-driven approaches, and strengthening interactions among teachers and students, as well as student-to-student interactions; second, demonstration projects are implemented in phases, starting with theoretical research, followed by selecting pilot schools to explore issues, and finally nationwide promotion; third, there is an emphasis on building the capabilities of teachers and leaders, enhancing teachers' digital skills through training, and principals must encourage teachers to participate in relevant activities; fourth, it promotes public-private partnerships (collaboration between schools and enterprises) and interdepartmental cooperation, breaking down departmental barriers to support transformation.

## Keynote Speech：The Integration and use of AI Governance

During the keynote speech session, **Dr. Obijiofor Aginam**, Director of the UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP), delivered a keynote speech titled Leadership and Digital Transformation. He pointed out that while digital technologies have the potential

to reduce education costs and improve information access efficiency, the global digital divide continues to widen, with developing countries particularly facing severe challenges due to shortages in technological resources. To achieve the Sustainable Development Goals in education, it is imperative to establish a new social compact for education and ensure equitable access to education as a fundamental human right.

**Prof. WU Fati** from the School of Educational Technology, Faculty of Education of Beijing Normal University, who is also the Director of the Engineering Research Center of Digital Learning and Educational Public Service under the Ministry of Education, delivered a report titled Innovation in Teaching Models and Teacher Role Transformation within the Teacher-Student-Machine Instructional Framework. He pointed out that generative AI is driving the transformation of the teaching structure from a “teacher-student duality” to a “teacher-student-machine tripartite entity,” a shift that is restructuring the educational system and positioning the intelligent agent as a “third entity” deeply involved in the teaching process. The new structure supports human-AI collaboration, personalized learning guidance, and intelligent tutoring, fostering innovative teaching models and providing a structural foundation for achieving educational goals in the intelligent era.

**Prof. GU Xiaoqing**, Director of the Department of Education Information Technology, East China Normal University, mentioned in her report titled How AI is Reshaping Education: Adaptive Strategies for Schools that AI is transforming the educational ecosystem and driving profound changes in perspectives on knowledge, learning, and the role of teachers. She emphasized that under AI-powered learning, education is becoming more personalized, with teaching interactions enabling real-time diagnosis and feedback, thereby offering students a more diverse experience. Schools should actively respond to changes and meet the new requirements for talent training in the smart era.

**Mr. Ahmed Ansary**, Founder President and Group Managing Director of Asia e University, pointed out in his keynote speech titled Shaping Education’s Future in the Intelligent Era that the current knowledge renewal is accelerating exponentially, doubling every 12 hours. He emphasized that education should not only focus on degree conferral, but also cultivate students’ lifelong learning capabilities to address future challenges. He called for the education system to rethink learning objectives and methods, proactively adapt to the transformations of the intelligent era, and provide learners with opportunities to continuously update their knowledge and skills.


During the **invited speech segment**, insights and practical experiences were shared from multiple perspectives on topics such as the construction of an artificial intelligence education ecosystem, the enhancement of teachers' digital literacy, regional smart education practices, innovation in AI-enabled teaching models, changes in learning and assessment paradigms, the digital transformation of vocational education, and global digital equity. These discussions collectively explored feasible paths for the digital transformation of education. The guests include:


**Mr. YANG Xiaohui**, Director of the Education Commission of Fengtai District, shared six aspects of constructing the education ecosystem in Fengtai District, Beijing: First, building an AI education ecosystem to empower high-quality educational development, focusing on solving educational pain points; second, promoting AI general education (with three levels: regional, school-based, and drone-themed) and participating in the preparation of related guidelines; third, enhancing teachers' AI literacy through online courses, competitions, and contributing case studies to the Ministry of Education reports; fourth, establishing regional educational large models and encouraging schools to carry out AI applications; fifth, building a teacher communication platform, hosting international conferences, and developing collaborative teaching cases; sixth, Deepening academic research to drive the transformation and dissemination of Fengtai's AI education achievements.

**Mr. Thierry Verdel**, Rector, Universite Senghor, Egypt introduced the three aspects of transformation that Senghor University has pursued over the past decade, including digital transformation, with a focus on enhancing the accessibility of information sharing, management efficiency, and cost reduction through online tools. Their administrative activities are fully digitalized, utilizing personalized templates to collaboratively complete weekly reports and annual reports through shared documents. They manage students and conduct data analysis using forms, store documents on Google Drive, and adopt a decentralized system, making them a leader in low-cost transformation among higher education institutions in Africa.

**Mr. LI Xiaohai**, Director of the Education Commission of Kaizhou noted that Located in northeastern Chongqing along the upper reaches of the Yangtze River, Kaizhou District is a large Three Gorges resettlement area with a sizable population and education system. Leveraging rapid advances in digital and AI technologies, Kaizhou is accelerating educational digital transformation to narrow gaps and promote high-quality development in less-developed regions. Through systematic planning, sustained investment in digital infrastructure, and extensive partnerships, the district has built a comprehensive smart education ecosystem. It focuses on strengthening digital leadership among principals, enhancing teachers' AI-enabled teaching capacities, and cultivating students' digital literacy. By prioritizing application-driven scenarios and data-informed governance, Kaizhou is steadily advancing toward equitable, efficient, and high-quality education development.

**Prof. Don Klinger**, Deputy Vice-Chancellor for Education at Murdoch University, Australia, was invited to speak at the conference and share fundamental issues that need to be addressed in education during the AI era—specifically, the significance of teaching, learning, and assessment, with a focus on human-machine collaboration and higher-level student learning. He mentioned the taxonomy of learning objectives and reviewed the evolution of learning from the Information Age , to the Knowledge Age, and now to the AI Age. He emphasized the need to cultivate students' higher-level abilities such as analysis, creativity, and teamwork. He highlighted issues related to AI's impact on minority cultures, human responsibility, and high energy consumption, and ultimately called for reflection and discussion.

**Dr. Sylvie Mucyo**, Vice-Chancellor of Rwanda Polytechnic, shared her thoughts on the integration of AI in Rwanda's vocational education. She pointed out that existing skills are inadequate to meet demand, and employers expect abilities such as analytical thinking. Rwanda's current AI policy consists of three pillars: 21st-century skills, infrastructure, and data strategy, focusing on cultivating the AI literacy of faculty and staff, enhancing students' critical thinking and practical skills, and incorporating values such as integrity into institutional culture.

**Ms. ZHANG Huimin**, Director of the Shenzhen Education Information Technology Center, introduced the "1+4" (Version 2.0) model for artificial intelligence education in Shenzhen: Shenzhen starts from the dual zones, aligning its policies with the country's digital transformation. Relevant plans will be implemented from 2023 to 2025. The "1" represents the core objective — to build a pioneer city in educational artificial intelligence. The "4" focuses on learning methods, teacher roles, scene matching, and the promotion of innovative projects. In September, the physical co-creation center will be established alongside future learning centers. There will also be initiatives such as recruiting leaders and engaging with pioneer schools, inviting global participation.

**Prof. Romeela Mohee** introduced how the Mauritius Higher Education Commission is formulating national guidelines for artificial intelligence to ensure that universities use AI responsibly, ethically, and effectively. It emphasizes the need to balance the benefits and risks of AI, promoting clear policies, capacity building, data governance, and a rational integration of AI in teaching to support instruction, learning, research, and institutional decision-making.

**Ms. PENG Xuezhuang**, Deputy Director of the Digital Education Department of the Affairs Center of the Guangdong Provincial Department of Education, shared Guangdong's innovative practices in regional digital textbooks aimed at educational digitization. She emphasized that educational digitization should focus on the comprehensive development of individuals and core competencies, integrating technology with education rather than simply applying technology. The Guangdong digital textbook initiative began with the "Yuejiao Cloud" plan in 2013 and progressed to full coverage in 2018 (addressing the resource weaknesses in eastern and northern Guangdong through a large-screen model), resulting in an online user base of 16 million. Key measures include building the "Yuejiao Xiangyun" learning space, high-level learning models for digital textbooks, and research and teaching spaces, all aimed at addressing the challenges of students' deep learning and teaching innovation.

**Ms. WAN Shulan**, Principal of the Yuhua Experimental Primary School Group, shared grassroots school practices under the theme "From Classroom Management to Teaching Intelligence." Drawing on experiences from ordinary schools, she outlined four approaches to digital transformation: integrating the concept of "expanding thinking through learning" with intelligent technologies; building a support system through a "Four Cultivations and One Principle" research mechanism and a university–school collaborative platform; strengthening instruction through technology-enabled pre-class precision, in-class interaction, and post-class workload reduction; and establishing quality benchmarks through a "three dimensions and six characteristics" classroom evaluation framework.


This parallel session was jointly moderated by Prof. ZHANG Jingjing, Vice Dean, the Faculty of Education, Beijing Normal University, China; Dr. Manos Antoninis, Director, UNESCO Global Education Monitoring (GEM) Report; and Dr. Shitanshu Mishra, Chief of Digital Learning, AI and IT, National Information Technology Officer, UNESCO MGIEP.

*The Parallel Session: Leadership and Digital Transformation was jointly organized by the UNESCO Global Education Monitoring Report Team, the UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (UNESCO MGIEP), and the UNESCO Chair on AI in Education (UNESCO Chair in AIED).

## Key Takeaways

- The digital transformation of education is an important breakthrough for achieving the 2030 goals. It is essential to enhance leadership to coordinate the efforts of various stakeholders and to avoid the digital divide. He pointed out that China has built the world's largest smart education platform, promoting the integrated application of artificial intelligence, emphasizing the capacity building of administrators, and calling for strengthened international cooperation to jointly create an open and inclusive new ecosystem for digital education.
- Strengthening leadership and policy guidance is necessary to ensure the inclusiveness and safety of technology integration in education. Furthermore, there is a call for investing in the digitization of public education, promoting cross-sector collaboration, putting people first, and fostering sustainable development to ensure that no one is left behind.
- "The speed of change in digital education technology is astounding. Therefore, human-centered care must be injected into the reforms to ensure that student needs remain at the core. The leadership of schools and educational systems plays a crucial role in this process; supporting this leadership is key to achieving truly student-centered outcomes in educational technology policies across countries.
- While digital technology has the potential to reduce education costs and enhance information access efficiency, the global digital divide continues to widen, with developing countries facing severe challenges related to a shortage of technological resources. Achieving sustainable development goals in education urgently requires the establishment of a new type of social contract in education to ensure fair and accessible education as a fundamental human right.
- Generative artificial intelligence is driving a shift in the educational structure from a "teacher-student dual" model to a "teacher-student-machine triad" model. This transformation reconfigures the educational system, making the educational intelligent entity the "third subject" deeply engaged in teaching. The new structure supports human-machine collaboration, personalized guidance, and intelligent assistance in learning, fostering innovative teaching models and providing a structural foundation for achieving educational goals in the intelligent era.

# Sino-Finnish Smart Education Forum & JoLII 10th Anniversary Ceremony

The Sino-Finnish Joint Learning Innovation Institute (JoLII), was jointly proposed and established in 2015 by the Ministry of Education of China and the Ministry of Education and Culture of Finland. Beijing Normal University and the University of Helsinki in Finland serve as the leading universities. The institute has always been committed to building an interdisciplinary international research platform, integrating resources in multiple fields such as education, psychology and artificial intelligence, and promoting student-centered, inclusive and innovative educational transformation.

Marking the 10th anniversary of the Sino-Finnish Joint Learning Innovation Institute (JoLII) at Beijing Normal University, the Smart Education Forum will showcase a decade of collaborative research and pioneering practices developed by Chinese and Finnish scholars. Honouring past achievements while setting the course for the future, the Forum seeks to generate fresh insights and forward-looking solutions for global education by harnessing the power of AI. The programme features the JoLII anniversary celebration, keynote speeches by distinguished experts from both countries, and a panel discussion.


**Photo of Sino-Finnish Smart Education Forum & JoLII 10th Anniversary Ceremony**

## SPEAKERS

**Mr. YANG Jun**, Vice President and Secretary General, China Education Association for International Exchange (CEAIE)

**Ms. Tiina Vihma-Purovaara**, Senior Ministerial Adviser, Ministry of Education and Culture of Finland

**Mr. Olli Suominen**, Counsellor of Education and Science, Embassy of Finland, Beijing

**Prof. LUO Yuejia**, President-Elect, Chinese Psychological Society

**Prof. CHEN Xing**, Vice President, Beijing Normal University

**Prof. Hannele Niemi**, University of Helsinki; Member, Finnish Academy of Science and Letters; UNESCO Chair on Educational Ecosystems for Equity and Quality of Learning

**Prof. LIU Baocun**, Director, Institute of International and Comparative Education, Beijing Normal University

**Prof. Jari Lavonen**, University of Helsinki; Member, Finnish Academy of Science and Letters

**Prof. YU Shengquan**, Executive Director, Advanced Innovation Center for Future Education, Beijing Normal University; Director, Ministry of Education–China Mobile Joint Laboratory for Mobile Learning

**Prof. Tuija Turunen**, The Leader of Teacher Education, University of Lapland

**Prof. Signe Siklander**, Faculty of Education and Psychology, University of Oulu

**Dr. Anitta Melasalmi**, Lecturer, Faculty of Education, University of Turku

**Prof. JIA Jiyou**, Head, Department of Educational Technology, Graduate School of Education, Peking University

**Prof. LU Yu**, Director, AI Lab, Advanced Innovation Center for Future Education, Beijing Normal University

**Dr. TANG Xin**, Associate Professor, School of Education, Shanghai Jiao Tong University

**Prof. WANG Jun**, Vice Dean of Faculty of Psychology, Beijing Normal University; Director, JoLII China

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## MODERATORS

**Prof. ZHOU Zuoyu**, Vice Chairman, University Council of Beijing Normal University; Director, UNESCO International Research and Training Centre for Rural Education (INRULED); Chair, JoLII Board China

**Prof. WANG Jun**, Vice Dean of Faculty of Psychology, Beijing Normal University; Director, JoLII China

**Prof. Inkeri Ruokonen**, Faculty of Education, University of Turku

**Dr. Outi Kyrö-Ämmälä**, Vice Dean, Faculty of Education, University of Lapland

**Dr. Shuanghong Jenny Niu**, Faculty of Educational Sciences, University of Helsinki

In his opening speech, **Mr. YANG Jun**, Vice President and Secretary General, CEAIE, stated that the Sino-Finnish JoLII, has become a model for China-Europe educational cooperation over the past ten years. The association has engaged in deep collaboration with Finland in areas such as artificial intelligence, education, and psychology, promoting numerous exchanges between teachers and students, joint research, publication results, and training programs. Both sides will continue to explore innovations in digital education, jointly serve the sustainable development goals, and welcome more teams to join in telling the effective story of Chinese education to the world.

**Ms. Tiina Vihma-Purovaara**, Senior Ministerial Adviser, Ministry of Education and Culture of Finland, congratulated JoLII on its tenth anniversary in her congratulatory letter and wished for its smooth development and the successful completion of the celebration event.

**Mr. Olli Suominen**, Counsellor of Education and Science, Embassy of Finland in China, addressed the event via video. He stated that the Joint Learning and Innovation Research Institute (JoLII) is not only an important platform for educational cooperation between the two countries, but also a key milestone in the development of Finland-China bilateral relations. On behalf of the Finnish Embassy in China, he extended his warmest congratulations and sincere wishes to all colleagues who contributed to the establishment of JoLII.

**Prof. LUO Yuejia**, President-Elect, Chinese Psychological Society, emphasized in his speech that psychological well-being is a core element of social development. He pointed out that JoLII serves as an important interdisciplinary cooperation platform between China and Finland in the fields of education and psychology. Over the past decade, it has conducted a substantial amount of cutting-edge research on topics such as mental health education and AI-enabled learning, resulting in a number of internationally influential outcomes. He looks forward to both sides continuing to deepen research on AI ethics and the integration of psychological technology, jointly nurturing international talents, and creating a new benchmark for educational innovation cooperation between China and Finland.

**Prof. CHEN Xing**, Vice President, Beijing Normal University stated in his speech that the forum and celebration not only showcase the deep cooperative spirit and friendship between China and Finland, but also reflect both parties' shared concerns about the future development of education. He emphasized that the topics discussed at the forum, such as how artificial intelligence and digital technologies impact education, are aimed at reaffirming both sides' educational missions. He called for further deepening cooperation between Chinese and Finnish universities to jointly promote educational innovation, benefiting the future of education in both countries and globally.

After the opening remarks, the 10th anniversary celebration of the Sino-Finnish Joint Learning Innovation Institute officially commenced with blessings from fourteen council members from both China and Finland. To commemorate the ten years of development and to recognize outstanding contributors, the celebration established four awards: the Outstanding Contribution Award, the Research Cooperation Award, the Innovation Pioneer Award, and the Friendship Model Award. Guests from both sides jointly presented the awards to the recipients, and the venue was filled with continuous applause. The convergence of warmth and

honor not only commemorated the rich achievements of Sino-Finnish educational cooperation over the past decade but also reflected the firm confidence and collaborative strength of both parties as they step into the future together.





During the keynote speeches, experts from China and Finland engaged in in-depth discussions on the deep integration of artificial intelligence and education. They focused on core issues such as learner autonomy, teachers' AI literacy, innovative curriculum design, and intelligent educational tools. The series of reports not only showcased the latest achievements from both sides in the field of smart education but also provided forward-looking ideas and practical references for global educational reform.

**Prof. Hannele Niemi**, University of Helsinki; Member, Finnish Academy of Science and Letters; UNESCO Chair on Educational Ecosystems for Equity and Quality of Learning, noted in her report titled "The Subjectivity of Learning in the Age of Artificial Intelligence" that while AI brings new opportunities for education, it also poses challenges to human autonomy. She emphasized that education should place greater emphasis on fostering students' initiative for learning, critical thinking, and value judgment skills, ensuring that technology truly serves the holistic development of individuals.

**Prof. LIU Baocun**, Director, Institute of International and Comparative Education, Beijing Normal University, pointed out in his report that teachers are a key force in advancing the digital transformation of education. He systematically reviewed the policies and practices of various countries in enhancing teachers' AI literacy and suggested that a tailored, tiered framework for teachers' AI literacy should be developed soon to align with the realities of Chinese education. He also proposed building specialized AI training programs based on the national smart education platform and strengthening international

collaboration to promote continuous improvement in teachers' AI literacy, thereby empowering the modernization of education.

**Prof. Jari Lavonen**, University of Helsinki; Member of Finnish Academy of Science and Letters, uses Finland's primary school programming and robotics curriculum as an example to demonstrate how interdisciplinary projects effectively cultivate students' creativity and critical thinking, providing a practical model for the training of future innovative talents.

**Prof. YU Shengquan**, Executive Director, Advanced Innovation Center for Future Education, Beijing Normal University; Director, Ministry of Education–China Mobile Joint Laboratory for Mobile Learning, pointed out that the essence of generative AI (such as ChatGPT) empowering humanity is cognitive outsourcing. However, effective cognitive outsourcing requires learners to have a strong prior knowledge base and a complete cognitive structure, enabling them to ask precise questions, critically integrate information, and engage in deep processing. He emphasized that education should guide students to establish effective connections between internal cognitive networks and external intelligence, avoiding the cognitive superficiality and loss of subjectivity that excessive outsourcing can trigger, in order to achieve true cognitive enhancement.



During the panel discussion, experts and scholars from China and Finland engaged in in-depth exchanges on the theme of "The Impact of Artificial Intelligence and Digital Technology on Education." Participants in the discussion included: **Prof. Tuija Turunen**, The Leader of Teacher Education, University of Lapland; **Prof. Signe Siklander**, Faculty of Education and Psychology, University of Oulu; **Dr. Anitta Melasalmi**, Lecturer, Faculty of Education, University of Turku; **Prof. JIA Jiyou,** Head, Department of Educational Technology, Graduate School of Education, Peking University; **Prof. LU Yu,** Director, AI Lab, Advanced Innovation Center for Future Education, Beijing Normal University; **Dr. TANG Xin**, Associate Professor, School of Education, Shanghai Jiao Tong University.

**Prof. Tuija Turunen** mentioned that artificial intelligence has changed the way educators work, with commonly used AI tools assisting in translation, proofreading, and gaining inspiration. In the future teacher training, she hopes that teachers will make more use of the internet rather than relying solely on books. They also need to possess advanced AI skills, good thinking, and critical thinking abilities to collaborate and innovate with AI. Considering that AI iterates every six months, that would amount to 40 iterations over 20 years. Future teachers need to maintain curiosity, effectively use tools, and adopt a critical attitude, combining deep professional knowledge with ongoing professional development. This is the mission of teacher education.

**Prof. Signe Siklander** stated that artificial intelligence is used in daily work for teaching, research, and grant applications, as it can enhance efficiency and assist in information processing and creative generation. He is currently focusing on the support that artificial intelligence provides for gamified teaching methods and related pedagogical knowledge, believing that it is necessary to explore relevant methodologies. He noted that AI can offer different ideas to assist human innovation rather than merely combining existing ideas, which is very useful in the processing of grant proposals. Additionally, he mentioned that Finnish teachers have limited use of AI tools like chatbots, and the acceptance of educational AI is influenced by individual competencies and socio-cultural factors.

**Dr. Anitta Melasalmi** believes that the multidimensional capabilities of artificial intelligence are crucial for her work. She emphasizes that future teachers need to be competent in all aspects related to AI and should focus on researching how to enhance key skills. Additionally, she points out that previous discussions did not address the issue of curriculum continuity, particularly how to maintain it during transitional periods. Furthermore, she mentions that in early childhood education, it is essential to clarify the skills that young children should possess and the deep understanding that teachers need. She stresses the importance of cultivating the ability of teachers in elementary, middle, and preschool to integrate artificial intelligence into their teaching practices.

**Prof. JIA Jiyou** stated that artificial intelligence and information technology have simplified his life and improved the efficiency of teaching and personal learning. However, he also mentioned the dual nature of technology. As Professor Yu Shengquan pointed out, technology has made him lazy, leading to situations like forgetting how to write or being unable to perform simple mathematical calculations. This reflects that artificial intelligence and digital technology have both positive impacts on personal learning and life, as well as negative effects.

**Prof. LU Yu** has been engaged in artificial intelligence education for ten years, witnessing the transition from traditional artificial intelligence to standard TVI. He mentioned that traditional artificial intelligence research and AIED conferences typically had around two to three hundred participants, whereas this year's related conference saw 1,000 participants. A survey of the participants indicated that 70% were attending such forums for the first time, with many being practitioners and researchers in the education sector. This change signifies a significant increase in participation in the field of artificial intelligence education, reflecting the growing attention and influence of artificial intelligence in education, which is attracting more education-related professionals to get involved.

**Dr. TANG Xin** mentioned that artificial intelligence and digital technology have brought significant changes to the study of learner well-being. In the past, research relied on paper surveys, but now, with the help of digital tools like mobile sensors, high-frequency real-time data can be collected, providing more accurate feedback on learner well-being. This is precisely where AI excels in providing real-time feedback. In traditional classrooms, well-being research needed to be conducted in group settings, and if individual data were to be evaluated, one-on-one teaching was

required. However, the application of AI has completely transformed this traditional research model, optimizing both the efficiency and specificity of well-being research.

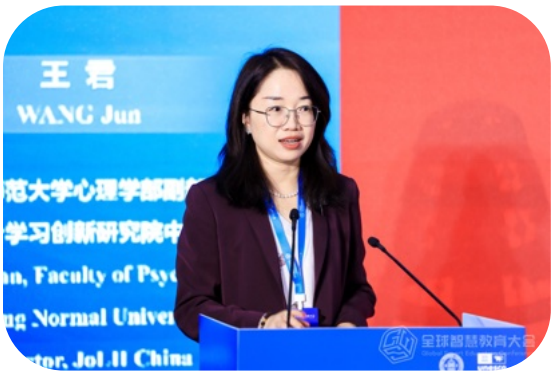
that in the next decade under JOLII, new methods and technologies will be found to help learners use AI efficiently, and looks forward to reconvening in Finland in November, with the vision of creating a better world through improved learning.

## Closing Ceremony

Prof. WANG Jun, Vice Dean of Faculty of Psychology, Beijing Normal University; Director, JoLII China, and Prof. Hannele Niemi, University of Helsinki; Member, Finnish Academy of Science and Letters; UNESCO Chair on Educational Ecosystems for Equity and Quality of Learning delivered the closing summary together.

**Prof. WANG Jun:** reviewed the ten-year journey and achievements of JOLII, expressing gratitude for the pioneering accomplishments, collaboration, and educational innovations from all parties involved. He emphasized that education is not just about knowledge transfer; it is also about empowerment, fostering critical thinking, and preparing future generations. He also mentioned the four exciting keynote speeches at the forum and the roundtable discussion on the impact of AI and digital technology on education, stating that they inspired exchanges of ideas and collaboration, enriching the understanding of the future of education. Lastly, he expressed hope for stimulating reflective innovation, encouraging curiosity and collaboration to advance education in the digital age in the next decade, and thanked the participants and staff.

**Prof. Hannele Niemi** mentioned the willingness to use digital tools and AI to assist in work, reflecting on the interplay between AI and human agency, emphasizing that students need support to make good use of AI. At the same time, she expressed concerns about the new digital divide, pointing out that equitable access to AI requires support from teachers and policies, and invited everyone to join JOLII to bridge this gap. She emphasized the importance of international cooperation to build platforms and take responsibility, using the metaphor of "universe and planets" to highlight our duty towards every child.





*The Sino-Finnish Smart Education Forum & JoLII 10th Anniversary Ceremony was jointly organized by the Department of Psychology of Beijing Normal University (BNU) and the Sino-Finnish Joint Learning Innovation Institute (JoLII).

This parallel session was jointly moderated by Prof. ZHOU Zuoyu, Vice Chairman, University Council of Beijing Normal University; Director, UNESCO International Research and Training Centre for Rural Education (INRULED); Chair, JoLII Board China; Prof. WANG Jun, Vice Dean of Faculty of Psychology, Beijing Normal University; Director, JoLII China; Prof. Inkeri Ruokonen, Faculty of Education, University of Turku; Dr. Outi Kyrö-Ämmälä, Vice Dean, Faculty of Education, University of Lapland, and Dr. Shuanghong Jenny Niu, Faculty of Educational Sciences, University of Helsinki.

## Key Takeaways

- Education should guide students to establish an effective connection between their internal cognitive networks and external intelligence, avoiding the cognitive superficiality and loss of agency caused by excessive outsourcing, in order to achieve true cognitive enhancement.
- Education should place greater emphasis on cultivating students' initiative in learning, critical thinking, and value judgment abilities, so that technology can genuinely serve the comprehensive development of individuals.
- Artificial intelligence and digital technology can help improve teaching efficiency and personalized learning levels, but their effective application must be predicated on a high level of critical thinking and AI literacy among both teachers and students.
- We should leverage artificial intelligence and digital technology to empower every future talent, allowing critical thinking and collaborative spirit to lead both sides into a new decade.
- We must remain vigilant about the potential risks brought by technology, including cognitive outsourcing, lack of educational equity, weakening interpersonal relationships, and ethical safety issues.
- Priority should be given to fostering students' curiosity and reflective abilities, incorporating metacognitive training into the entire teaching process, and promoting the construction of open, safe, and interdisciplinary educational resource platforms.

# Parallel Session: Digital Transformation in TVET

As a new wave of technological revolution continues to unfold, the integration of education and information technology is entering a stage of deep digital development. Vocational education informatization is shifting from an emphasis on scale expansion to a focus on quality enhancement, structural optimization, and internal capacity building. The digital era brings new demands and challenges, as digital transformation reshapes economies and societies and increases the need for talent with strong digital competencies, interdisciplinary skills, and lifelong learning capacity. Advancing the digital transformation and upgrading of vocational education has therefore become an urgent and strategic task of our time, closely linked to workforce development and economic resilience.

This session explores digitally driven reforms in teaching methodologies within vocational institutions, the development and application of digital teaching platforms, the use of generative AI, AI-enabled tutoring and assessment, innovative models of industry–academia collaboration, curriculum standards, new paradigms of on-demand learning, AI-assisted courseware development, and the construction of lifelong service systems in technical and vocational education and training (TVET).


**Group photo of Parallel Session: Digital Transformation in TVET**

## SPEAKERS

**Mr. LI Zhi**, Director of the Department of Vocational and Adult Education, Ministry of Education, P.R. China

**H.E. Dr. Ali Haidar Ahmed**, Minister of Higher Education, Labour and Skills Development, Republic of Maldives

**Mr. FENG Yu**, General Manager of Sports Entertainment and Education Business Group of CCTV.com, China

**Dr. Andreas Schleicher**, Director for Education and Skills, Organization for Economic Co-operation and Development (OECD)

**Dr. Habibah Abdul Rahim**, Director, Southeast Asian Ministers of Education Organization (SEAMEO) Secretariat

**Prof. HE Zhen**, Director of the Institute for Vocational and Adult Education, Faculty of Education; Dean, National Vocational Education Research Institute, Beijing Normal University

**Prof. Käthe Schneider**, Chair of Adult Education, Friedrich Schiller University Jena, Germany

**Prof. HAN Xibin**, Tenured Professor of School of Education, Tsinghua University.; Member of the Education Digitalization Advisory Committee of the Ministry of Education

**Prof. ZHANG Buhe**, Director of the Institute of Vocational Education and Continuing Education, Chinese Academy of Educational Sciences, China

**Ms. CHANG Shuang,** Deputy General Manager of Beijing Weixun Technology Co., Ltd.

**Mr. ZHANG Chengtao**, Vice President, Public Affairs Division, Huawei Technologies Co., Ltd., China

**Prof. CHEN Jiangfeng**, Vice President, Beijing Vocational University of Science and Technology, China

**Mr. YU Biao**, Chairman of Fuzhou Software Technology Vocational College, China

**Mr. LI Hongyin**, Party Committee Secretary, Shenyang Polytechnic College, China

**Mr. FANG Xu**, Vice President of Xianning Vocational and Technical College, China

**Mr. Daton Eric NGILINSHUTI**, Division Manager of Digital Content and Connectivity, Rwanda Polytechnic

**Mr. XU Yunguo**, President of Laiwu Vocational and Technical College, China

**Mr. ZHANG Tun**, Director of the Digital Learning Resource Center at the National Open University, China

**Mr. MA Yongtao**, Vice President of Weihai Ocean Vocational College, China

**Ms. LI Mei**, Director of the Academic Affairs Office, Hunan Vocational College for Nationalities, China

**Prof. Rory Mcgreal**, Athabasca University, Canada

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## MODERATORS

**Mr. DENG Lidongguang**, Director of Sports Entertainment and Education Business Group of CCTV.com, China

**Mr. Khat Prumsochetra**, Deputy Director, SEAMEO TED

**Mr. ZHANG Peng**, Director, Public Platform Division, Center for Education Management Information, Ministry of Education, P.R. China

**Prof. WANG Feng**, Vice President, Suzhou Vocational University, China

In the opening speech, **Mr. LI Zhi**, Director of the Department of Vocational and Adult Education, Ministry of Education, China, pointed out that China has fully launched the "National Education Digital Strategy Action 2.0." Vocational education will simultaneously achieve "five leaps": in strategic positioning, it will transition from teaching tools to an intelligent ecosystem; in the technological route, it will upgrade from "Internet + Education" to "AI + Education"; in the construction focus, it will shift from resource coverage to standard leadership; in learning models, it will move from standardized teaching to personalized training; in governance levels, it will upgrade from platform operation and maintenance to data governance. The world's first "Overall Reference Framework Alliance Standard for Education Large Models" was also recently released, providing a Chinese solution for the ethics and copyright of educational AI.

**H.E. Dr. Ali Haidar Ahmed**, Minister of Higher Education, Labour and Skills Development, Republic of Maldives, stated that digitalization is no longer an option but a strategic cornerstone for national competitiveness. He called for the establishment of a comprehensive digital learning platform to promote immersive simulations and adaptive technologies, enabling "on-demand learning." Furthermore, he emphasized the need to deepen collaboration between schools and enterprises through digital platforms, providing students with virtual internships and skill certifications anytime and anywhere.

**Mr. FENG Yu**, General Manager of Sports Entertainment and Education Business Group of CCTV.com, China, proposed three initiatives from a media perspective: consolidating the digital infrastructure to establish a “new foundational system” for TVET; enhancing open cooperation and launching the “five ones” measures to build a community characterized by integration of industry and education; and promoting resource sharing through introducing an AI campus toolkit and digital artificial factories to bridge digital divides among regions and schools. He noted that these efforts will provide more than 30 million vocational college students with equitable access to high-quality education.

**Dr. Andreas Schleicher**, Director for Education and Skills at the Organization for Economic Co-operation and Development (OECD), pointed out that the latest survey data show a record high level of uncertainty among 15-year-olds worldwide regarding their future careers. In this context, he emphasized that the digital transformation in TVET needs to bridge the gap between aspirations and capabilities through “digital career guidance.” He praised countries such as China for utilizing AI and virtual apprenticeship systems to bring high-end vocational experiences to even the most remote corners of the world, creating broader future opportunities for disadvantaged youth.

## Keynote Speech

During the keynote speech session, **Dr. Habibah Abdul Rahim**, Secretary-General of Secretariat of Southeast Asian Ministers of Education Organization (SEAMEO), noted that the digital readiness of TVET in Southeast Asia remains at a “learner stage,” and it is necessary to accelerate the integration of technology into teaching through policy-industry collaboration to narrow gaps.

**Prof. HE Zhen**, Director of the Institute for Vocational and Adult Education, Faculty of Education of Beijing Normal University, introduced BNU’s research-driven approach to vocational education reform. Drawing on the National Institute of Vocational Education and national high-level think tanks, BNU has built

a large-scale database covering 100,000 students and 7,000 teachers, and published Exploring Vocational Education Modernization in China. Responding to the reshaping of vocational education in the AI era, he proposed a framework grounded in “curriculum task theory” and “teaching action theory,” positioning “digitally intelligent work tasks” as a new anchor for vocational education. Through six enabling conditions—including AI-generated curricula, virtual internships, and blockchain-based credentialing—this approach aims to advance industry–education integration, lifelong learning, and continuous skills renewal.

**Prof. Käthe Schneider**, Chair of Adult Education at the Friedrich Schiller University Jena, Germany, highlighted that generative AI has evolved from a tool to a “co-creation partner.” She stressed that TVET must remain vigilant against the loss of subjectivity and advocated for the use of high-quality prompts to turn AI into a “reflection engine” that fosters cognitive, intrapersonal, and interpersonal growth. She further suggested that TVET practices should embed self-reflection throughout the entire human-AI interaction process, replacing one-way dependency with a cycle of “questioning-reflection-re-questioning.” She noted this approach not only amplifies the potential of AI for personalized development but also systematically mitigates the risk of weakened independent thinking abilities.

**Prof. HAN Xibin**, Tenured Professor at the School of Education, Tsinghua University, Member of the Education Digitalization Advisory Committee of the Ministry of Education, introduced that under the coordination of the Ministry of Education, China has established a digital and intelligent TVET system covering 1,349 majors and serving over 19 million users. He pointed out that the “3C” philosophy of “Connection, Content, and Cooperation” enhances rural internet connectivity and aggregates resources from universities and enterprises, and through it, the system has enabled integration of industry and education and personalized lifelong learning. He noted that in the next phase, China will leverage the “National Educational Digitalization Strategy Initiative 2.0” and the Guidelines for the Application of Artificial Intelligence in TVET to build a global digital community for TVET and create a new ecosystem for future smart education.

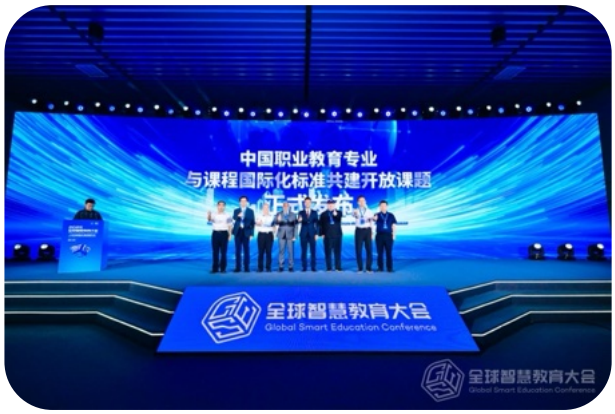
**Prof. ZHANG Buhe**, Director of the Institute of Vocational Education and Continuing Education, China National Academy of Educational Sciences, shared that China’s vocational education has upgraded from the “3C” philosophy of “Connection, Content, and Cooperation” to the “3I” approach of “Integration, Intelligence, and Internationalization.” The world’s largest vocational education resource repository has been established, serving 33 million learners. Moving forward, it is essential to focus on four key pathways: top-level design, integration of industry and education, enhancement of teachers’ digital literacy, and internationalized training. These efforts will deepen digital reform, synchronize with industrial advancements, and cultivate high-quality and skilled talents for the intelligent era.

## Release Session

During the release session, **Ms. CHANG Shuang**, Deputy General Manager of Beijing Weixun Technology Co., Ltd., introduced the latest achievement: the "Human-AI Collaborative Teaching Super Agent."

At the forum, **Mr. ZHANG Peng**, Director of Public Platform Division, Center for Education Management Information, Ministry of Education of China, announced the launch of the "*International Dissemination of Chinese Vocational Education Profession and Curriculum Standards*".


Scene from the presentation on the "Human-AI Collaborative Teaching Super Agent"




Group photo of guests at the initiative's launch

The agent is designed to address the efficiency issues related to improving productivity in the AI era for students and the time-consuming preparation work for teachers (15-20 hours per week), as well as the lengthy process of creating micro-classes and teaching materials. The agent includes two engines: the first is a resource generation engine that can automatically create PPTs, micro-classes, etc., supporting customized digital personas and interactive teaching with intelligent robots; the second is an AI + digital textbook platform that can import/generate textbooks with one click, integrating with hundreds of publishers. The collaboration of these two engines aims to achieve a 1+1>10 effect, liberating teachers from repetitive labor.

The " *Curriculum Standards* " is jointly initiated by the National Engineering Research Center of Cyberlearning and Intelligent Technology and the Center of Information & Network Technology at Beijing Normal University, and the Hainan Guoyu Education Research Institute. The project aims to enhance the quality and level of global technical talent cultivation by promoting the international export of Chinese vocational education curriculum standards. It targets national higher vocational colleges with strong professional foundations and rich experiences in international cooperation, aiming to collaboratively promote the development and application of international standards while fostering global vocational education. The areas covered include agriculture, logistics, and other fields, aligning curricula with global industrial trends and balancing international standards with local needs.

## Invited Speech

During the invited speech session, several guests shared insights on topics such as the development of vocational colleges, the growth of educational enterprises, and the integration of industry and education, with a focus on TVET in the context of digitalization.

**Mr. ZHANG Chengtao**, Vice President, Public Affairs Division of Huawei Technologies Co., Ltd.. In a report titled “Digital Transformation of Vocational Education and Cultivation of Vocational Talents”, Mr. ZHANG discussed the practical aspects of vocational education. He first introduced the three stages of AI (including Huawei's Pangu large model), referring to it as possibly the last industrial revolution for humanity and predicting its future impact. He pointed out that the training of vocational talents is shifting from Type I to a more structured approach, providing ICT courses and digital training, and also introduced a vocational education 1+3 solution.

**Prof. CHEN Jiangfeng**, Vice President, Beijing Vocational University of Science and Technology, China shared his exploration of the role of digital intelligence in empowering the high-quality development of vocational education, focusing on three aspects: National Strategy: The goal is to build a strong education country by 2035, with digitalization in vocational education guided by policy, making it an important topic for school development. Transformation Practice: This involves closely aligning with Beijing's industrial layout to build a digital foundation and integrate systems, obtaining recognition as a demonstration school, and utilizing AI to empower teaching evaluations and student learning conditions. Future Direction: The integration of AI into teaching, promoting the integration of industry and education, and achieving multiple alignments.

**Mr. YU Biao**, Senior Vice President of NetDragon Websoft Inc. and Chairman of Fuzhou Software Technology Vocational College, shared a report titled " Challenges and Solutions in School-Enterprise Cooperation in Digital Transformation" discussing the experience of integrating education and industry. The advantages include leveraging opportunities, non-interference in management by the host, the dual identity without cognitive barriers, and a practical approach to running educational institutions. Success requires the ability to integrate resources and capabilities, a willingness to exchange profits for resources, and deep engagement in the industry. He highlighted the pain points of private higher vocational education and called for policy empowerment, such as relaxing the ratio of part-time teachers.

**Mr. Li Hongyin**, Secretary of the Party Committee of Shenyang Polytechnic College, gave a report titled " Intelligent Empowerment & Industry-Education Integration: Practical Pathways and Outcomes in Cultivating Digital Craftsmen for Vocational Education" sharing the school's practices in cultivating exceptional digital craftsmen, four-dimensional innovation, and the four-level training of faculty. He also discussed the outcomes of talent cultivation and professional development, as well as three major initiatives for the future.

**Mr. FANG Xu**, Vice President of Xianning Vocational and Technical College, delivered a report titled " From Standards to Practice: How Digital Transformation Supports the Construction of Vocational Education Majors" discussing the professional and digital characteristics of the new version of the "Directory of Majors in Vocational Education" issued by the Ministry of Education, as well as the requirements for building a new digital teaching ecosystem under the new "Double High" initiative. He also introduced the school's digital exploration in various aspects such as core concepts, training objectives, and curriculum in conjunction with the new professional standards, along with digital measures in teacher training, industry-education integration, and evaluation.




**Mr. Daton Eric NGILINSHUTI**, Division Manager of Digital Content and Connectivity at Rwanda Polytechnic, delivered a report titled " Digital Integration in Rwandan Higher Education: A Model for Emerging Economies—How Rwanda Polytechnic is Leveraging Technology to Transform TVET in Africa". The presentation explored the digitalization of higher education in Rwanda and highlighted practical issues such as the large scale of the African workforce, the lack of training, and significant skill gaps. Rwanda Polytechnic is leveraging AI to integrate vocational education and empower teachers, emphasizing the need for deeper industry collaboration to achieve future goals.

**Mr. XU Yunguo**, President of Laiwu Vocational and Technical College, delivered a report titled " Dual-Drive, Four-Dimensional Collaboration, and Integrated Innovation—The Practice of "Overall Digital Leap of Majors" at Laiwu Vocational and Technical College". He discussed the college's vocational education practices based on professional units and enhanced by digitalization. He introduced the idea of advancing with a "professional core," as well as four-dimensional collaborative measures such as digital twins (like virtual factories) and AI empowerment, along with the effectiveness of the five-domain empowerment.

**Mr. ZHANG Tun**, Director of the Digital Learning Resource Center at the National Open University, delivered a report titled " Promote the Digital Development of Education with the Construction of Digital and Intelligent Learning Resources" In his presentation, he discussed how the construction of digital learning resources supports the digitalization of education. He mentioned the four future developments outlined in the "White Paper on Smart Education," and introduced the situation of the National Open University, the Digital Learning Resource Center for Online Education (which consists of 264 sub-centers), and various resource platforms that assist in the digital transformation of vocational education.

**Mr. MA Yongtao**, Vice President of Weihai Ocean Vocational College, delivered a report "Reconstructing Realities with Digital Thinking to Promote Change—Innovative Development at Weihai Ocean Vocational College." He outlined the college's digital transformation, introduced its profile, and explained the connotations of digital thinking. He also shared practices across five dimensions—thinking, governance, education, human resources, and application—and published related monographs to support digital transformation in vocational education.


**Ms. LI Mei**, Director of the Hunan Vocational College for Nationalities, stated that Hunan Vocational College for Nationalities has long undertaken the tasks of supporting education. Over the past decade, the college has developed a unique model for cultivating digital literacy through dedicated efforts.

**Prof. Rory Mcgreal,** Athabasca University, noted that artificial intelligence can significantly enhance the creation and use of open educational resources. He emphasized that AI expands access, personalization, and efficiency in education, and that educators who understand and effectively leverage AI will be best positioned to thrive in this evolving educational landscape.

*The Parallel Session: Digital Transformation in TVET was organized by the Institute for Vocational and Adult Education, Faculty of Education, Beijing Normal University, the Southeast Asian Ministers of Education Organization (SEAMEO), CCTV.com, Fuzhou Software Technology Vocational College, the Center of Information & Network Technology of Beijing Normal University, and the National Engineering Research Center of Cyberlearning and Intelligent Technology, in collaboration with Beijing Weixun Technology Co., Ltd. and OUC Ubiquitous (Beijing) Education Technology Co., Ltd.


This parallel session was jointly moderated by Mr. DENG Lidongguang, Director of Sports Entertainment and Education Business Group of CCTV.com, China, Mr. Khat Prumsochetra, Deputy Director, SEAMEO TED, Mr. ZHANG Peng, Director, Public Platform Division, Center for Education Management Information, Ministry of Education, P.R. China and Prof. WANG Feng, Vice President, Suzhou Vocational University.

## Key Takeaways

- China has fully launched the “National Education Digitalization Strategy Action 2.0,” and vocational education will simultaneously achieve “five leaps”: Strategic positioning will shift from teaching tools to an intelligent ecosystem. The technological pathway will upgrade from “Internet + Education” to “AI + Education.” The focus of development will transition from resource coverage to standard-led initiatives. Learning modes will evolve from standardized teaching to personalized training. Governance levels will upgrade from platform operation and maintenance to data governance.
- Digitalization is no longer an option but a strategic fulcrum for national competitiveness. The digital transformation of vocational education must bridge the gap between dreams and capabilities through "digital career guidance."
- In Southeast Asia, the readiness of vocational education for digitalization is still at the "learner stage." There is a need for policy and industry collaboration to accelerate the integration of technology into teaching and reduce disparities.
- Vocational education practice should embed self-reflection throughout the AI interaction process, replacing one-way dependence with a cycle of "question-reflection-re-question." This approach amplifies the opportunities for personalized development brought about by AI while systematically mitigating the risks of diminishing independent thinking abilities.
- China's vocational education has transitioned from the "3C" connection and sharing phase to a new upgrade path of "3I" (Integration, Intelligence, Internationalization), establishing the world's largest vocational education resource database.
- The vision of China's vocational education curriculum standards is to serve global businesses venturing abroad, enhance the capacity for technical talent cultivation in target countries, and promote the construction of a high-quality education system and resource sharing.

# Parallel Session: AI and STEM Education in K12 Schools

Amid the rapid advancement of artificial intelligence and emerging technologies, K–12 education is entering a new phase of transformation marked by deeper integration between AI, STEM education, and pedagogical innovation. As countries worldwide seek to strengthen scientific literacy, computational thinking, and innovation capacity among young learners, there is growing attention to how AI can reshape curriculum systems, teaching models, and learning environments in primary and secondary schools.

This parallel session centers on key themes including the development of artificial intelligence education systems and curriculum innovation in primary and secondary schools; the integration of science education and STEM education and the transformation of teaching models; AI-empowered interdisciplinary teaching and project-based learning practices; effective cultivation of students' scientific innovation literacy and computational thinking in basic education; representative cases of regional policy support and curriculum system development; the design of intelligent learning and experimental spaces; and the role of artificial intelligence in driving educational reform.


**Group Photo of Guests from Parallel Session: AI and STEM Education in K12 Schools**

## SPEAKERS

**H.E. Mr. Douglas Munsaka Syakalima**, Minister of Education, Republic of Zambia

**Mr. CHEN Dongsheng, Deputy Director**, Department for Supervision of After-School Tutoring Institutions, Ministry of Education, P.R. China

**Ms. Shafika Isaacs**, Chief of Section for Technology and AI in Education, UNESCO Future of Learning and Innovation Team

**Prof. XIONG Zhang**, Professor, Beihang University; Director, the National Key Research Base for Teaching Materials Construction "Research Base for Information Technology Teaching Materials in Primary and Secondary Schools"; Member of the Scientific Discipline Expert Committee of the National Teaching Materials Committee, China

**Mr. Shanks YANG**, Vice President of Tencent Cloud, Head of Tencent Education Industry Solutions, China

**Ms. Katrina Laguarda**, Senior Researcher, SRI International, the U.S.

**Mr. WANG Jie**, Science Popularization Writer, Screenwriter/Director of Science Popularization Film, China

**Prof. Carlos Alberto Pereira de Oliveira**, Director, the Multidisciplinary Institute of Human Development with Technologies, Rio de Janeiro State University, Brazil

**Prof. YAM Yeung**, Director and Professor at the Shenzhen Research Institute (SZRI), The Chinese University of Hong Kong, China

**Mr. HE Zhanping**, Deputy Director of the Education and Sports Bureau of Ordos, Inner Mongolia, China

**Mr. LI Yi**, Founder Beijing Yuanli Science and Technology Co., Ltd., China

**Prof. Daniel Burgos**, UNESCO Chair on e-Learning; Professor, International University of La Rioja, Spain

**Mr. CHEN Chang-Chieh**, Vice President, NetDragon Websoft Inc.; Vice Dean, Smart Learning Institute of Beijing Normal University, China

**Ms. LIN Junfen**, Director of the Education and Science Institute of Futian District, Shenzhen, China

**Mr. WANG Xiaoyong**, Deputy Director of the Education Bureau of Siming District, Xiamen Province, China

**Mr. LIU Guofei**, Deputy Head of the Artificial Intelligence Education Working Group at the National Center for Educational Technology; General Manager of AI Innovation Education at iFLYTEK, China

**Ms. Sanura Jaya**, Technology Education Specialist, SEAMEO Regional Centre for Education in Science and Mathematics (RECSAM)

**Prof. CAO Peijie**, Director, Institute of Digital Education, China National Academy of Educational Sciences, China

**Prof. Danimir Mandic**, Dean of Faculty of Teacher Education, University of Belgrade, Serbia

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## MODERATORS

**Mr. LI Zelin**, Director of the Basic Education Curriculum Magazine and Secretary General of Future Education Committee of China Association for International Education Exchange, China

**Prof. LU Yu**, Vice Dean of the School of Educational Technology, Faculty of Education, Beijing Normal University; Director of the Artificial Intelligence Laboratory, Advanced Innovation Center for Future Education, China

**Prof. TANG Xiaolan**, Associate Professor at the School of Information Engineering & Head of the Artificial Intelligence (Teaching) Program, Capital Normal University, China

**Prof. ZHAI Xuesong**, Distinguished Research Fellow at the School of Education & Head of Science Education Degree, Zhejiang University, China

## Empowering Education Development with Artificial Intelligence

During the opening remarks session, **Mr. CHEN Dongsheng,** Deputy Director, Department for Supervision of After-School Tutoring Institutions, Ministry of Education of China pointed out that in recent years, China has placed great importance on the development of artificial intelligence education and scientific education in primary and secondary schools. A series of policy documents and practical measures have been introduced, such as the establishment of a science education alliance, the release of the “Guidelines for General Education in Artificial Intelligence for Primary and Secondary Schools (2025 Edition)” and the “Guidelines for Student Use of Generative Artificial Intelligence (2025 Edition).” These efforts aim to build an educational ecosystem that covers all levels and integrates both in-class and extracurricular activities. He emphasized the need to strengthen the construction of technological ethics, promote the establishment of industry conventions and self-regulation mechanisms that empower students through intelligent agents, and facilitate the role of AI technology in advancing educational equity and high-quality development.

**H.E. Mr. Douglas Munsaka Syakalima**, Minister of Education of Zambia, emphasized that developing countries need to seize the educational opportunities of the AI era by promoting curriculum reform, teacher training, and international cooperation to upgrade their education systems. He called for a global effort to build "ethical consensus and regulatory standards" to ensure that AI truly serves the right to education for all humanity.

## Keynote Speech

During the keynote speech session, **Ms. Shafika Isaacs**, Chief of Section for Technology and AI in Education, UNESCO Future of Learning and Innovation Team, presented a report entitled “Cultivating Learner Agency through Joy of STEM Learning”. She stressed that STEM education should inspire joy and belonging, promote equity for marginalized learners, and strengthen AI ethics awareness among teachers and students. She cautioned that AI may widen global inequalities if poorly governed, but can also drive a shift toward joyful, learner-centered STEM education. She highlighted the development of an AI capability framework and underscored the importance of international cooperation to address global learning challenges, including the 270 million children currently out of school.

**Prof. XIONG Zhang**, Beihang University; presented a report titled “Making AI Education Enjoyable". He pointed out that AI is a qualitative change to education, which should be run as an enjoyable education, rather than the old way of utilitarianism and test-taking. He emphasized that emphasis should be placed on the cultivation of

utilitarianism and test-taking. He emphasized that emphasis should be placed on the cultivation of interdisciplinary ability, AI literacy and values, and the promotion of the integration of traditional culture and modern technology, so that young people can realize the innovative development of morality, intelligence, physical fitness, aesthetics and labor in the synergy of man and machine, and truly enjoy the joy of learning.

**Mr. Shanks YANG**, Vice President of Tencent Cloud, Head of Tencent Education Industry Solutions, China, delivered a presentation titled “Tencent’s Exploration and Practice in AI-Generated Content (AIGC) Education for Youth” showcased the "Youth AIGC Creation Workshop" as an example of how multimodal tools under the "AI IN ALL" concept can stimulate interdisciplinary expression and student creativity. He emphasized the importance of ensuring application safety through secure boundaries and the three-way interaction between teachers and students.

**Ms. Katrina Laguarda**, Senior Researcher, SRI International, presented a report titled “CoolThink@JC: Scaling Up Computational Thinking Education in Hong Kong Primary Schools”. She outlined the project’s closed-loop ecosystem, including curriculum design, digital platforms, teacher training, and assessment mechanisms. She emphasized that one of the most significant achievements was the increased confidence among low-achieving students, demonstrating that the core goal of computational thinking education is to cultivate creators who use technology to serve society.

**Mr. WANG Jie**, Science Popularization Writer, Science Popularization Film Screenwriter/Director delivered a presentation titled “Science Education on Screen”, suggested igniting young people‘s passion for science through cinema-quality science films, using storytelling to promote the spirit of science and critical thinking. He called for social support and is committed to creating science popularization films that meet international standards, so that the spirit of science can truly resonate in the hearts of young people.

**Prof. Carlos Alberto Pereira de Oliveira**, Director, the Multidisciplinary Institute of Human Development with Technologies, Rio de Janeiro State University presented a report titled “Smart Education, Digital Justice: Ethics, Cooperation, and Inclusion in the Age of AI”. He called for the establishment of a new global education equity framework to support countries in the Global South in achieving more equitable educational opportunities through artificial intelligence.

**Prof. YAM Yeung**, Director and Professor at the Shenzhen Research Institute (SZRI), presented a report titled “Pioneering Secondary AI Education in Hong Kong through the CUHK-JC AI4Future Project: Impact and Insights”. He introduced how The Chinese University of Hong Kong is advancing the large-scale implementation of the AI4Future curriculum across 238 secondary schools in Hong Kong, through an integrated approach that combines ethics education, foundational knowledge, and hands-on teacher training.

**Mr. HE Zhanping**, Deputy Director of the Education and Sports Bureau of Ordos, Inner Mongolia, presented a report titled “Redefining Digital Literacy and Pedagogical Paradigms with AI: The Educational Transformation of Ordos”, shared regional AI education practices based on the approach of "standardization + platform integration + expansion of clubs," promoting the synergy between curriculum and competitions. He pointed out that AI deeply empowers teaching across all subjects and smart teaching research, driving the transformation of classroom models towards a "student-centered" approach.

**Mr. LI Yi**, Founder of Beijing Yuanli Science and Technology Co., Ltd., presented a report titled “Rebuilding Future Cognition for Adolescents in the AI Era”, pointed out that the core of education in the AI era is to reshape the future cognition of teenagers, with a key focus on cultivating the ability to collaborate with AI and develop advanced human intelligence. He emphasized the need to reshape the cognition and abilities of teenagers in the AI era and proposed a new educational model of "human-machine collaboration," aiming to promote the deep integration of programming education with various disciplines.

## Release Session

In the release segment, the National Engineering Research Centre of Cyberlearning and Intelligent Technology and Beijing Yuanli Science and Technology Co., Ltd., jointly announced the " Video Collection Plan on Artificial Intelligence Education and Teaching". This plan aims to gather the experience and insights of teachers, researchers, and principals from across the country to promote the implementation of AI technology in various educational scenarios, enhance teaching effectiveness, meet students' individualized needs, and facilitate a paradigm shift in educational management, contributing to the high-quality development of basic education.


**Photo of Video Collection Plan on Artificial Intelligence Education and Teaching**

After that, the "New Artificial Intelligence Curriculum for Primary and Secondary Schools " has been released, collaboratively developed by the College of Information Engineering at Capital Normal University, which is one of the first in the country to offer AI (teacher training) majors and has a strong foundation in curriculum development, in partnership with Tencent Education, which provides practical platform support. This curriculum focuses on innovation and aims to provide quality resources for AI education in primary and secondary schools.


**Photo of Releasing New Artificial Intelligence Curriculum for Primary and Secondary Schools**

The final release is the "Tencent Education AIGC Youth Innovation Program" which relies on the Tencent Youth AI Education Platform. With AIGC technology as its core engine, it aims to connect high-quality educational resources and establish a platform for cultivating innovative thinking and AI practical skills among young people, helping them shine with their wisdom.

In the second round of keynote speech, **Prof. Daniel Burgos**, UNESCO Chair on e-Learning; Professor, International University of La Rioja in Spain, delivered a presentation titled " How Artificial Intelligence Can Control Narrative in Education" He emphasized that AI narratives should not dominate educational truths, and that it is essential to adhere to ethical frameworks and humanistic sentiments in order to avoid technological alienation.

**Mr. CHEN Chang-Chieh**, Vice President, NetDragon Websoft Inc.; Vice Dean, Smart Learning Institute of Beijing Normal University, has presented a report titled “ Making Learning as Fun as Leveling Up: NetDragon’s AI-Powered Educational Exploration" He advocates for using games and virtual reality to create an AI education metaverse, covering practical pathways in 192 countries and exploring a new form of "play-learning integration."

**Ms. LIN Junfen**, Director of the Education and Science Institute of Futian District, Shenzhen, presented a report titled “Regional Practice for the Holistic Application and Governance Framework of AI in Education” which proposes a “Six Ones” governance system. The report emphasizes the empowerment of AI for personalized learning, interdisciplinary integration, and the growth of teachers' capabilities.

The Deputy Director of the Education Bureau of Siming District, **Mr. Wang Xiaoyong**, presented a report titled "From Cube to Ecosystem: Exploring Holistic Learning-Practice Chains in AI Education" which elaborates on the construction of the "AI Cube" and the "Science and Education Ecological Circle," promoting a comprehensive upgrade of AI education from curriculum to practical application.




**Mr. LIU Guofei**, Deputy Head of the Artificial Intelligence Education Working Group at the National Center for Educational Technology; General Manager of AI Innovation Education at iFLYTEK, delivered a report titled " Practice and Reflection on K12 AI Literacy Education". He proposed a "1+X" general education curriculum system that integrates curriculum reconstruction, digital experimentation, and teacher empowerment, which has already been implemented in over 5,000 schools.

**Ms. Sanura Jaya**, Technology Education Specialist, SEAMEO Regional Centre for Education in Science and Mathematics (RECSAM), presented multinational practices in AI-enabled K–12 STEM education, highlighting approaches to urban–rural integration and sustainable educational development.

**Prof. CAO Peijie**, Director, Institute of Digital Education, China National Academy of Educational Sciences, delivered a report titled " Pathways for Science Education Development in the Age of Intelligence". In the report, he emphasized that scientific education should shift from "knowledge science" to "problem science," promoting collaborative innovation between large models and AI educational materials.

**Prof. Danimir Mandic,** Dean of Faculty of Teacher Education, University of Belgrade, Serbia, delivered a video speech titled “The Role and Pedagogical Effects of AI-Based Interactive Avatars in Education.” In his presentation, he examined the role of interactive digital humans in education and their impact on teaching effectiveness.







This parallel session was jointly moderated by Mr. LI Zelin, Director of the Basic Education Curriculum Magazine and Secretary General of Future Education Committee of China Association for International Education Exchange; Prof. LU Yu, Vice Dean of the School of Educational Technology, Faculty of Education, BNU; Director of the Artificial Intelligence Laboratory, Advanced Innovation Center for Future Education; Prof. TANG Xiaolan, Associate Professor at the School of Information Engineering & Head of the Artificial Intelligence (Teaching) Program, Capital Normal University, and Prof. ZHAI Xuesong, Distinguished Research Fellow at the School of Education & Head of Science Education Degree, Zhejiang University.

*The Parallel Session: AI and STEM Education in K12 Schools was organized by UNESCO Chair on AIED, UNESCO Chair on e-Learning, League of Arab States Educational, Cultural and Scientific Organization (ALECSO), Southeast Asian Ministers of Education Organization Regional Center for Science and Mathematics Education (SEAMEO RECSAM), Journal of Basic Education Curriculum, School of Educational Technology, Faculty of Education, Beijing Normal University, co-organized by Tencent and Beijing Yuanli Science and Technology Co., Ltd..

## Key Takeaways

- Efforts should be made to strengthen the construction of technological ethics and promote the establishment of industry conventions and self-regulatory mechanisms that empower students' comprehensive growth through intelligent agents, facilitating equitable access to education and high-quality development through AI technologies.
- We should collaboratively build "ethical consensus and regulatory standards" to ensure that AI genuinely serves the right to learn for all humanity.
- STEM education should inspire students' interest and sense of belonging, focus on the equitable development of marginalized groups, and enhance the understanding of AI ethics among teachers and students.
- Emphasis should be placed on interdisciplinary capabilities, AI literacy, and value cultivation while promoting the integration of traditional culture with modern technology.
- AI narratives should not dominate educational truths; we must adhere to ethical frameworks and humanistic values to avoid technological alienation.
- A new global education equity system should be established to help countries in the Global South achieve equal educational opportunities through AI.
- Creating an AI education metaverse using games and virtual reality can explore new forms of "play-and-learn integration."
- A new model of education based on "human-machine collaboration" should be promoted, integrating programming teaching deeply into various subjects.
- AI should deeply empower teaching across all disciplines and intelligent teaching research, promoting a shift in classroom models toward a "learner-centered" approach.
- We must emphasize AI's role in enabling personalized learning, interdisciplinary integration, and the growth of teacher capabilities.

# Parallel Session: Smart Learning and Care in Kindergarten

Digital technologies are increasingly empowering educational reform to enhance the quality of preschool education, serving as a vital driver of educational modernization and a key pathway toward the sustainable development of early childhood education.

This parallel session focuses on the new ecosystem of preschool education shaped by human–machine collaboration. It explores how early childhood education can undergo meaningful transformation through human–AI synergy, enabling innovative and integrated approaches to teaching and learning. By envisioning digitally enabled and intelligent application scenarios in preschool settings, the session seeks to illuminate new possibilities for early childhood education in the era of human–machine collaboration.


Photo of Parallel Session: Smart Learning and Care in Kindergarten

## SPEAKERS

**Dr. YANG Yinfu**, Secretary-General of the Secretariat, the Chinese Society of Education, China

**Prof. LI Guang**, National Training Center for Kindergarten Principals, Ministry of Education, China

**Mr. ZHANG Guoyou**, Deputy Director, Education Bureau of Xiaoshan Dstrict, Hangzhou, China

**Ms. WANG Tingting**, Deputy Director, Changping District Education Commission of Beijing, China

**Mr. ZHANG Yanfeng**, Director, Education Bureau of Wei County, Hebei Province, China

**Prof. XUE Gui**, Professor, Department of Psychology, Beijing Normal University, China

**Prof. YANG Junfeng**, Professor, Hangzhou Normal University, China

**Prof. TAO Ying**, Associate Professor, Nanjing Normal University, China

**Prof. LI Xiaowei**, Professor, Faculty of Education, Beijing Normal University, China

**Ms. LI Ahui**, Principal of Kaiyue Preschool Education Group, Xiaoshan District, Hangzhou, China

**Ms. JIAO Yang**, Principal, Beijing Junyi Star Education Group, China

**Ms. SHAO Lifang**, Principal of Heshang Town Central Kindergarten, Xiaoshan District, Hangzhou, China

**Ms. TIAN Hui**, Principal of Yinchuan Kindergarten, Beijing Normal University, Ningxia Autonomous Region, China

**Ms. XU Qin**, Principal of Hangzhou Xiaoshan District Workers' Kindergarten, China

**Ms. CHEN Yao**, Principal of Parkland No.1 Kindergarten, Longcheng Street, Longgang District, Shenzhen, China

**Ms. WANG Wei,** Principal of Shushan Guangyuan Kindergarten, Xiaoshan District, Hangzhou City, China

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## MODERATORS

**Mr. ZHU Shengying**, Chairman of Beijing Normal University Publishing Group, China

**Mr. ZHU Zongshun**, President, Zhejiang Preschool Education Research Association

**Ms. BAO Hongyu**, Planning Editor, Teacher Education Branch, Beijing Normal University Publishing Group, China

## Strengthen Policy Guidance and Anchor the New Direction of Digital Intelligent Early Childhood Education

In the opening remark, **Dr. YANG Yinfu**, Secretary-General of the Secretariat, the Chinese Society of Education, made remarks. He pointed out that the official implementation of the "Law on Preschool Education of the People's Republic of China" marks a new stage in the development of preschool education in our country, characterized by "public welfare and universal accessibility, safety, and high quality." He emphasized that human-machine collaboration is not only an integration of technology but also a process of creating new educational scenarios. It is essential to adhere to a child-centered approach and to accelerate the digital transformation of preschool education through innovative practices such as intelligent reading and gamified interactions.

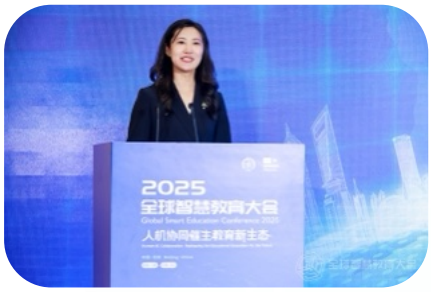
**Prof. LI Guang**, National Training Center for Kindergarten Principals, Ministry of Education of China, emphasized in his speech that this meeting is a concrete action to actively respond to the national strategy for digital education. The goal is to promote high-quality development in early childhood education by using artificial intelligence as a "key variable." He fully acknowledged the exemplary role played by Xiaoshan District in Zhejiang Province in building a smart early childhood education community and called for an accelerated establishment of a national smart early childhood education ecosystem. He urged breaking down barriers related to resources, scenarios, and governance, and to unwaveringly pursue a development path centered on "children first, technology empowerment, and collaborative construction."

## Education Department Report: Sharing Practical Wisdom, Showcasing New Paths for Digital Intelligence Integration

**Mr. ZHANG Guoyou**, Deputy Director, Education Bureau of Xiaoshan Strict, Hangzhou City, stated in his report that Xiaoshan has effectively promoted innovative scenarios in regional preschool education by constructing a "Digital Intelligence Early Childhood Education Community." This model leverages digital empowerment for the inclusive development of preschool education and relies on a "1+10+N" radiation mechanism. Centered around Kaiyue Kindergarten as the core pilot, it collaborates with 29 leading kindergartens across 13 provinces and cities. Through a combined “teaching research + support + guidance” approach, it provides precise empowerment to practice kindergartens in various provinces and cities, offering a "Xiaoshan Solution" to address the imbalanced development of preschool education.

**Ms. WANG Tingting**, Deputy Director, Changping District Education Commission of Beijing, elaborated on the concepts of "protection" and "breakthrough" in the context of intelligent and digital early childhood education in her keynote speech. The district has always adhered to national education policies as its guiding principle, continuously expanding quality educational resources since 2013. It emphasizes the critical role of multi-party collaboration in early childhood education and utilizes digital tools and technologies to comprehensively enhance the quality of preschool education in the region through innovative methods.

**Mr. ZHANG Yanfeng**, Director, Education Bureau of Wei County, Hebei Province, shared in his keynote speech the specific practices of promoting local early childhood education development by leveraging the digital experience from Xiaoshan District. By adopting advanced digital technologies, Weixian County has effectively improved the quality of preschool education, showcasing a new vision of shared, collaborative, and mutually beneficial early childhood education.




## Expert Report: Integrating Smart Education to Solidify the Scientific Foundation of Digital Applications

**Prof. XUE Gui**, Professor, Department of Psychology, Beijing Normal University presented the core idea in his report: "Follow the rules of brain and intelligence development to scientifically promote children's growth." He emphasized that education should align with the developmental patterns of children's brains and intelligence, adapt to their growth needs, and leverage digital technology to implement more flexible and personalized teaching, supporting the comprehensive development of young children.

**Prof. YANG Junfeng**, Professor, Hangzhou Normal University focuses on the ethical risks of human-machine collaboration in early childhood education. He points out the need to be vigilant about risks that AI may bring, such as technology-induced, educational practice-related, and subject development-related risks. He suggests that we should build a healthy artificial intelligence education ecosystem based on ethical principles, standardized criteria, and international cooperation.

**Prof. TAO Ying**, Associate Professor, Nanjing Normal University analyzed the various applications of artificial intelligence toys and robots in the physical, cognitive, emotional, and social development of young children. She pointed out that these technologies help promote interpersonal interaction, gamified learning, and the construction of new educational platforms, becoming an important force in driving educational innovation, improving teaching quality, and enhancing students' learning interest.

**Prof. LI Xiaowei**, Professor, Faculty of Education, Beijing Normal University suggested that, in response to the rapid development of generative artificial intelligence technology, kindergarten teachers need to progress from merely using foundational tools to cultivating competencies centered on ethical reflection, teaching innovation, and professional development. Only then can they truly master technological transformation and safeguard the essence of education.

## Release Session: Harnessing the Power of Community to Co-construct a New Ecosystem for Intelligent Early Childhood Education

During the release session, a ceremony was held for the appointment of experts leading the Digital Intelligence Early Childhood Education Community. The " *Guidelines for the Construction of Digital Education Application Scenarios in Kindergartens* " was also published. Awards were presented to the First Batch of Leading Kindergartens in the Digital and Intelligent Preschool Education Community, as well as for outstanding examples of smart education in preschool. Beijing Aibingguo Technology Co., Ltd., Hengxin Oriental Children's (Guangzhou) Cultural Industry Development Co., Ltd., and iFlytek Co., Ltd. jointly Launch Ceremony of the *First Batch of Leading Kindergarten AI Intelligent Tools Donation*, showcasing the achievements of China's exploration and the collaborative ecosystem in the field of digital intelligence early childhood education.


Photos of Appointment Ceremony and Award Ceremony


Photos of Launch Ceremony

## Experience Report: Innovative Practices in Early Childhood Education and Care Empowered by Digital Intelligence

In the Case Report, seven principals shared their practical experiences in the application of Smart Education in their respective kindergartens. They focused on various scenarios such as digital reading, collaboration between home and community, teacher training, project activities, and evidence-based evaluation. Their insights included innovative applications of artificial intelligence technology in daily education and care, providing replicable and scalable practical models for kindergartens across the country, thereby supporting the high-quality development of digital and intelligent preschool education.

**Ms. LI Ahui**, Principal of Kaiyue Preschool Education Group, Xiaoshan District, Hangzhou City, presented a report titled " When Reading Meets Innovation: Creating Digital-Intelligent Reading Scenarios in Kindergarten Education". In the current stage of preschool education, attention should be paid to children's creativity. Four principles for technology-enabled early reading should be established, and a three-tiered digital reading scenario should be constructed to form a triadic interaction between teachers and children using AI. This initiative will enhance children's imaginative development, build a new type of teacher-child relationship, and radiate resources. It emphasizes that teachers are wise conductors, while children are active explorers.

**Ms. JIAO Yang**, Principal, Beijing Junyi Star Education Group, gave a presentation titled " Embracing Artificial Intelligence, Building a New Future for Early Childhood Education". The kindergarten introduces AI and robotics programming from the middle school level, focusing on allowing children to explore project results while teachers provide support. This approach enables children to gain joy, learning experiences, and confidence. Additionally, they collaborate with Yuan Programming to teach programming thinking to young children using cards. They look forward to AI providing instant feedback and protecting children's creativity, but also mention the potential issue of technology development leading to fatigue. They emphasize that early childhood education requires warm encouragement from teachers, and the group is open to collaboration.

**Ms. SHAO Lifang**, Principal of Heshang Town Central Kindergarten, Xiaoshan District, Hangzhou City, presented a report titled “ One Town is One Garden: Innovation of Ecological Study and Research Scenarios for Young Children‘s Homes and Communities”. They conduct community research and study based on local intangible cultural heritage to bridge the gap between young children and traditional culture, transforming the ancient town into a “wall-less kindergarten." In practice, they utilize digital maps (an AI early education app providing research and study guidance), borderless teaching (linking kindergartens, families, schools, and communities, including research plans, reservations, and on-site experiences), and ecological self-growth. Their case has received awards at various levels and has been included in the regional AI early education resource database.

**Ms. TIAN Hui**, Principal of Yinchuan Kindergarten, Beijing Normal University, Ningxia Autonomous Region, presented a report titled " Focus on Deep Learning: Intelligent Empowerment of Kindergarten Project Activity Scenario Innovation ". She shared the innovation of activity scenarios in the digital and intelligent empowerment of kindergarten projects, focusing on deep learning, establishing the Jianmudu resource library, and using digital tools for intelligent observation and assessment to assist teaching. She emphasized that digital intelligence should serve children's genuine exploration, adhering to a child-centric perspective.



**Ms. XU Qin**, Principal of Hangzhou Xiaoshan District Workers' Kindergarten, gave a report titled " Growing with Teachers' Rhythm: Innovation of Digital Intelligence Research and Training Scenarios for Kindergarten Teachers ", shared that the Xiaoshan District's kindergarten for employees has introduced a "Smart Four-Step Method" for training and research to address the significant differences in teachers' digital literacy and the ineffectiveness of traditional training. This approach includes profiling, prescription, resources, and evaluation, aiming to enhance teachers' capabilities in a personalized manner and improve their digital application scores as well as parental satisfaction.

**Ms. CHEN Yao**, Principal of Parkland No.1 Kindergarten, Longcheng Street, Longgang District, Shenzhen City, gave a report titled “ Seeing Growth: Smart Evaluation Drives Children’s Learning Scene Creation ”, shares how data-driven evidence evaluation supports personalized learning for young children. Since 2020, the kindergarten has been conducting observations and assessments of children. In 2022, they developed the "Earth Growth" platform, which integrates observation-assessment-planning-support cycles with AI and four evaluation tools, using case studies to facilitate children's growth.

**Ms. WANG Wei**, Principal of Shushan Guangyuan Kindergarten, Xiaoshan District, Hangzhou City, gave a presentation titled " Awakening Children‘s Creative Consciousness: AI Reshaping Kindergarten Culture and Scene Innovation ". She shares how to use AI to address issues such as the lack of children's presence in outsourced garden songs and gaps in the creative process. Through a five-step collaborative approach involving corpus collection and AI generation, children become co-creators, teachers become designers, and the institution evolves into a cultural living entity.


This parallel session was jointly moderated by Mr. ZHU Shengying, Chairman of Beijing Normal University Publishing Group, China; Mr. ZHU Zongshun, President, Zhejiang Preschool Education Research Association and Ms. BAO Hongyu, Planning Editor, Teacher Education Branch, Beijing Normal University Publishing Group, China.

*The Parallel Session: Smart Learning and Care in Kindergarten was jointly organized by the Publishing Group of Beijing Normal University, Education Bureau of Xiaoshan District in Hangzhou, Kindergarten Principal Training Center of the Ministry of Education, Zhejiang Province Preschool Education Research Association, and National Engineering Research Center of Cyberlearning and Intelligent Technology at Beijing Normal University.

## Key Takeaways

- We must adhere to the center of child development, accelerate the digital transformation of preschool education through innovative practices such as digital intelligence reading and game-based interaction.
- It is a concrete action to respond to the national education digitalization strategy, aiming to promote the high-quality development of preschool education with artificial intelligence as the "key variable".
- Through the combination of online and offline "teaching and research + support + guidance", the precise empowerment of provincial and municipal practice parks.
- The key role of multi-party synergy in preschool education, with the help of digital tools and technologies, is to comprehensively improve the quality of regional preschool education by innovative means.
- The introduction of advanced digital and intellectual means has improved the quality of preschool education, showing a new picture of shared, progressive and win-win early childhood education.
- Education should fit the law of children's brain and intellectual development, adapt to the needs of children's growth, and implement more flexible and personalized teaching with the help of digital intelligence technology to support young children's all-round growth.
- It is necessary to be alert to the risks that AI may bring such as technology endogenous, education practice and subject development, and proposes that a healthy AI education ecology should be jointly constructed on the basis of ethical principles, normative indicators as standards and international collaboration as a way.
- Kindergarten teachers need to realize the dynamic progression of literacy from basic tool use to ethical reflection, pedagogical innovation and professional development as the core.

# Principals' Forum for the Quality Development of Schools

This forum brings together global experiences in educational practice, creating a platform for renowned principals to exchange ideas and share achievements, thereby injecting new momentum into the high-quality development of schools in the new era. Participants will take this forum as an opportunity to deepen the practice of digital transformation in education, ensuring that technology truly serves the essence of education and contributes to the cultivation of high-quality talents that are adaptable to the future.


**Photo of Principals' Forum for the Quality Development of Schools**

**SPEAKERS**

**Ms. LI Youyi**, Member of the 13th CPPCC; Former Principal of Beijing No.12 Middle School Education Group; Chairman of the School Alliance of Educational Digitalization

**Mr. NIE Xiaolin**, Co-founder, Board Member and Senior VP, iFLYTEK Co., Ltd., China

**Prof. GUO Shaoqing**, Director, Strategic Research Base of Education Informatization (Northwest), Ministry of Education, P.R. China; Dean of the College of Education Technology, Northwest Normal University

**Mr. MAO Daosheng**, Vice President, Chengdu Institute of Educational Sciences; Senior Teacher and Chengdu Special-Class Teacher

**Prof. Chrystalla Mouza**, Dean, College of Education, Professor of Curriculum and Instruction, University of Illinois, Urbana-Champaign

**Ms. XU Hui**, Principal, The No.1 Affiliated Middle School of Central China Normal University

**Mr. GOU Wenbin**, Principal, Mianyang High School, Sichuan Province

**Ms. FENG Lu**, Chairman, Hefei Normal University Affiliated Primary School Education Group

**Mr. GONG Weidong**, Principal, Shenzhen Welkin School

**Ms. LI Hua**, Principal of Shuren Jingrui Primary School in Shapingba District, Chongqing

**Ms. Guo Hongxia**, Principal, Haidian No.2 Experimental Primary School, Beijing

**Mr. ZHOU Wenmei**, Principal, Changjun Foreign Language Education Group

**Mr. YANG Minghuan**, Director, Digital Education Department at the Guangdong Provincial Institute of Educational Technology; Host, Guangdong Province Famous Teacher Studio

**Ms. WU Yingming**, Principal, Hefei No. 1 Middle School

**Ms. ZHANG Hua**, Vice Dean, the School of Primary Education, Changsha Normal University; Principal of the Affiliated Primary School

**Mr. WANG Xiao**, Principal, The Third Primary School in Yumin County, Tacheng Region, Xinjiang Autonomous Region

## MODERATORS

**Prof. WANG Zhuzhu**, Expert, Smart Education Demonstration Zone Project, Ministry of Education, China

**Ms. HUANG Lulu**, Editor, Special Issue on Informatization and Smart Education, China Education Daily

In the opening remarks, **Ms. LI Youyi**, Member of the 13th CPPCC; Former Principal of Beijing No.12 Middle School Education Group; Chairman of the School Alliance of Educational Digitalization, stated that the deep integration of new technologies and education has become a core issue in the global digital transformation of education. Artificial intelligence is profoundly impacting the entire process of education and teaching. As leaders in school development, principals must not only keenly grasp technological opportunities to promote educational integration and innovation but also recognize the "double-edged sword" effect of technology. They should wield these tools with the professional judgment of educators, always upholding the core principle that "technology serves the true value of education."

**Mr. NIE Xiaolin**, Co-founder, Board Member and Senior VP, iFLYTEK Co., Ltd., stated that generative artificial intelligence is reshaping the global education ecosystem. iFlytek is dedicated to working alongside frontline educators, acting as a “practitioner” of educational digital transformation, an “enabler” for teachers and principals, a “promoter” of educational equity, and a “connector” within the Smart Education ecosystem. The company aims to provide schools with effective and user-friendly technologies and products that truly address the pain points in education and teaching, helping teachers liberate productivity, assisting

principals in making informed decisions through data insights, and promoting the sharing of high-quality educational resources across geographical divides to co-build and share a prosperous educational application ecosystem.

The opening remarks and keynote speech were moderated by **Prof. WANG Zhuzhu**, Expert, Smart Education Demonstration Zone Project, Ministry of Education, China.

## Keynote Speech: Frontier Exploration Outlines a New Perspective on Smart Education

**Prof. GUO Shaoqing**, Director, Strategic Research Base of Education Informatization (Northwest); Dean of the College of Education Technology, Northwest Normal University, delivered a special report titled " AI-Driven Curriculum Logic Restructuring" He pointed out that AI is bringing multifaceted changes to curriculum elements: educational agents have become a new element, content is becoming dynamic, personalized, and multimodal, learning environments are evolving into autonomous, interactive, immersive intelligent centers, and evaluation methods and learning approaches are also changing accordingly. At the same time, AI is driving a shift in curriculum logic from a linear structure to a hybrid structure, with curricula evolving towards learning service functions.

**Mr. MAO Daosheng**, Vice President, Chengdu Institute of Educational Sciences; Senior Teacher and Chengdu Special-Class Teacher, focused on the "Innovative Development of the Dual-Teacher Teaching Model in Basic Education during the Digital Intelligence Era." He introduced seven typical models of Chengdu's "Dual-Teacher Teaching" and emphasized their innovative value in building teaching communities, empowering teachers' professional development, promoting educational governance and institutional innovation, and advancing supply-side reforms in education.

**Prof. Chrystalla Mouza**, Dean, College of Education, University of Illinois, Urbana-Champaign, shared a presentation titled " Designing Research-Based Professional Development Opportunities for Teaching and Learning Computer Science in Schools" She emphasized that summer programs at schools impact the learning of computer science content, curriculum selection, and implementation by providing resources and examples, helping teachers shape their approaches and teaching strategies for implementing critical thinking instruction.



## Principal's Report: Decoding the Path to High-Quality Development through Frontline Practice

**Ms. XU Hui**, Principal, The No.1 Affiliated Middle School of Central China Normal University, shared the school's exploration and practice in three areas related to the cultivation of outstanding innovative talents in the intelligent era: AI+ curriculum (a three-tier system), AI+ teaching (human-machine collaboration), and AI+ learning (data-driven personalization). She emphasized that in the intelligent era, outstanding innovative talents are no longer limited to being mere carriers of knowledge and skills but are more about a deep understanding of knowledge and the ability to innovate for the future.

**Mr. GOU Wenbin**, Principal, Mianyang High School, Sichuan Province, shared his thoughts and practices on the theme of " Algorithms vs Humanistic Core: Adaptation and Preservation in AI-Era Education" He mentioned that the school has built new platforms, launched new courses, and implemented new teaching methods through human-machine collaboration, empowering the entire educational process: enhancing management efficiency, shifting from "human running" to "data running"; upgrading teaching and learning, moving from "experience-based teaching" to "precision teaching"; and enabling scientific evaluation, transitioning from "partial understanding" to "holistic profiling."

**Ms. FENG Lu**, Chairman, Hefei Normal University Affiliated Primary School Education Group, introduced the school's new exploration of precision education driven by data. She mentioned that the school utilizes artificial intelligence technology to integrate educational and teaching data, seamlessly collecting information from various educational activities. This process automatically generates rich, clear, and multi-dimensional data resources, enabling timely analysis, diagnosis, and recommendations to support the comprehensive development of students, thereby constructing an "ecosystem" for education and teaching based on data-driven precision education.

**Mr. GONG Weidong**, Principal, Shenzhen Welkin School, shared the school's experience in promoting construction and development through enhancing the digital leadership of school principals. He introduced that the digital leadership of primary and secondary school principals includes the ability to perceive digital technology, innovate tool application, plan digital strategies, design products and environments, promote digital actions, and iterate innovative practices. The pathways to enhance these capabilities include "learning by doing," "building communities," and "summarizing and refining to form standards."


**Ms. LI Hua**, Principal of Shuren Jingrui Primary School introduced the school's practices in four areas: foundation building, teacher strengthening, education enhancement, and evaluation reform. These practices include: creating AI intelligent systems and immersive learning environments, establishing a comprehensive education network; leading and conducting "five-level" training activities to continuously improve capabilities; fostering diverse interactions among teachers and students, integrating generative AI tools with teaching platforms to achieve personalized design and application of tools; and developing a curriculum evaluation based on student core competency development, implementing "data safeguarding and five-integrated education" assessment.

**Ms. Guo Hongxia**, Principal, Haidian No.2 Experimental Primary School, Beijing, shared the development process of the school's sustainable intelligent learning ecosystem. Centered on "creativity and happiness," the school has built a smart learning environment consisting of "endpoints + platforms + resources + spaces." They have developed an AI-empowered "staged progressive" smart curriculum system, innovated the "three chains and five levels" interactive teaching model, established a smart evaluation navigation system for "precise empowerment and growth," and created a "emotional intelligence management" system that facilitates human-machine collaboration, achieving significant results and establishing itself as a distinctive smart school.

**Mr. ZHOU Wenmei**, Principal, Changjun Foreign Language Education Group, shared practices on enhancing the digital literacy of teachers and students through the empowerment of artificial intelligence. She mentioned that the school focuses on improving the digital self-efficacy of teachers and students and advances smart education in three phases. This includes building a "three categories and three levels" teacher training system, promoting smart classrooms, transforming learning methods, and constructing a smart ecosystem, with significant results achieved.




## Panel Discussion: Focus on Building Key Competencies in the Intelligent Era

The Panel Discussion focused on the theme of " Practice and Thinking of Artificial Intelligence Boosting the Construction and Development of Smart Schools" engaging in an in-depth dialogue around "Building Key Competencies for Students and Teachers in the Age of Intelligence". **Mr. YANG Minghuan**, Director, Digital Education Department at the Guangdong Provincial Institute of Educational Technology; Host, Guangdong Province Famous Teacher Studio; **Ms. WU Yingming**, Principal, Hefei No. 1 Middle School; **Ms. ZHANG Hua**, Vice Dean, the School of Primary Education, Changsha Normal University; Principal of the Affiliated Primary School; and **Mr. WANG Xiao**, Principal, The Third Primary School in Yumin County, Tacheng Region, Xinjiang, shared their practical insights. The session was moderated by **Ms. HUANG Lulu**, Editor, Special Issue on Informatization and Smart Education, China Education Daily.


Photo of Panel Discussion

**Ms. WU Yingming** proposed that in the context of artificial intelligence, teachers need to focus on cultivating four core competencies: "aesthetic appreciation, cultural understanding, scientific critical thinking, and value judgment," while firmly adhering to the essence of the subject and the original intention of cultivating students.

**Mr. YANG Minghuan** offers suggestions from four dimensions: students should develop a threefold ability to "understand principles, practice thinking, and recognize boundaries"; teachers should act as "designers, conductors, and gatekeepers"; in terms of practical pathways, it is necessary to let competencies grow in real contexts, integrate AI thinking into teaching across various subjects, and provide teachers with a scaffolding of AI tools.

**Ms. ZHANG Hua** believes that for students, schools should combine national curricula with project-based courses and engage them through activities to stimulate their interest. This approach helps guide students to adopt a calm attitude toward technology, thereby enhancing their digital capabilities and innovative qualities through practice. For teachers, it is important to promote the active embrace of technology by providing training in digital teaching skills, assessing their technological application abilities, organizing teaching competitions, and implementing incentive mechanisms.

**Mr. WANG Xiao** believes that in the AI era, it is necessary to dispel the misconception that "AI is all-powerful" and to guide students to become creators of technology rather than passive users. At the same time, it should be clarified that AI empowers teachers rather than replaces them. The school has effectively enhanced the digital literacy of teachers and students by collaborating with enterprises to build an AI curriculum system and conducting project-based learning that incorporates local characteristics.

*The Principals' Forum for the Quality Development of Schools was organized by the School Alliance of Educational Digitalization, Smart Learning Institute at BNU, iFLYTEK Co., Ltd., China.

## Key Takeaways

- Artificial intelligence is profoundly impacting the entire process of education and teaching. As leaders in the development of their schools, principals must not only be keenly aware of technological opportunities but also steadfastly uphold the core principle that "technology serves the true value of education."
- AI is driving the transition of course logic from a linear structure to a hybrid structure, evolving the curriculum towards a learning service function.
- In the intelligent era, top innovative talents are no longer limited to being carriers of knowledge and skills; they increasingly embody a deep understanding of knowledge and a capacity for future creation.
- Generative AI tools are integrated with the teaching platform to realize the personalized design and application of the tools; and the "data escort - five education fusion" curriculum evaluation is constructed and implemented with the development of students' core qualities as the guide.
- AI thinking is integrated into the teaching of various disciplines, and AI tools "scaffolding" is built for teachers.
- In the era of AI, we need to eliminate the cognitive misunderstanding of "AI is omnipotent" and guide students to become creators rather than passive users of technology.

# Parallel Session: Towards Smart Education Ecosystems

The Parallel Session: Towards Smart Education Ecosystems brought together policymakers, experts, scholars, and industry leaders from universities, research institutions, and international organizations worldwide. Discussions focused on key issues including emerging stages and pathways toward smart education, the development of regional smart education ecosystems, the role of artificial intelligence in regional educational transformation, educational planning and governance in the intelligent era, the digital transformation of schools and education systems, education data security frameworks, and collaborative pathways toward Education 2050.


**Group Photo of Parallel Session: Towards Smart Education Ecosystems**

**SPEAKERS**

**Mr. REN Changshan**, Director of the Education Informatization and Cybersecurity Division, Department of Science, Technology, and Informatization, Ministry of Education, P.R. China

**Dr. Muriel Poisson**, Knowledge Management and Mobilization Lead, UNESCO-IIEP

**Prof. Diana Laurillard**, Emeritus Professor of Learning with Digital Technologies, University College London, UK

**Mr. LI Hao**, Director of the Shandong Provincial Center for Educational Technology, China

**Prof. Tran Thanh Nam**, Vice-Rector, University of Education, VNU Hanoi, Vietnam

**Prof. Nancy Law**, Founding Director, Centre for Information Technology in Education (CITE), The University of Hong Kong, China

**Mr. ZHOU Jiafeng**, Vice President of iFLYTEK Co., Ltd.

**Prof. HU Xiang'en**, The Hong Kong Polytechnic University, Hong Kong, China

**Prof. LI Yanyan**, Co-Director, Knowledge Modeling and Analysis Laboratory, National Engineering Research Center of Cyberlearning and Intelligent Technology, China

**Mr. GONG Weidong**, Principal of Shenzhen Welkin School

**Ms. PAN Beilei**, Deputy Director of the Education Bureau of Minhang District, Shanghai

**Mr. MA Jianwei**, Deputy Director, Education Bureau of Hexi District, Tianjin, China

**Ms. NIU Wei**, Deputy Director, Education Bureau of Karamay City, China

**Mr. LU Jinsong**, Vice-Director, Education Bureau of Yichang City, China

**Ms. DUAN Yuanli**, Vice-Director, Education Bureau of Bengbu City, China

**Mr. CAI Jian'an**, Chief Supervisor, Education Bureau of Guangzhou City, China

**Mr. GUO Xiaming**, Guo Xiaming, Director, Education Bureau of Jinjiang District, Chengdu City, China

**Ms. HAN Dongxue**, Director, Education Bureau of Da Dong District, Shenyang City, China

**Mr. YE Yuxin**, Vice-Principal, Teacher Training School of Gulou District, Fuzhou City, China

**Mr. ZHOU Qiang**, Director, Education and Sports Bureau of Shizhong District, Zaozhuang City, China

**Mr. YE Yixiong**, Director, Education and Sports Bureau of Licheng District, Quanzhou City, China

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**MODERATORS**

**Mr. YANG Junfeng**, Vice Director, Educational Informatization Strategy Research Base (Beijing), Ministry of Education, P.R. China

**Prof. HAO Jianjiang**, associate professor of the School of Educational Technology, Northwest Normal University

**Ms. MIAO Yaqin**, Former Deputy Director, Bureau of Education of Changsha City, Hunan Province, China

In the opening speech, **Mr. REN Changshan**, Department of Science, Technology and Informatization, Ministry of Education, P.R. China, stated that AI is profoundly transforming the ways knowledge is generated and disseminated, the paradigms of scientific research, and the models of education organization and evaluation, and thus becoming a crucial engine for educational reform. China has launched the National Educational Digitalization Strategy Initiative, adhering to the "3C" philosophy of "Connection, Content, and Cooperation," and advancing the "3I" approach of "Integration, Intelligence, and Internationalization." It has established the world's largest digital education platform, propelling China into a new era of smart education. He emphasized that China released the White Paper on Smart Education, and designated 2025 as the "Inaugural Year of Smart Education." The initiative aims to anchor the "Four Futures" integrate intelligent technologies into the entire teaching and learning process, pioneer new pathways for high-quality educational development, and collaboratively build a new global ecosystem for smart education.

## Keynote Speech

During the keynote speech session, **Dr. Muriel Poisson**, Knowledge Management and Mobilization Lead of UNESCO IIEP, highlighted in her presentation titled Towards Smart Education Systems: Focus on Educational Planning and Management that AI offers immense potential for educational planning and management and aids in decision-making, resource allocation, and trend prediction. She proposed the four pillars of digital transformation of education: governance and regulation, infrastructure development, integration of teaching systems, and support for educational planning and management. She emphasized the imperative for addressing challenges such as the digital divide, data privacy, and algorithmic bias, enhancing transparency and accountability, and driving fair, transparent, and sustainable development of smart education through international cooperation.

**Prof. Diana Laurillard**, Emeritus Professor of Learning with Digital Technologies at UCL, stated in her presentation titled From Human Learning via AI to Achieving the UN SDGs that smart education is driven by technological innovation. The CoMOOC model facilitates global professional collaboration through online cooperation and video case studies, enabling experience exchanges and solution development. She emphasized that teachers can utilize AI platforms to create and share educational resources, while students' interaction records with AI can be submitted to teachers for evaluation, which forms a closed loop of "design—learn—feedback—optimize." Teachers should focus on guiding students to think, experiment, debate, create, and reflect, and ensure the continuity of the learning cycle. It is essential to develop a stable online collaborative environment with an iterative feedback mechanism.

**Mr. LI Hao**, Director of the Shandong Provincial Center for Educational Technology, emphasized in his presentation titled AI-Enabled Digital Transformation in Shandong's Education Practice that Shandong regards AI as the key driver and the primary growth engine in its digital transformation of education. Through top-level design, increased investment, and the development of smart education platforms and demonstration zones, Shandong is driving the integration of AI into teaching, management, and evaluation. He pointed out that in response to challenges such as insufficient teacher training, Shandong is establishing a systematic advancement mechanism and implementing ten major initiatives for AI education in primary and secondary schools. These efforts aim to build a multi-tiered AI education ecosystem, and promote educational equity, and enhance quality.

**Prof. Tran Thanh Nam**, Vice-Rector of the University of Education, VNU Hanoi, Vietnam, shared Vietnam's national digital education strategy in his presentation titled Vietnam's National Digital Education Strategy: Charting the Future of Learning towards 2030, which aims to build a learning society by 2030. He pointed out that the strategy focuses on five key pillars: strengthening digital infrastructure and accessibility, developing digital competencies for teachers and students, building a high-quality digital resource repository, improving digital governance and oversight of AI ethics, and promoting collaborative applications of AI in Vietnamese language education. He emphasized that the application of technology must be human-centered and effectively advance educational equity and lifelong learning.

**Prof. Nancy Law**, Founding Director of the Centre for Information Technology in Education (CITE), University of Hong Kong, delivered a presentation titled Smart Education: Is It About Humans or Machines? What is a Smart Ecosystem? Exploring whether smart education should prioritize a "human-centered" approach or a "machine-centric" one. She pointed out that AI should not replace human intelligence, but rather serve as a "trustworthy partner" to empower teachers and students. She emphasized the need to bridge the digital divide, enhance digital literacy, and build a learner-centered smart education ecosystem that fosters higher-order thinking and collaboration through human-AI synergy, interdisciplinary cooperation, and co-creation.

**Mr. ZHOU Jiafeng**, Vice President of iFLYTEK Co., Ltd., emphasized in his speech titled Co-Nurturing with AI to Ignite Spark in Every Child that AI should serve as a super assistant for teachers and an AI learning companion for students to achieve symbiotic collaboration. He pointed out that AI can effectively reduce the burden on teachers by assisting with lesson preparation, teaching, homework grading, and classroom analysis, and empower them to transition from knowledge transmitters to mentors for student growth. He emphasized that for students, AI can provide personalized learning paths, intelligent Q&A, psychological support, and dynamic growth records, which can truly achieve tailored education and jointly unlock every child's potential.

**Prof. HU Xiang'en**, Chair Professor of Learning Sciences and Technologies at The Hong Kong Polytechnic University, delivered a presentation titled Educators Work Together to Create an Inclusive and Impactful AI-Powered Future Vision. He believes that AI is advancing rapidly yet remains shrouded in "mystery" and carries potential risks, such as generating "hallucinations" and misleading information. He emphasized that educators should lead the transformation, as AI cannot replace the emotional connection and empathy inherent to human teachers. He pointed out that the key to education lies in harnessing the potential of AI while remaining vigilant against its misuse, cultivating students' critical thinking, and transforming the "limitations" of AI into "educational opportunities" that foster deep learning and the growth of human wisdom.




## Release Session

At the release session, **Prof. LI Yanyan**, Professor of the Faculty of Education, Beijing Normal University, and Head of the major project "Key Technologies and Application Demonstration of Intelligent Connected Computing for Learning Environments" under the 2030 National Key R&D Program — "New Generation AI," unveiled the Vertical Large Model-based Intelligent Agent Platform for Education and Its Application Scenarios. Additionally, the initiation ceremony for the platform's application demonstration was held.


**Photo of Intelligent Agent Empowerment Education and Teaching Application Demonstration Action**

This project is a national major special project on the new generation of artificial intelligence (application-oriented teacher training) commissioned and recommended by the Ministry of Education and established by the Ministry of Science and Technology. The core outcome is the "Jingxiaoduo" educational intelligent agent platform. The platform conducts vertical training based on the full-version DeepSeek and Yuanjing large model, utilizing input from educational datasets, and possesses four core capabilities: knowledge point recognition, knowledge question answering, and more. It covers various scenarios including autonomous learning, video learning, instructional design, and group learning, specifically targeting the primary and secondary education sectors with intelligent agents for mathematics and interdisciplinary lesson preparation, supporting grades from elementary to high school. The platform has completed internal testing and will be implemented and iteratively optimized in cooperating regions.

**Mr. GONG Weidong**, Principal of Shenzhen Welkin School, introduced the Guidelines for the Construction of Welkin Schools for Primary and Secondary Schools (Draft) in the form of a “digital avatar” and launched the release ceremony.


**Photo of Guidelines for the Construction of Welkin School s for Primary and Secondary Schools (Draft)**

The release of this Guidelines is based on the "Outline for Building a Strong Education Country" and has been prepared by Shenzhen Welkin School in conjunction with practical experiences from 2021 to 2025, receiving support from various parties, including collaborative drafting by institutions such as Beijing Normal University. The guide includes frameworks for a digital foundation, physical spaces, and 1+N applications, adopting the teaching paradigm of "one domain, two companions, three similarities." The application layer covers five types of intelligent assistance scenarios and supports multi-terminal access. This guide provides scientific and actionable guidance for the construction of Welkin Schools in primary and secondary education and is an important action for implementing the outline. We welcome more institutions to participate in the research.

## Invited Speech

During the invited speech session, the guests shared practices of digital transformation, including the empowerment of education through regional artificial intelligence, the enhancement of teachers' digital literacy, the construction of AI curricula, and the integration of classroom reforms. They showcased various pathways and innovative explorations across different regions to promote educational equity and improve teaching quality through smart education.

**Ms. PAN Beilei**, the Deputy Director of the Minhang District Education Bureau in Shanghai, stated that Minhang Education focuses on the pain points of adolescent mental health and has established the "Minzhi Xinyu" AI counseling system. This system addresses challenges such as resource mismatch, high thresholds for seeking help, and conflicts between personalization and scalability. It improves the accuracy of psychological screening and the coverage of counseling services, achieving dynamic early warning and intervention for mental health crises, thus supporting students' healthy and happy growth.

**Mr. MA Jianwei**, Deputy Director, Education Bureau of Hexi District, Tianjin, shares its practices in the digital transformation of education. Centered around “AI Nurturing the West Bank,” it has established the “One-Three-Seven” model and a closed-loop system of AI + seven major projects, aiming to create a digital intelligence foundation and intelligent entities in education. This initiative empowers scenarios such as teaching, learning, and educational research, promoting high-quality development in education. In the future, it will advance three major directions, including smart ideological and political education.

**Ms. NIU Wei**, Deputy Director, Education Bureau of Karamay City: Karamay has undergone three phases of development to promote the digital transformation of education. We are building a foundational platform, providing high-quality resources, and creating exemplary experiences in three stages. We aim to break down various barriers by implementing the "1+10+N" action plan, establishing cloud-based schools, and constructing a supportive system of "AI large models + computing power + teachers" to enhance the digital literacy of both teachers and students and promote the sharing of high-quality educational resources.

**Mr. LU Jinsong**, Vice-Director, Education Bureau of Yichang City: Yichang uses the "1+2" national experimental program as a starting point to explore the path of digital empowerment for future schools and to build a multidimensional digital education system. Through AI + teaching, we connect resources and establish educational alliances; through AI + learning, we generate growth records and provide intelligent tutoring; through AI + research, we cultivate teachers; through AI + supervision, we ensure the safety of canteens; and through AI + security, we strengthen the campus defense. This promotes high-quality, balanced, and modern education.




**Ms. DUAN Yuanli**, Vice-Director, Education Bureau of Bengbu City: As one of the only two cities in the country designated as a "Double Zone and One Point," Bengbu is advancing the digital transformation of education with the "1+3+6" plan. This initiative focuses on three main scenarios, including classroom teaching, and implements six actions, with a core emphasis on data-driven, scalable, personalized education. Through four major innovations—teaching, teacher training, governance mechanisms, and resource supply—we aim to reduce the burden on education and enhance its quality, promoting balanced development of high-quality education, with significant results achieved.

**Mr. CAI Jian'an**, Chief Supervisor, Education Bureau of Guangzhou City: In 2022, Guangzhou achieved full coverage of AI courses in over 1,500 schools at the compulsory education stage, and this case has been included in the "China Smart Education White Paper." We have established a "1+8+N" promotion model, which includes intelligent platforms, tiered curricula, teacher training, and more, forming an ecosystem of "government-industry-university-research."

**Mr. GUO Xiaming**, Director, Education Bureau of Jinjiang District, Chengdu City: Jinjiang District of Chengdu promotes the deep integration of AI and education by focusing on enhancing teacher abilities, restructuring curricula, and reshaping classrooms. Through initiatives such as driving practice and integrating research and training, we aim to improve teachers' abilities to apply AI, independently develop comprehensive learning curriculum resources, promote the integration of teaching preparation, evaluation, and learning in classrooms, and create a new ecosystem of human-machine collaborative education.

**Ms. HAN Dongxue**, Director, Education Bureau of Da Dong District, Shenyang City: Shaodong District is leading the way in "smart education and a brilliant future." We are promoting the digital transformation of education from four dimensions: top-level design (the "1+1+3" framework), the construction of a digital foundation (a combination of software and hardware), deep integration in the classroom (a three-stage model and personalized learning), and smart governance (AI-enabled supervision and research).




**Mr. YE Yuxin**, Vice-Principal, Teacher Training School of Gulou District, Fuzhou City: Fuzhou Gu Lou District focuses on "leveraging technology to enhance educational warmth and effectiveness" as its core objective. It has established a "1+2+N" smart education ecosystem, creating a digital foundation and two major platforms. This initiative has enabled the implementation of smart classrooms and various scenarios of application, achieving full-process human-machine collaboration in preparation, teaching, assessment, and research. In the future, we will tackle the three significant challenges of technology integration, data security, and digital literacy, while continuously exploring new pathways for smart education.

**Mr. ZHOU Qiang**, Director, Education and Sports Bureau of Shizhong District, Zaozhuang City: Shizhong District in Zaozhuang, Shandong Province is promoting rural education revitalization through smart education. This involves coordinating top-level design to advance urban-rural integration, strengthening financial investment to build a solid digital foundation, focusing on teacher training to enhance digital literacy, and deepening precise education to guide the simultaneous development of moral, intellectual, physical, aesthetic, and labor education. The practical results have been significant, with the overall improvement of both teacher and student competencies and educational quality, demonstrating a leading role in showcasing effective practices.

**Mr. YE Yixiong**, Director, Education and Sports Bureau of Licheng District, Quanzhou City: Quanzhou's Licheng District focuses on the transformation to smart education, leading to changes in various aspects such as the role of teachers and teaching methods. There is a need to cultivate core competencies like data interpretation. Facing challenges in capability matching and resource conversion, the region empowers teachers to adapt to this transformation through initiatives like platform building, guidance, and support, while upholding the original intention of education and making good use of artificial intelligence.


*The Parallel Session: Towards Smart Education Ecosystems was jointly organized by the Educational Informatization Strategy Research Bases (Beijing, Central China, and Northwest China) under the Ministry of Education and iFLYTEK Co., Ltd.


This parallel session was jointly moderated by Mr. YANG Junfeng, Vice Director, Educational Informatization Strategy Research Base (Beijing), Ministry of Education, P.R. China; Prof. HAO Jianjiang, associate professor of the School of Educational Technology, Northwest Normal University, and Ms. MIAO Yaqin, Former Deputy Director, Bureau of Education of Changsha City, Hunan Province, China.

## Key Takeaways

- The year 2025 will be regarded as the "Year of Smart Education," which will anchor on the "Four Futures." It aims to integrate intelligent technologies into the entire process of education and teaching, paving new paths for high-quality educational development and collaboratively building a new global ecosystem for smart education.
- Artificial intelligence offers great potential for educational planning and management, assisting in decision-making, resource allocation, and trend forecasting.
- The four pillars of digital transformation in education are: governance and regulation, infrastructure development, integration of teaching systems, and support for educational planning and management.
- Teachers can use AI platforms to create and share teaching resources, while students' interactions with AI can be submitted for teacher evaluation, forming a closed loop of "design—learn—feedback—optimize."
- Create a multi-level AI education ecosystem to promote educational equity and quality improvement.
- The application of technology must be people-oriented and effectively promote educational equity and lifelong learning.
- We need to bridge the digital divide, enhance digital literacy, and build a learner-centered Smart Education ecosystem that promotes higher-order thinking and collaboration through human-machine collaboration, interdisciplinary cooperation, and co-creation.
- AI can effectively reduce the burden on teachers by assisting with lesson preparation, teaching, grading assignments, and classroom analysis, enabling teachers to transform from knowledge transmitters into mentors for student growth.
- Educators are the leaders of transformation, and AI cannot replace the emotional connection and empathy that teachers provide. The key to education lies in effectively harnessing the potential of AI while remaining vigilant against its misuse, fostering students' critical thinking, and turning AI's "limitations" into "educational opportunities" that promote deep learning and the growth of human wisdom.

# Parallel Session:
# Smart Learning Environments: Policy and Practice

In the context of accelerating digital transformation and the growing application of artificial intelligence in education, the development of smart learning environments has become a key policy priority for education systems worldwide. This parallel session convenes policymakers, experts, and frontline practitioners from national and international education authorities to examine policy frameworks and implementation practices related to smart campuses. The discussions address smart learning infrastructure, AI-enabled teaching scenarios, the application of large-scale models and intelligent agents, data-driven campus governance, intelligent safety systems, and standards-based, ecosystem-oriented collaboration, with the aim of supporting inclusive, secure, and sustainable education development.

Photos of Parallel Session on Smart Learning Environments: Policy and Practice

**SPEAKERS**

**Mr. LI Ying,** Secretary General, China Educational Equipment Industry Association (CEEIA), P.R.China

**H.E. Dr. Ali Haidar Ahmed,** Minister of Higher Education, Labour and Skills Development, Maldives

**Mr. ZENG Dehua,** Deputy Director, Center for Education Management Information, Ministry of Education, P.R. China

**Mr. LV Hang,** Director, Operations and Support Division, Beijing Digital Education Center

**Prof. Said Benamar,** Director of Executive Education, International University of Casablanca, Morocco

**Mr. MA Hao,** Director of the Computing Center, Peking University

**Prof. Carolyn Rosé,** Professor of Language Technologies and Human-Computer Interaction, Human-Computer Interaction Institute, Carnegie Mellon University, America

**Mr. YAO Ziming,** Engineer at the National Engineering Research Center of Cyberlearning and Intelligent Technology

**Mr. Fan Yue,** Vice General Manager of China Unicom (Beijing) Industrial Internet Co., Ltd.

**Mr. Qiao Yue,** General Manager of the Solutions Center, UNIS MOEDU Technology Co., Ltd.

**Mr. WANG Xiangdong,** Vice President of Yuanli Technology Group

**Mr. LIN Xueyan,** General Manager, Beijing Certificate Authority Co., Ltd.

**Mr. LI Yongtao,** Director of Ningxia Education Information Technology Center

**Ms. XU Yang,** Director of Hongkou Education Information Center, Shanghai

**Prof. Sunungurai Dominica Chingarande,** President of the African Women's University in Zimbabwe

**Ms. ZHANG Liping,** Deputy Director, Educational Technology and Equipment Research and Guidance Center, Heilongjiang Institute of Teacher Development

**Mr. LEI Mingguang,** Education and Sports Bureau, Feicheng

**Prof. AbdulRasheed NaAllah,** Pro-Chancellor, Abdulrasaq Abubakar Toyin University, Ganmo, Nigeria

**Mr. SONG Tao**, Principal, Affiliated Primary School of Central China Normal University

**Mr. ZHANG Yi,** Director of Education Technology Equipment Management Center, Chengdu

**Mr. YANG Weiguo,** Deputy Director of the Information Center, Tanghu Middle School

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**MODERATORS**

**Mr. SUN Qiurui,** Deputy Director, Information Network Center of Beijing Normal University

**Mr. FU Gang,** Deputy Editor-in-Chief of China Information Technology Education Journal

**Prof. WANG Yunwu,** Professor of Smart Education College, Jiangsu Normal University

## Co-Creating a New Vision for Smart Campus Development

In the opening speech, **Mr. LI Ying,** Secretary General, China Educational Equipment Industry Association (CEEIA), stated that smart campus governance should be "based on standards and guided by ethics," and that the direction of equipment evolution should shift from "functional satisfaction" to "empowering education." He pointed out that future educational equipment should not stop at the improvement of tool attributes; instead, it should become a concrete carrier of educational ideas and a deep promoter of educational transformation, achieving a return from a technology-centric approach to an education-centric approach.

**H.E. Dr. Ali Haidar Ahmed,** Minister of Higher Education, Labour and Skills Development, Maldives, mentioned that smart campuses are at the core of the digital transformation of education. He emphasized that it is not only an upgrade of infrastructure but also a systematic strategic planning initiative. He stated that the construction of smart campuses should be student-centered, deeply integrating digital architecture, interconnectivity, and adaptive learning environments to establish a data-driven modern governance model.

**Mr. ZENG Dehua,** Deputy Director, Center for Education Management Information, Ministry of Education, emphasized that smart campuses are the core vehicle for the digital transformation of education. He stated that efforts must be coordinated through "application revolution, governance innovation, and equipment upgrading" to create a new pattern of systematic development. He expressed the need to adhere to a student-centered approach driven by application, deepen the integration of digital intelligence, and thoroughly incorporate technologies such as artificial intelligence into the entire process of teaching, management, and evaluation.

## Advancing AI-Empowered Educational Integration and Innovation

During the keynote speech session, **Mr. LV Hang,** Director of Operations and Support Division, Beijing Digital Education Center, introduced the approaches and experiences of Beijing in promoting a systematic layout for artificial intelligence in the education sector. He pointed out that a top-level design framework has been established, covering four layers—"policy norms, application scenarios, educational carriers, and public support"—with 16 specific measures. He emphasized the promotion of educational resource integration and the implementation of intelligent applications through the construction of public capability platforms, including high-quality datasets, subject knowledge graphs, education-specific large models, etc.

**Prof. Said Benamar,** director of Executive Education, International University of Casablanca, Morocco, explored how artificial intelligence can empower the construction of intelligent campuses in Africa from the perspective of learning sciences. He believes that AI is not a threat but a powerful tool that can amplify human creativity. Its core value lies in the ability to design personalized and contextualized teaching methods and curricula based on principles from neuroscience, educational psychology, and other learning sciences, effectively transforming knowledge into long-term memory and practical skills, thereby significantly enhancing learning outcomes.

**Mr. MA Hao**, Director of the Computing Center, Peking University, shared the practical paths for promoting educational development through artificial intelligence applications at Peking University. The university views the development of AI as a key driving force for educational reform. Through systematic measures such as establishing a Digital Intelligence Education Alliance, hosting innovation competitions, and releasing white papers, they are comprehensively advancing "Digital Intelligence Education." He stated that they have developed specialized AI tools covering multiple disciplines, including humanities, sciences, medicine, engineering, and law, which are deeply integrated into the entire process of teaching and research to create a new educational ecosystem.

**Prof. Carolyn Rosé,** Professor of Language Technologies and Human-Computer Interaction, Human-Computer Interaction Institute, Carnegie Mellon University, America emphasizes the use of multi-agent architectures and large models to support collaborative learning among multiple individuals, highlighting that "technology must be integrated with educational theory." High-achieving students are suitable for generating comparison scenarios on their own, while lower-level students require AI to provide comparative support.

## Consultation on the Guidelines for Digital Campus Network Design in Primary and Secondary Schools

In the Release Session segment, **Mr. YAO Ziming,** engineer at the National Engineering Laboratory for Cyberlearning and Technology Technology announced a public consultation on the " Guidelines for Digital Campus Network Design in Primary and Secondary Schools" He stated that the project aims to guide schools in scientifically planning their campus networks and assist vendors in standardizing construction plan designs. The content covers aspects such as overall architecture, key technologies, layered deployment of equipment, and security management. The solicitation of opinions has already begun, and the official release is expected this year.


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中小学数字校园网络设计规范
（工作组征询意见稿）

Design specifications for digital campus network in primary and secondary schools

202X-XX-XX 发布 202X-XX-XX 实施

中国教育装备行业协会 发布

## Diverse Innovations and Practices in Smart Campuses: From Intelligent Infrastructure and Personalized Learning to Security and Trust

In the smart campus solution segment, **Mr. Fan Yue**, Vice General Manager of China Unicom (Beijing) Industrial Internet Co., Ltd., introduced the company's exploration and practice of empowering the education industry using artificial intelligence technology. He pointed out that leveraging the overall architecture of "one network, one cloud, one platform, and multiple applications," the focus is on the entire process of teaching, learning, and management, creating an intelligent teaching system that encompasses lesson preparation before class, interactive activities during class, and assessments after class.

**Mr. Qiao Yue,** the General Manager of the Solutions Center at UNIS MOEDU Technology Co., Ltd., introduced the company's top-level design for smart campuses centered around AI. Leveraging a digital foundation that integrates specialized educational models with general large models, the company aims to build dedicated knowledge bases and intelligent platforms to drive profound changes in teaching scenarios. He stated that through typical applications such as "AI-generated feedback," "classroom intelligent analysis," and "personalized learning," the company seeks to assist teaching, learning, and management, exploring innovative pathways for empowering.

**Mr. LIN Xueyan,** General Manager of Beijing Digital Certification Co., Ltd., introduced the company's practices in the field of digital trust and data security for smart campuses. He stated that a comprehensive campus digital trust system has been established around four key dimensions: identity trustworthiness, data trustworthiness, behavioral trustworthiness, and trustworthy security infrastructure. This system has already served over 300 educational institutions across the country.

**Mr. WANG Xiangdong,** Vice President of Yuanli Technology Group, introduced the "Little Yuan Learning Machine," an ink screen learning device that focuses on handwriting, eye protection, and intelligence, catering to personalized learning for students. He stated that the device uses AI for in-depth analysis of learning situations, enabling intelligent question generation, automatic grading, error recording, and video explanations driven by large models. This creates a closed-loop learning system of "assessment—feedback—enhancement," helping students accurately identify and fill knowledge gaps, thereby improving learning efficiency.


## Construction and Application of Smart Campus: From Intelligent Platforms and Gender Equality to Regional Innovation

In the construction and application of smart campus, **Mr. LI Yongtao,** Director of Ningxia Education Information Technology Center, shared the exploration and practice of building a smart campus in Ningxia. He pointed out that Ningxia is systematically advancing the construction of a comprehensive smart education system through four major measures: strengthening top-level design, constructing an integrated digital infrastructure of "cloud-network-end," establishing an education big data center, and deepening the integrated application of artificial intelligence.

**Ms. XU Yang,** Director of Hongkou Education Information Center, shared the district's practices in promoting the deep integration of large models with education, focusing on the "educational intelligence agent" as the core. She stated that this practice aims to build a low-threshold HEADS platform, establish a four-level linkage mechanism involving "regional-school-AI specialist-teacher," and explore a new classroom paradigm based on multi-agent collaboration, systematically advancing the transformation towards educational intelligence.

**Prof. Sunungurai Dominica Chingarande,** President of the African Women's University in Zimbabwe, explored the fairness and inclusivity of artificial intelligence applications in smart campuses from a gender perspective. She pointed out significant differences between males and females in terms of technology acceptance, usage preferences, and sense of security. She emphasized that policies and technology design must address the gender gap, paying particular attention to the barriers women face in terms of technology accessibility and skills development, in order to foster a more inclusive smart education ecosystem.

**Ms. ZHANG Liping,** Deputy Director, Educational Technology and Equipment Research and Guidance Center, Heilongjiang Institute of Teacher Development, shared the practical explorations of Heilongjiang Province in promoting AI-enabled smart campuses. She introduced the experiences of building the first batch of Smart Education pilot zones and schools. Using Harbin Jihong Primary School's construction of a "digital twin ecosystem" for efficient management and Daqing Experimental High School's integration of AI to restructure project-based learning as examples, she showcased the profound changes in teaching and governance.

**Mr. LEI Mingguang,** Education and Sports Bureau of Feicheng City, introduced the city‘s practice of digital transformation in education aimed at “smart connectivity, data-driven, and high-quality balanced” development. He stated that through a three-step strategy of “building the foundation, transformation, and leapfrogging,” they are constructing a digital foundation for the region, creating a new paradigm of AI+teaching, using data to drive precise teaching and balanced allocation of resources between urban and rural areas, innovating mechanisms for improving teachers' digital literacy, and promoting inter-school research and integration of the five aspects of education.

**Prof. AbdulRasheed NaAllah,** Pro-Chancellor, Abubakar AbdulRazaq Toyin University (AATU), explores the development of artificial intelligence and education from an African perspective. He calls for AI development to integrate local African languages and cultures in order to create an AI education ecosystem rooted in Africa. At the same time, he emphasizes the need to address challenges such as policy fragmentation and data bias.

**Mr. SONG Tao,** Affiliated Primary School of Central China Normal University, shared how the school has achieved data integration and dynamic governance through the construction of a data middle platform and a "digital brain," creating a new educational infrastructure called the "Affiliated Primary School Model." He emphasized that this model is based on a school-based knowledge repository, integrating the educational wisdom of teachers, and supports diverse scenarios such as collaborative lesson preparation, one-click generation of micro-lessons, intelligent essay correction, and interdisciplinary teaching.

**Mr. ZHANG Yi,** Director of the Chengdu Education Technology Equipment Management Center, introduced Chengdu‘s exploratory practices in promoting the construction of artificial intelligence application scenarios in basic education. He believes that AI education should focus on cultivating future talents equipped with lifelong learning abilities and skills in machine collaboration, driving disruptive changes in teaching models, strengthening interdisciplinary integration, and exploring feasible practical paths through open and diverse project scenarios and continuously iterated typical cases.

**Mr. YANG Weiguo,** Deputy Director of the Information Center at Tanghu Secondary School, shared the school’s digital transformation path centered on a smart paper-and-pen system. He noted that through a “three-stage smart teaching” model and a backbone-led, technology-supported mechanism, classrooms are shifting from experience-driven to data-driven approaches. He emphasized that county-level secondary schools can begin with “small steps,” adopting low-cost, replicable solutions to improve quality and efficiency, paving a pragmatic path for digital transformation.

*The Parallel Session: Smart Learning Environments: Policy and Practice was jointly organized by the National Engineering Research Center of Cyberlearning and Intelligent Technology, Center of Information & Network Technology, Beijing Normal University, China Unicom, and co-organized by Beijing Digital Certification.


This parallel session was jointly moderated by Mr. SUN Qiurui, Deputy Director, Information Network Center of BNU; Mr. FU Gang, Deputy Editor-in-Chief of China Information Technology Education Journal and Prof. WANG Yunwu, Professor of Smart Education College, Jiangsu Normal University.

## Key Takeaways

- The governance of smart campuses should be "based on standards for foundation and guided by ethics," with the direction of equipment evolution shifting from "functional satisfaction" to "empowering education."
- Smart campuses are at the core of the digital transformation of education. They are not only an upgrade of infrastructure but also a systematic strategic plan.
- We should uphold the principle of education-centered development and application-driven strategies, deepen the integration of digital intelligence, and deeply incorporate technologies such as artificial intelligence into the entire process of teaching, management, and evaluation. This will accelerate the construction of a new teaching and learning model that is personalized and precise.
- AI is not a threat, but a powerful tool that can amplify human creativity. Its core value lies in the ability to design personalized and contextualized teaching methods and curricula based on principles from neuroscience, educational psychology, and other learning sciences.
- Through typical applications such as "AI Comment Generation," "Classroom Intelligent Analysis," and "Personalized Learning," we aim to assist teaching, learning, and administration with the help of intelligence, exploring innovative paths for integrating artificial intelligence into education.
- The development of AI should integrate indigenous African languages and cultures to establish an AI education ecosystem rooted in Africa, while also addressing challenges such as fragmented policies and data biases.

# Parallel Session: Rethinking Assessment in the Age of AI

This parallel session is jointly organized by education administrative departments from pilot regions participating in the Ministry of Education's Information Technology–Supported Comprehensive Student Quality Evaluation Pilot Program, together with experimental regions involved in the Ministry of Science and Technology's National Key R&D Program on Large-Scale Cross-Grade Tracking of Student Development. Representatives from universities, research institutions, and relevant enterprises also took part in the session.

The discussion focused on key issues including the deep integration of artificial intelligence across the full assessment cycle, the organic linkage between process-based student development records and outcome-oriented diagnostic evaluation, regionally differentiated pathways for comprehensive quality assessment, and the functional positioning of the triadic relationship among education, selection, and diagnosis. Through in-depth exchange, the session explored innovative directions for advancing comprehensive student quality evaluation in the AI era, contributing to the further deepening and enhancement of quality-oriented education.


Photo of Parallel Session: Rethinking Assessment in the Age of AI

**SPEAKERS**

**Ms. SHU Hua,** Deputy Director of the Department of Science, Technology and Informatization, Ministry of Education, P.R. China

**Prof. CHEN Li,** Faculty of Education of Beijing Normal University; Chair, MOE Expert Group on Information Technology-Supported Comprehensive Student Assessment Pilot Program, China

**Ms. SHEN Xinyi,** Deputy Director of the Education Commission of Chaoyang District, Beijing, China

**Mr. MENG Liang,** Deputy Director of Guilin Education Bureau, China

**Ms. Xu Xiaoyan,** Director of the Education Bureau of Suzhou Industrial Park, China

**Mr. LU Weichao,** Director of the Basic Education Department of Heilongjiang Provincial Department of Education, China

**Mr. ZHOU Xiaoqing,** Director of the Basic Education Department of Changsha Municipal Education Bureau, China

**Ms. HU Qunge,** Deputy Secretary of Xi'an Modern Education Information Technology Center, China

**Prof. ZHENG Qinhua,** Executive Deputy Director of the National Engineering Research Center of Cyberlearning and Intelligent Technology, China

## MODERATORS

**Prof. CHEN Li,** Faculty of Education of Beijing Normal University; Chair, MOE Expert Group on Information Technology-Supported Comprehensive Student Assessment Pilot Program, China

**Prof. LI Shuang,** Professor, Beijing Normal University, China

In the Opening Speech, **Ms. SHU Hua,** Deputy Director of the Department of Science, Technology, and Informatization, Ministry of Education of China, pointed out that under the backdrop of the accelerating evolution of artificial intelligence, promoting the deep integration of AI and educational assessment is an important measure to implement national strategy and achieve the goal of building a strong education nation. She stated that the pilot work has successfully opened a new track for digital technology-driven education assessment by constructing theoretical models, establishing technical systems, creating a national student development benchmark database, and developing region-specific solutions. She emphasized that educational assessment is a timeless aspect of education, and the exploration of AI-enabled educational assessment reform has just begun. It is crucial to stay on the right track and make long-term efforts, focusing on the "four persistences": value guidance, innovative methods, application of results, and ethical safeguards, to promote the in-depth development of education assessment reform, contribute to building a strong education nation, and provide Chinese wisdom for global educational assessment.

During the Keynote Speech, **Prof. CHEN Li,** Faculty of Education of Beijing Normal University; Chair, MOE Expert Group on Information Technology-Supported Comprehensive Student Assessment Pilot Program, who is also the head of the expert group for the Ministry of Education's "Pilot Work on Information Technology Supporting Comprehensive Quality Assessment of Students," pointed out in her report titled "Exploration of the Construction and Innovation of the 'Two-in-One' Student Comprehensive Quality Assessment System" that traditional comprehensive quality assessments have significant flaws, such as theoretical disconnection, inaccurate diagnosis, and weak objectivity. She stressed the need to establish a new evaluation system that integrates "education, diagnosis, and selection." She emphasized that the pilot project has developed a theoretical model that combines the "Five Educations" and "Core Competencies," created 11 immersive performance assessment tools, and established the world's largest and continuously tracked database and norm library for the comprehensive quality development

of Chinese students, centered around the SEED platform as an intelligent solution. She indicated that in the future, there will be a deepening of regional, systemic, and data integration, promoting the transition of assessments from experience to science and from vague to precise, while exploring a new paradigm of student comprehensive quality evaluation that has Chinese characteristics and global influence.

## Invited Speech

In the Invited Speech session, **Ms. SHEN Xinyi,** Deputy Director of the Education Commission of Chaoyang District, Beijing, introduced the district's transformative exploration from "experience-based judgment" to "data-driven" approaches, guided by a "three-year action plan." As one of the first pilot areas designated by the Ministry of Education, the SEED project has provided a scientific model and practical template for educational evaluation reform in Chaoyang District. She stated that they are exploring the use of three years of process data from over 50,000 students for the early identification of exceptional innovative talents and for the integrated construction of ideological and political education across primary, secondary, and higher education, providing precise data support for the high-quality development of regional education.

**Ms. MENG Liang,** Deputy Director of Guilin Education Bureau, shared Guilin's experience in "Comprehensive Quality Assessment of Students and the Cultivation of Outstanding Talent in Science and Technology Based on the SEED Platform." She mentioned that as a pilot area of the Ministry of Education, Guilin has conducted comprehensive assessments for primary and secondary school students using the SEED platform, covering nearly 800,000 students over three years. This has formed a comprehensive data foundation to support student growth, improve teaching, and inform educational decision-making. She emphasized that the results in the SEED assessments, particularly in dimensions like "Problem Solving and Innovation" and "Autonomous Learning," are highly correlated with students' performances in science and technology competitions, providing a scientific basis for the early identification of outstanding talent in this field.

**Ms. Xu Xiaoyan,** the deputy director of the Education Bureau of Suzhou Industrial Park, showcased the park's pioneering practice of localizing the SEED platform deployment in the country. She pointed out that the park has established a three-dimensional mechanism for "indicator mapping, data integration, and application fusion." By creating a dedicated SEED area on the regional data foundation, the park promotes an organic integration of national-level evaluations and local process evaluations. She emphasized that the park adheres to the principle of "application first," leveraging examples from Fangzhou Primary School and Jinji Lake School to explore the practical applications of SEED results in precisely identifying development shortcomings, enhancing aesthetic education, and cultivating top innovative talents.



**Mr. LU Weichao,** Director of the Basic Education Department of Heilongjiang Provincial Department of Education, shared the experience of the deep integration of the original platform in Heilongjiang Province with the SEED platform. He stated that a collaborative mechanism involving "administration, educational research, schools, and families" was established in the pilot program, ensuring a large-scale implementation covering 13 municipalities and 649,000 students. In terms of application of results, relying on the dynamic data of 647,000 students across the province, regularities revealing and attribution analysis were conducted to achieve data-driven educational decision-making. He pointed out that in the future, through deepening pilot programs, strengthening applications, and innovating methods, the goal is to promote educational governance from experience-based to data-driven within the framework of a "process-level-recognition" integrated evaluation system.

**Mr. ZHOU Xiaoqing,** Director of the Basic Education Department of Changsha Municipal Education Bureau, conducted an in-depth analysis of the vision and pathways for evaluating students' comprehensive quality in the intelligent era. He pointed out that Changsha is actively exploring how to integrate advanced performance evaluation tools from the SEED platform into the local evaluation system. He emphasized that by reconstructing a cohesive evaluation index system, building a multidimensional, data-driven evaluation ecosystem, and developing competency-oriented intelligent evaluation tools, a replicable regional model is being provided to solve evaluation challenges.

**Ms. HU Qunge,** Deputy Secretary of Xi'an Modern Education Information Technology Center, introduced the city's practice of reconstructing a new ecosystem for educational evaluation through intelligent empowerment, based on "infrastructure first and data integration." She emphasized that by relying on the SEED platform assessment reports, the city continuously optimizes the comprehensive student quality evaluation system. This initiative promotes pilot schools to carry out localized innovations based on data, creating a new evaluation ecosystem characterized by "one school, one feature." She stated that by deeply integrating assessment into the entire teaching process, the goal is to achieve a fusion of teaching and evaluation, enhancing the quality and efficiency of the classroom while improving the precision of educational governance through the aggregation of comprehensive data.


## Thematic Speech

In the Thematic Speech session, **Prof. ZHENG Qinhua,** Executive Deputy Director of the National Engineering Research Center of Cyberlearning and Intelligent Technology and a professor at Beijing Normal University, provided a detailed interpretation of how to achieve deep integration of the SEED solution with existing regional evaluation systems through indicator integration, data fusion, and system ntegration. He pointed out that the SEED solution must

achieve deep collaboration with local evaluation systems through the triple integration of indicators, data, and systems. He emphasized that the current challenges include inconsistencies in indicator connotations and differences in data standards, indicating the need to establish scientific mapping and technological alignment. This would promote the complementary relationship between SEED's standardized diagnostics and regional practical features, and explore the construction of a new ecosystem for comprehensive evaluation that integrates diagnostics, education, and selection.


**Improve evaluation indicators: A theoretical system for comprehensive quality assessment with regional characteristics**

In the final summary of the Session, **Prof. LI Shuang,** Professor, Beijing Normal University pointed out that the forum has formed a broad consensus on the concept of "Trinity" evaluation, the empowerment of AI technology, the development of regional characteristics, the integration of data and the application of results. She said that with the deepening of the pilot work, artificial intelligence will surely give rise to a new paradigm of evaluation, reconfigure the regional education ecology, and help the construction of a strong education country.

*The Parallel Session: Rethinking Assessment in the Age of AI was jointly organized by the Research Institute of K12 Educational Big Data Application and the National Engineering Research Center at Beijing Normal University

## Key Takeaways

- Education assessment is an eternal aspect of education. The exploration of AI-enabled reforms in education assessment has just begun. It is essential to stay on the right path and work diligently over time, focusing on the "four persistences": value leadership, innovative methods, practical application of results, and ethical safeguards. These efforts will promote the in-depth development of education assessment reforms and contribute to the construction of a strong education nation.
- The traditional comprehensive quality assessment has significant shortcomings such as theoretical disconnection, inaccurate diagnosis, and weak objectivity. It is essential to establish a new evaluation system that integrates "education, diagnosis, and selection" as a unified whole.
- The results of dimensions such as "problem-solving and innovation" and "self-directed learning" in the assessment are highly correlated with students' performance in science and technology competitions, providing a scientific basis for the early identification of top talent in science and technology.
- By integrating evaluation deeply into the entire teaching process, it is possible to achieve the fusion of teaching and evaluation, enhancing the quality and efficiency of the classroom. At the same time, relying on the collection of comprehensive data can improve the precision of educational governance.
- Currently, we face challenges such as inconsistent meanings of indicators and differences in data standards. Therefore, it is necessary to establish a scientific mapping and technical integration to promote the complementary relationship between standardized SEED diagnostics and region-specific practices. Additionally, we should explore the construction of a new ecological model of comprehensive assessment that integrates diagnosis, education, and selection into a "trinity."

# Parallel Session: Smart Villages and Education for Rural Transformation

The Parallel Session: Smart Villages and Education for Rural Transformation brought together nearly one hundred on-site participants, including policymakers, representatives from universities and international organizations, principals of vocational and technical schools, industry representatives, and frontline teachers from China, 11 Southeast Asian countries, as well as several African countries and regions.

Participants engaged in in-depth discussions on the future vision of smart villages and pathways for rural education transformation; the opportunities, challenges, and innovative solutions associated with empowering rural education through digital technologies; international experiences of leveraging digital transformation in vocational education to support sustainable rural development; and the opportunities and challenges of STEM education in rural contexts.


**Group Photo of Guests from Parallel Session: Smart Villages and Education for Rural Transformation**

**SPEAKERS**

**Prof. ZHOU Zuoyu**, Vice Chairman of the University Council, Beijing Normal University; Director of UNESCO INRULED

**Ms. LIN Huifang,** Deputy Director-General of Foreign Economic Cooperation Center (China-EU Center for Agricultural Technology), Ministry of Agriculture and Rural Affairs, P.R. China

**Ms. Duriya Amatavivat,** Centre Director, SEAMEO Regional Centre for Sufficiency Economy Philosophy for Sustainability (SEAMEO SEPS)

**Prof. LIU Ji,** Professor, Shanxi Normal University

**Dr. Morn Kritsachai Somsaman,** Director, SEAMEO Regional Centre for STEM Education (SEAMEO STEM-ED)

**Dr. LU Yao,** Vice Dean of International College and Deputy Director of ASEAN-China Education & Training Center, Yunnan Agricultural University, China

**Dr. Nithiananthini Kumarawel,** Assistant Director, Educational Resources and Technology Division, Ministry of Education, Malaysia

**Ms. TIAN Yanli,** Principal of Tianzige Xinglong Experimental Primary School, Guizhou Province, China

**Mr. Muhammad Fandy Osman,** Senior Education Officer at Brunei Polytechnic

**Dr. Chin Sam Ath,** Deputy Director of Department of Policy, Ministry of Education Youth and Sport, Cambodia

**Dr. Eka Nurhidayat,** S.Pd., M.Pd, Head of Cooperation Division, Universitas Majalengka, Indonesia

**Mr. Ts. Khairil Azhar Bin Mohd Nor**, Director of Gerik Community College, Malaysia

**Prof. KAREN B. CUE,** Director for Local and International Affairs, the Philippines

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**MODERATORS**

**Dr. ZHAO Yuchi,** Executive Director, UNESCO INRULED

**Mr. Khat Prumsochetra,** Deputy Director, SEAMEO TED

**Dr. QI Xinjian,** Assistant Director, UNESCO INRULED

During the opening remarks, **Prof. ZHOU Zuoyu,** Vice Chairman of the University Council of Beijing Normal University and Director of INRULED, highlighted that digital technology is exerting a dual impact on rural education and development: on the one hand, it offers unprecedented opportunities; on the other, it poses complex and unpredictable risks and challenges. He stressed the importance of fully leveraging the potential of digital technology to explore innovative solutions that drive educational development, bridge the urban–rural divide, and support the transformation of rural education while cultivating and delivering high-quality talent for rural revitalization.

**Ms. LIN Huifang,** Deputy Director-General of Foreign Economic Cooperation Center role of rural populations and countries of the Global South in achieving the Sustainable Development Agenda. Through an analysis of global urban–rural learning data, he highlighted that both rural "stock" populations and "flow" populations face a shortage of quality learning opportunities in the digital era. He proposed the initiative of "digital solutions to digital problems", aiming to improve educational access and learning quality for rural populations through digital means and effectively enhance learning outcomes.

## Keynote Speech

During the keynote speech session, **Ms. Duriya Amatavivat,** Director of the SEAMEO Regional Centre for Sufficiency Economy Philosophy for Sustainability (SEAMEO SEPS), elaborated on the core concepts of the Sufficiency Economy Philosophy. She emphasized the importance of the three principles—moderation, reasonableness, and prudence—in driving economic, environmental, and social transformation in rural areas. She explored ways to integrate this philosophy into educational practice to guide education policies and curriculum design,

thereby better serving rural development. She also introduced the Centre's key work and achievements in capacity building, research and knowledge production, community engagement, and cross-regional cooperation, showcasing its practical experience in advancing rural education and sustainable development.

**Prof. Liu Ji,** from the School of Education at Shaanxi Normal University, focused on the role of rural populations and countries of the Global South in achieving the Sustainable Development Agenda. Through an analysis of global urban–rural learning data, he highlighted that both rural "stock" populations and "flow" populations face a shortage of quality learning opportunities in the digital era. He proposed the initiative of "digital solutions to digital problems", aiming to improve educational access and learning quality for rural populations through digital means and effectively enhance learning outcomes.

## Case Report

During the case report session, **Dr. Morn Kritsachai Somsaman,** Director of the SEAMEO Regional Centre for STEM Education (SEAMEO STEM-ED), shared the main learning challenges faced by several rural primary schools in Chiang Mai, Nong Khai, and Bangkok, Thailand. These challenges include low student motivation, skills training overly focused on current industry demands, and underutilization of learning resources. He introduced innovative practices in context-specific rural STEM education that leverage local environments and resources, incorporate design thinking, and actively involve parents and communities, thereby enhancing students' learning interest and engagement.

**Dr. LU Yao,** Vice Dean of the International College at Yunnan Agricultural University, introduced Yunnan Province's key role in agricultural cooperation with Southeast Asian countries and shared innovative practices in green and smart agriculture in the context of smart villages. She also elaborated on the projects carried out by the China–ASEAN Education and Training Centre in capacity building, and how these initiatives support the advancement of rural education and regional development.

**Dr. Nithiananthini Kumarawel,** Deputy Director of the Educational Resources and Technology Division at the Ministry of Education, Malaysia, shared Malaysia's policy initiatives and practical experiences in promoting educational digital transformation and cultivating digitally fluent students. She focused in particular on the opportunities and challenges presented by AI-enabled classrooms, as well as how related initiatives contribute to enhancing students' digital literacy and innovative capabilities.

**Ms. TIAN Yanli,** Principal of Tianzigexinglong Experimental Primary School in Guizhou, shared the school's transformation journey, which, under the leadership of founder Mr. Xiao Shijian, evolved from early volunteer-supported education programs into an independently operated school. She highlighted the development of the "local and human-centered" educational philosophy and provided a detailed overview of the school's five distinctive curriculum systems. Through concrete examples, Ms. Tian vividly demonstrated how the school integrates technology with local education innovations, practicing the educational philosophy of "making technology come alive", thereby offering a replicable model for rural education.

## Panel Discussion

During the panel discussion, senior education officials and representatives from Southeast Asian countries exchanged insights on rural sustainable development through vocational and technical education. Participants included **Mr. Muhammad Fandy Osman,** Senior Education Officer at Brunei Polytechnic; **Mr. Chin Sam Ath,** Deputy Director of Policy at the Ministry of Education, Youth and Sport, Cambodia; **Mr. Eka Nurhidayat,** Director of Cooperation Affairs at Universitas Majalengka, Indonesia; **Ms. Ts. Khairil Azhar Bin Mohd Nor,** Principal of ILP Community College, Malaysia; **Prof. KAREN B. CUE,** Director of Local and International Affairs, Philippines; and five national representatives from the SEAMEO Workshop for Principals of Vocational Education Institutions. From multiple perspectives—including policy-making, academic cooperation, community engagement, and partnerships—they shared mechanisms and innovative approaches for advancing rural sustainable development through vocational and technical education. The discussion also explored international experiences in the digital transformation of vocational education, as well as the opportunities and challenges of digital and green transitions in this sector.


Photo of Panel discussion

## Summary

As one of the parallel sessions of the Global Smart Education Conference, this session not only deepened cutting-edge thinking on rural education development in the context of digital transformation but also inspired participants to explore practical approaches to educational equity and inclusion. By bringing together diverse perspectives and innovative solutions, the session promoted the enhancement of innovation and adaptability within education systems, providing actionable directions and feasible solutions to address the complex challenges of the digital era and accelerate the transformation and sustainable development of rural education.

*The Parallel Session: Smart Villages and Education for Rural Transformation was organized by the UNESCO International Research and Training Centre for Rural Education (INRULED) and the SEAMEO Regional Centre for Technical Education Development (SEAMEO TED), with support from the SEAMEO Regional Centre for Sufficiency Economy Philosophy for Sustainability (SEAMEO SEPS) and the SEAMEO Regional Centre for STEM Education (SEAMEO STEM-ED).




This parallel session was jointly moderated by Dr. ZHAO Yuchi, Executive Director, UNESCO INRULED; Mr. Khat Prumsochetra, Deputy Director, SEAMEO TED, and Dr. QI Xinjian, Assistant Director, UNESCO INRULED.

## Key Takeaways

- Digital technology presents both unprecedented opportunities and complex, unpredictable risks for rural education and development, requiring proactive exploration of innovative solutions to bridge the urban–rural divide and support rural revitalization through education.
- Smart villages and rural education transformation must be embedded in cross-regional and cross-sectoral collaboration mechanisms, enabling rural education to align more effectively with regional and international development agendas.
- China–ASEAN cooperation plays a vital role in advancing smart agriculture and rural education, through joint research, exchange platforms, pilot projects, and capacity-building initiatives that strengthen mutual learning and shared development.
- Rural populations, particularly in the Global South, continue to face significant gaps in access to quality learning opportunities in the digital era, calling for “digital solutions to digital problems” to improve learning access, quality, and outcomes.
- Context-based STEM education that leverages local environments, design thinking, and community engagement can significantly enhance student motivation and learning outcomes in rural schools, especially when parents and local communities are actively involved.
- Technical and vocational education and training (TVET) is a key driver of sustainable rural development, with digital and green transformation offering both opportunities and challenges that require policy innovation, institutional collaboration, and industry partnerships.
- Human-centered and locally grounded educational models, combined with appropriate technology use, can generate replicable pathways for rural education transformation, demonstrating that digital empowerment must remain rooted in local culture, needs, and educational values.

# Parallel Session: Empowering Teachers through AI-Driven Continuous Professional Development

The parallel session brought together officials, scholars, and industry experts from universities, research institutions, and international organizations, both domestic and international, to engage in in-depth discussions on key issues. These included the definition and development pathways of teachers' artificial intelligence literacy; the deep integration of AI across the full teaching cycle—encompassing lesson preparation, classroom instruction, tutoring, and educational research; as well as educational ethics and the delineation of responsibilities in the intelligent era.


**Group Photo of Guests from Parallel Session: Empowering Teachers through AI-Driven Continuous Professional Development**

**SPEAKERS**

**Prof. ZHAN Tao,** Director, UNESCO Institute for Information Technologies in Education (UNESCO IITE)

**Mr. ZHAO Xin,** Deputy Director of the Department of Teacher Education, Ministry of Education, P.R. China

**Mr. XIA Yingyuan,** Member of the Party Committee and Deputy General Manager of China Reform Culture Holdings Co., Ltd. (CRHC)

**Prof. John Shawe-Taylor,** Director, Centre for Computational Statistics and Machine Learning, University College London; Director, UNESCO International Research Centre on Artificial Intelligence (IRCAI)

**Dr. Song Hae-deok,** President, Korean Society for Educational Technology (KSET), Korea

**Dr. Natalia Amelina,** Senior National Project Officer and Chief of Unit of Teacher Professional Development and Networking, UNESCO IITE

**Prof. Demetrios Sampson,** University of Piraeus, Greece

**Prof. Abtar Darshan Singh,** UNESCO Chair on Harnessing Innovations in Technology to Support Teachers and Quality Learning

**Prof. Brinda Oogarah-Pratap,** Head of the Outer Island and International Affairs Desk at the MIE, Mauritius

**Dr. Renee Chew Shiun Yee,** Research Fellow & Senior Lecturer, Centre for Educational Sustainability Development & Strategies, Faculty of Education and Liberal Arts (FELA), INTI International University, Malaysia

**Mr. XIAO Fangming,** Director of the Education Commission of Yuzhong District, Chongqing

**Prof. HU Xiaoyong,** Director of the Teacher Development Center and Executive Deputy Dean of the Institute of Educational Artificial Intelligence, South China Normal University

**Prof. Gary Wong,** Director of the Education Technology Center, The University of Hong Kong

**Mr. WANG Yong,** General Manager of Guangzhou AVA Electronics Technology Co., Ltd.

**Ms. LIU Shufang,** Director of the Education Bureau of Quanzhou City

**Mr. CAO Hairong**, Director of the Institute of Educational Technology, Suzhou City

**Mr. ZHANG Guofeng,** Director of the Education and Sports Bureau of Shouguang City

**Mr. TIAN Shenjian,** Director of the Education and Sports Bureau of Zoucheng City

**Mr. HUANG Bin,** Principal of Changjun Bilingual Experimental Middle School, Changsha City

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**MODERATORS**

**Dr. Tatiana Shutova,** Programme Specialist, Unit of teacher Professional Development and Networking, UNESCO IITE

**Mr. ZHOU Yueliang,** Professor, Dean of Smart Education Research Institute, Zhejiang Normal University

In the Opening Remarks, **Prof. ZHAN Tao,** Director of UNESCO IITE, emphasized that AI presents both unprecedented opportunities and significant challenges for education, with teacher development as its core. As the only institution within the United Nations system dedicated to educational information technology and AI-powered teacher development, UNESCO IITE has been continuously promoting teacher training and professional growth. He called on the global education community to strengthen cooperation and share wisdom, to promote human-AI collaborative symbiosis and contribute to the sustainable development of education and society.

**Mr. ZHAO Xin,** Deputy Director of the Department of Teacher Education, Ministry of Education, of China, emphasized in his speech that teachers, as the core force of educational transformation, will determine the future of education through their own transformation and capacity enhancement. The Ministry of Education places high importance on the digital transformation of the teaching workforce, is committed to enhancing digital literacy and promoting the deep integration of AI into education. He pointed out that at present, there are issues such as uneven digital literacy among teachers and a slow shift in mindset. He called for the joint establishment of a global

community for AI-enabled teacher education to promote mutual recognition of standards, data interoperability, and platform interconnection. Additionally, he emphasized strengthening international collaboration and joint curriculum development to build an open and shared new paradigm for smart education.

**Mr. XIA Yingyuan,** Member of the Party Committee and Deputy General Manager of China Reform Culture Holdings Co., Ltd. (CRHC), stated that AI, as a new quality productive force, is accelerating the transformation of human-AI collaboration in education and reshaping the roles, capabilities, and development models of teachers. As a central state-owned enterprise, CRHC has long been dedicated to empowering teacher development through AI. Relying on AVA Electronics, CRHC has developed products such as the multimodal analysis tools, AI mentorship interaction system, and smart education platforms, to foster teacher growth and promote educational equity. He emphasized that the key to educational innovation lies in unleashing teachers' creativity and making AI a powerful supporter for educators, and called for the joint creation of a new, intelligently symbiotic educational ecosystem.

## Keynote Speech

During the keynote speech, **Prof. John Shawe-Taylor,** Director of UNESCO IRCAI and Professor of UCL, emphasized in his speech that advancing AI applications must be grounded in a clear understanding of the essence and principles of education. AI should serve as a collaborator rather than a replacement for teachers, enhancing educators' efficiency and creativity through human-AI collaboration to foster deeper learner understanding and engagement. The potential of large language models lies in stimulating students' interest in learning and critical thinking through debate and interaction, and enhancing their engagement and communication skills. It is anticipated that effective human-AI collaboration can be built in the future to enable AI to truly empower educators and learners.

**Dr. Song Hae-deok**, President of Korean Society for Educational Technology (KSET), noted that AI is driving the digital transformation of education in South Korea, with digital textbooks and support systems already widely adopted, though disagreements persist across various sectors of society. He emphasized the need to establish unified standards and enhance teachers' digital literacy, and help them adapt to new technologies through large-scale training. He believes that future education should be human-centered, focusing on cultivating qualities such as empathy, collaboration, and social-emotional skills. He advocated for AI to serve as a learning partner, while teachers take on the role of guides.

**Dr. Natalia Amelina,** Senior National Project Officer and Chief of Unit of Teacher Professional Development and Networking, UNESCO IITE, emphasized that enhancing AI competency among teachers and students is pivotal for the future of education. She called for addressing existing challenges and bridging the digital divide by increasing investment in teacher training, integrating AI into multidisciplinary curricula, expanding equitable access to technological infrastructure, strengthening education in ethics and critical thinking, and deepening global collaboration.

**Prof. Demetrios Sampson** from the University of Piraeus, Greece, introduced Europe's multifaceted practices in deeply integrating AI into education through policies like the "Digital Education Action Plan," which aims to enhance teachers' digital literacy and support their professional development. The European Union promotes training and professional exchange, benefiting millions of teachers and school users worldwide through initiatives such as advancing AI literacy, establishing open platforms, exploring micro-credentials, and leveraging technology to mitigate educational inequalities. He emphasized that empowering teachers with AI goes beyond enhancing individual capabilities, and requires support from systematic platforms, policy frameworks, and transnational partnerships.

**Prof. Abtar Darshan Singh,** UNESCO Chair on Harnessing Innovations in Technology to Support Teachers and Quality Learning and Professor of the APU, introduced that her team has provided eight AI training modules to approximately 7,000 teachers from 24 countries within two years. These modules cover areas such as content generation, instructional design, academic research and writing, as well as assessment innovation. She emphasized that the core of smart education lies in continuously improving teaching efficiency, learning experience, and content adaptability, while supporting personalized and multilingual learning. She also called for strengthening regional and global cooperation.

**Prof. Brinda Oogarah-Pratap,** Head of the Outer Island and International Affairs Desk and Associate Professor at the Mauritius Institute of Education (MIE), Mauritius, highlighted from a Global South perspective, that AI has the potential to empower teacher education, but it also faces significant challenges such as inadequate infrastructure, limited training opportunities, and cultural neglect. She emphasized that AI should serve as an inclusive tool and integrate with local languages and cultures to provide teachers with more effective training and support. She called for promoting inclusive AI applications, formulating privacy policies, developing localized AI literacy, and enhancing collaboration and investment to advance educational equity.

**Dr. Renee Chew Shiun Yee,** Research Fellow & Senior Lecturer of the Centre for Educational Sustainability Development & Strategies, Faculty of Education and Liberal Arts (FELA), INTI International University, Malaysia, emphasized that teachers need to guide students in the ethical use of AI and help them avoid academic plagiarism and over-reliance. She proposed an "EIV Framework": Exploration, Identification, and Verification. She advocated for the integration of multiple tools and critical thinking to position AI as an aid rather than a replacement for teachers or learners.


## Release Session

UNESCO IITE, Beijing Normal University, and NetDragon Websoft Inc. jointly launched a short video series titled Artificial Intelligence and the Future of Education–The Future is Here. This series focuses on the profound impact of AI on teaching models, teacher-student relationships, and educational ethics, and explores issues such as the redefinition of teachers' roles, the governance of gender bias, and the establishment of ethical standards for technologies, aiming to promote the development of a human-AI collaborative "dual-teacher model."


**Photo of short video series titled Artificial Intelligence and the Future of Education–The Future is Here**

## Keynote Speech

In the second round of keynote speeches, **Mr. XIAO Fangming,** Director of the Education Commission of Yuzhong District, Chongqing, stated that AI is reshaping teaching models and redefining the role of educators. He emphasized that the key to educational transformation lies in teachers' digital literacy and classroom restructuring. Yuzhong District started with “AI-native classrooms” to promote intelligent tools as cognitive carriers, built a collaborative smart teaching environment for teachers and students in “AI-symbiotic classrooms,” and aims to ultimately achieve low-cost, high-efficiency “AI-creative classrooms.” He called for moving beyond an instrumental perspective and jointly building a new ecosystem for future classrooms characterized by human-AI collaboration, data-driven approaches, and co-creation and sharing.

**Prof. HU Xiaoyong,** Director of the Teacher Development Center and Executive Deputy Dean of the Institute of Educational Artificial Intelligence, South China Normal University, proposed that the “future teachers” in the AI era should encompass a diverse range of roles, including teacher trainees, in-service educators, and AI “quasi-teachers.” He emphasized the need to shift teachers' focus from “information literacy” to “intelligence literacy,” and to reshape their professional competencies with practice at the core. He introduced that South China Normal University has provided replicable and scalable paradigms for the intelligent transformation of the teaching workforce by constructing national-level smart training scenarios for future classrooms, releasing a series of research outcomes and development reports, and promoting courses and platforms.

**Prof. Gary Wong,** Director of the Centre for Information Technology in Education (CITE), The University of Hong Kong, believed that AI should be regarded as a “first-aid kit” in teachers' instructional practices, providing support in unexpected situations. He advocated for enhancing teachers' awareness and proficiency in using AI tools through systematic training, establishing a human-AI collaboration mechanism between teachers and AI, and achieving the organic integration of intelligent technology and educational value in the classroom.


**Mr. WANG Yong,** General Manager of Guangzhou AVA Electronics Technology Co., Ltd., explained that in response to practical challenges such as difficulties in classroom data collection, low analysis standards, weak pedagogical research mechanisms, and data security concerns, AVA Electronics proposed a solution path centered on “AI-driven evidence-based pedagogical research” to construct a closed-loop for instructional reform. By integrating multimodal, unobtrusive data collection, educational-specific large model reasoning, multidimensional evaluation system development, and human-AI collaborative growth support, the company aims to create a new ecosystem for teacher development characterized by “data-driven—intelligent decision support—targeted improvement.”

**Ms. LIU Shufang,** Director of the Education Bureau of Quanzhou City, introduced that Quanzhou has established a comprehensive digital ecosystem spanning teacher development, student growth, home-school collaboration, and educational management through its self-developed “Quanzhou Education Online” integrated platform. This system serves more than 100,000 teachers and 1.7 million students across the city. By leveraging mechanisms such as synchronous classrooms, dual-teacher pedagogical research initiatives, and digital profiling, the system is driving teachers toward data-driven transformation, with plans to cultivate 10,000 AI teaching specialists within three years.

**Mr. CAO Hairong,** Director of the Institute of Educational Technology, Suzhou, shared Suzhou's integrated approach to advancing teacher transformation through a four- pronged strategy: “top-level design—platform construction—diverse research and training—scenario innovation.” Guided by policies, supported by platforms, and driven by comprehensive training, the city has built a human-AI collaborative ecosystem for future teachers. As he said, Suzhou will continuously adhere to the development philosophy of “intelligent, people-oriented, and continuous upgrading” to build a diverse, integrated, and human-AI collaborative ecosystem for future teachers. Experts from different fields are welcome to participate in the initiative.

**Mr. ZHANG Guofeng,** Director of the Education and Sports Bureau of Shouguang City, emphasized that Shouguang has leveraged over two decades of accumulated experience in educational IT application to systematically advance three key initiatives. First, the city has built a digital foundation through infrastructure upgrades. Second, it has established a mechanism to enhance teachers' digital literacy by designing a three-phase growth path—“technology adaptation → integration and modification → innovative application. Third, it is driving teaching innovation with the “Six-Step AI Tool Application Method,” enabling full-process digitalization of teaching practices, and creating a data-driven new model for pedagogical research.

**Mr. TIAN Shenjian,** Director of the Education and Sports Bureau of Zoucheng City, shared the practices in Zoucheng that promote the digital transformation of education and facilitate urban-rural educational equity through human-machine collaboration: establishing a "cloud-network integration" digital infrastructure (achieving full coverage of a 10G education network and smart classrooms) and an education cloud platform that aggregates over 15 million resources, thereby constructing a collaborative ecosystem involving "government, schools, enterprises, and teachers." AI has been introduced to carry out targeted teaching and classroom assessment, and a digital literacy training system for teachers has been established through intelligent lesson preparation and classroom diagnosis, supporting the professional growth of teachers.

**Mr. HUANG Bin,** Principal of Changjun Bilingual Experimental Middle School, Changsha, shared the practice of empowering campus safety through digital intelligence: the school has established an intelligent security system, created digital risk profiles, and deployed intelligent sensory defenses, focusing on key scenarios such as abnormal behavior recognition. They have built an intelligent closed loop of "accurate positioning, hierarchical intervention, and rapid response," promoting intelligent collaboration across multiple scenarios and achieving a shift from passive response to proactive prevention, calling for the creation of a safe, warm, and intelligent campus environment.

*The Parallel Session: Empowering Teachers through AI-Driven Continuous Professional Development was jointly organized by the UNESCO Institute for Information Technologies in Education (UNESCO IITE), Guangzhou AVA Electronics Technology Co., Ltd., and NetDragon Websoft Inc., and co-organized by Yuzhong District Education Commission, Chongqing, National Engineering Research Center of Cyberlearning and Intelligent Technology and Institute of Educational Artificial Intelligence, South China Normal University.



This parallel session was jointly moderated by Dr. Tatiana Shutova, Programme Specialist, Unit of teacher Professional Development and Networking, UNESCO IITE and Mr. ZHOU Yueliang, Professor, Dean of Smart Education Research Institute, Zhejiang Normal University.

## Key Takeaways

- The UNESCO Institute for Information Technologies in Education (UNESCO IITE) continues to promote teacher training and professional growth. It hopes that the global education community will strengthen collaboration and share wisdom to advance the symbiosis between humans and machines, contributing to the sustainable development of education and society.
- Currently, there are issues such as the uneven digital literacy among teachers and a lag in the shift of mindset. There is a call to collaboratively build a global intelligent teacher education community to promote mutual recognition of standards, data interoperability, and platform connectivity. This will strengthen international cooperation and co-create curricula, aiming to establish a new landscape of open and shared smart education.
- The key to educational innovation lies in unleashing teachers' creativity. Artificial intelligence should be positioned as an efficient supporter for teachers, and there is a call to collaboratively build a new ecology of education that fosters smart symbiosis.
- To promote the application of artificial intelligence, it is essential to first understand the connotations and principles of education. AI should serve as a collaborator for teachers rather than a substitute, enhancing teachers' efficiency and creativity through human-machine collaboration, and facilitating learners' better understanding and engagement.
- A unified standard needs to be established to enhance teachers' digital literacy, and large-scale training should be implemented to help teachers adapt to new technologies. Future education should be human-centered, focusing on cultivating competencies such as empathy, collaboration, and social-emotional skills. It is important to advocate for artificial intelligence to become a learning partner, with teachers transitioning into the role of guides.
- Address existing challenges and bridge the digital divide by increasing investment in teacher training, integrating AI into multidisciplinary curricula, promoting the construction of technology-inclusive facilities, strengthening education in ethics and critical thinking, and deepening global cooperation.
- Promote training and professional exchanges by promoting AI literacy, building open platforms, exploring micro-credentials and technology to alleviate educational inequality, and other programs that benefit millions of teachers and school users worldwide.
- The core of smart education lies in continuously improving teaching efficiency, learning experience, and content adaptability, supporting personalized and multilingual learning, and calling for strengthened regional and global cooperation.
- Artificial intelligence should be seen as a "first aid kit" for teachers' instruction, providing support in unexpected situations. Systematic training should be provided to enhance teachers' awareness and application abilities regarding AI tools, establishing a collaborative human-machine synergy between teachers and AI, and achieving an organic integration of intelligent technology and educational values in the classroom.

# Editors' Forum on Academic Research and Publishing

This forum marks the first occasion in the ten-year history of the Smart Education Conference to convene leading journal editors alongside a wide range of education experts from both domestic and international contexts. It addresses topics spanning from micro-level academic writing to macro-level research paradigms.

Academic journals serve as key vehicles for advancing scholarly thought, generating intellectual insight, and documenting the evolution of the times. They function not only as "beacons of thought" and "academic barometers," but also as important platforms for dialogue and innovation within the academic community. Focusing on critical issues such as the global selection and dissemination of research outcomes, the integration of "learning for application" throughout the research process, the reconfiguration of educational research paradigms in the era of artificial intelligence, and the construction of autonomous knowledge systems, the forum aims to share cutting-edge publishing perspectives, in-depth academic reflections, and practical guidance for scholarly writing.


Group Photo of Guests from Editors' Forum on Academic Research and Publishing

**SPEAKERS**

**Dr. ZHANG Caiyun,** Editor-in-Chief of Educational Research, Researcher at the China National Academy of Educational Sciences

**Prof. Josep M. Duart,** Editor-in-Chief, International Journal of Educational Technology in Higher Education; Professor, Psychology and Education Sciences Department, Universit at Oberta de Catalunya, Spain

**Prof. WANG Dinghua,** Editor-in-Chief, Journal of the Chinese Society of Education; Secretary of CPC Committee of Beijing Foreign Studies University; Vice President of The Chinese Society of Education

**Prof. ZHONG Xiaoliu,** Editor-in-chief of Modern Educational Technology; Vice President of China Association for Educational Technology

**Prof. JIA Yuchao,** Editor-in-Chief, Chinese Journal of Distance Education

**Dr. SONG Lingqing,** Editorial Director of China Educational Technology

**Prof. Pedro Isaias,** Editor-in-Chief of Interactive Technology and Smart Education

**Prof. ZHENG Lanqin,** Associate Editor of Journal of Computer Assisted Learning,; Assistant Editor-in-Chief of Journal of Computers in Education; Professor at BNU

**Mr. LONG Zhengwu,** the General Manager and Chief Editor of People's Education Audio-visual Digital Publishing House; Executive Chief Editor of the Journal "Digital Teaching in Primary and Secondary Schools"

**Prof. TAN Mingjie,** Editor-in-Chief of Modern Distance Education Research

**Prof. LIM Cher Ping,** Chair Professor of Learning Technologies and Innovation, Faculty of Education and Human Development, The Education University of Hong Kong; Advisory Editor of The Internet and Higher Education (An Elsevier Journal)

**Mr. YE Baolin,** Editorial Director of the Editorial Department of Modern Distance Education

**Prof. GUO Jiong,** Editor-in-Chief of e-Education Research; Dean, School of Educational Technology, Northwest Normal University

**Prof. LIU Baocun,** Deputy Editor of International and Comparative Education; Dean of the Institute of International and Comparative Education at Beijing Normal University

**Prof. CHIU Kin-fung, Thomas**, Editor-in-Chief of Interactive Learning Environments; Assistant Professor, Department of Curriculum and Instruction, The Chinese University of Hong Kong

**Prof. JIANG Wenbo,** Director of the Reading and Continuing Education Department at Higher Education Press; Director of the Editorial Department of the journal Frontiers of Digital Education

**Dr. XU Huifu,** Executive Chief Editor of Open Education Research

**Prof. Henk Huijser,** Editor-in-Chief of Australasian Journal of Educational Technology; Associate Professor, Queensland University of Technology

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**MODERATORS**

**Prof. CEN Hongxia,** Deputy Editor of Journal of Distance Education

**Prof. Sarah Prestridge,** Interim Executive Editor of Distance Education; Professor, Griffith University

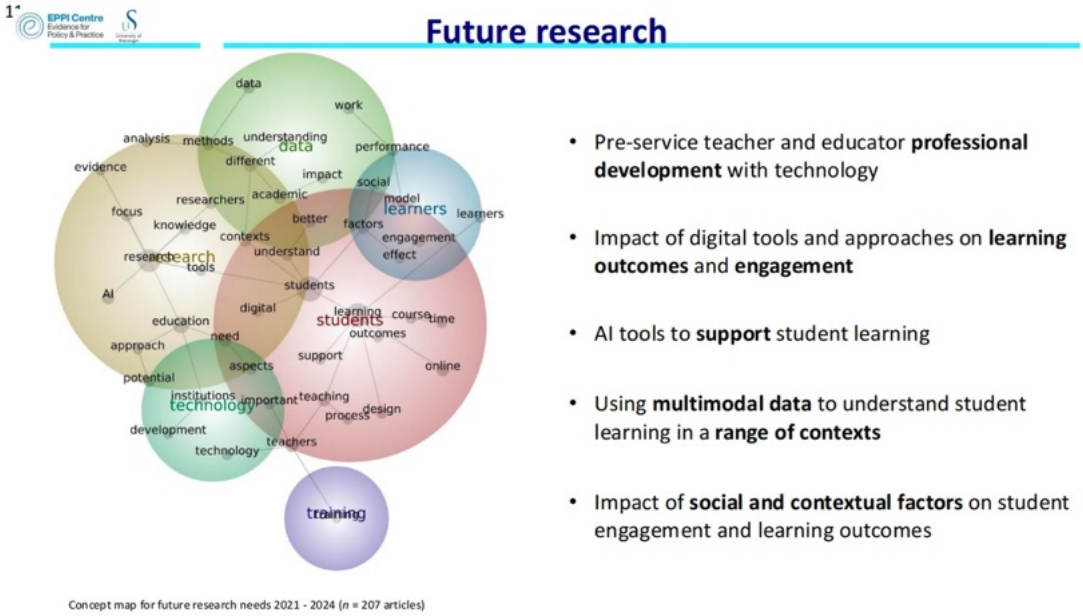
**Mr. HUANG Wei,** Editor of New Media Director of China Higher Education

## Multidimensional Exploration of Journal Development and Academic Innovation

In the keynote report session, **Dr. ZHANG Caiyun,** Editor-in-Chief of Educational Research," emphasized that the core criteria for a good article are based on the "Four Principles": First, Value: the topic should address significant needs and avoid redundant research; Second, Innovation: it needs to demonstrate breakthroughs in six dimensions, including new ideas and methods; Third, Theory: it emphasizes solid theoretical depth and refinement; Fourth, Normativity: there are strict requirements for format and authorship to prevent academic misconduct. She stated

that the journal implements a comprehensive "Five Reviews and Four Proofreads" system, while positioning the editorial team as "academic gatekeepers, lighthouses, bridges, judges, conductors, and gardeners," stressing that "a good article is the result of thorough refinement." The team works together in multiple roles to strengthen the academic quality defense line.

**Prof. Josep M. Duart,** Editor-in-Chief, International Journal of Educational Technology in Higher Education, introduced the journal's editorial philosophy, operational achievements, and submission recommendations. He clarified that the journal focuses on "higher education, international education, and educational technology" as its core themes and consistently adheres to an open-access strategy that allows for free publication. He emphasized that the journal's core evaluation metrics are academic reputation and rigorous peer review, with a strong encouragement for cutting-edge research directions, particularly in areas such as teacher development and technology-enabled education, with a special emphasis on the application of artificial intelligence in education. Regarding submission requirements, he pointed out that research must be based on solid original findings, topics should closely follow the cutting-edge trends in the discipline, content should reflect an international comparative perspective, and submissions must ensure structural rigor and originality in their conclusions.




Concept map for future research needs 2021 - 2024 (*n* = 207 articles)

**Prof. WANG Dinghua,** Editor-in-Chief of Journal of the Chinese Society of Education, Secretary of the Party Committee of Beijing Foreign Studies University, emphasized that educational research in the contemporary era must closely align with national development strategies. He noted that academic journals should uphold the principle of "serving national strategies" as their core mission, with a strong focus on intellectual leadership, theoretical innovation, practice-oriented guidance, and support for evidence based educational policymaking. He further stressed the importance of maintaining rigorous academic standards and clarity in scholarly writing, while actively engaging in international academic exchange to enhance journal quality. By continuously tracking key priority areas and inviting contributions from both leading scholars and emerging researchers, journals can strengthen their academic influence and sustain long-term impact.

**Prof. ZHONG Xiaoliu,** Editor-in-chief of Modern Educational Technology, discussed the impact of artificial intelligence on educational forms from an engineering technology perspective. This includes various aspects such as organizational forms, resource forms, and evaluation forms, and he analyzes the shocks and transformations that AI brings to educational technology research. He points out that the research paradigm is shifting from empirical to natural, requiring researchers to enhance their academic and technical literacy, as well as critical thinking skills. He introduces the journal's exploration of incorporating large models into the peer review process, focusing on hot topics like empowering instructional design and evaluation. He reminds us to pay attention to both the positive and negative effects of AI and emphasizes that the journal prioritizes engineering applications.

**Prof. JIA Yuchao,** Editor-in-Chief, Chinese Journal of Distance Education, directly pointed out the current pain points in research: "There is more theoretical research and less empirical research; more policy research and less practical research; many studies on hot topics but very few on ice-cold topics." He emphasized the urgency of building an independent teaching knowledge system in China. He believes that constructing this system requires the proposal of core concepts and the formation of an explanatory framework. The outcome would be recognized and utilized by foreign peers who apply these concepts and frameworks to analyze educational issues, with the core competitiveness of representative teaching concepts and acknowledged educational theories lying in their explanatory power.

**Dr. SONG Lingqing,** Editorial Director of China Educational Technology, introduced the development achievements and influence of the journal over the past 45 years since its inception. He pointed out that in terms of topic selection, it is essential to follow multiple principles such as political relevance and cutting-edge trends, serving national strategies, educational theoretical innovation, and practical problem-solving. He suggested focusing on policies, theoretical challenges, hot issues, and the journal's key themes. He emphasized that "a good topic determines the success or failure of a paper" and noted that writing should pay attention to three levels: "normativity, scientificity, and innovation."

The keynote speech session was moderated by **Prof. CEN Hongxia,** Deputy Editor of Journal of Distance Education.

## Reconstruction of Educational Research Paradigms in the Era of Human-Machine Collaboration

In the Panel Discussion session 1, five experts engaged in an in-depth discussion on the following two topics: first, how "human-machine collaboration" is specifically reconstructing key aspects of educational research; second, how to balance the conflict between academic creation and AI tools in the face of the challenges posed by artificial intelligence. This session was moderated by **Prof. Sarah Prestridge,** Interim Executive Editor of Distance Education; Professor, Griffith University.


Photo of the Panel Discussion 1

**Prof. ZHENG Lanqin,** Associate Editor of Journal of Computer Assisted Learning,; Assistant Editor-in-Chief of Journal of Computers in Education, shared a case study on human-machine collaborative coding classroom dialogues. She demonstrated how AI can assist in generating coding frameworks, while researchers are responsible for reflection, verification, and correction, thus forming a new paradigm of "symbiosis" in research. She emphasized the importance of maintaining the ethical boundaries of academic research and clearly defining the limits of AI tool usage. Zheng highlighted the irreplaceability of researchers and advised following principles such as clearly stating the use of AI in papers and not allowing AI to replace writing.

**Mr. LONG Zhengwu,** the Executive Chief Editor of the Journal "Digital Teaching in Primary and Secondary Schools", points out from a basic education perspective that "AI tools have improved the writing quality of primary and secondary school teachers, with the key being the practicality and authenticity of the content. 'No matter if it's a white cat or a black cat, a good cat is one that catches mice.'" From a practical standpoint, he believes that for primary and secondary school teachers, the important aspect of using AI to generate content and subsequently summarizing it into articles is that the content must be realistic, reliable, and meaningful. AI can serve a role similar to that of a research instructor.

**Prof. TAN Mingjie,** Editor-in-Chief of Modern Distance Education Research, pointed out that the use of generative artificial intelligence in educational research can be roughly divided into three categories: the exploration of macro-level application potentials and risks, the optimization of specific application scenarios, and its role as a research paradigm or tool. A cautious approach is necessary for the latter category of applications. He mentioned that there are now relevant guidelines in academia regarding the use of generative AI tools in papers, such as the requirement to declare the usage in the submission email, and researchers can refer to the "Guidelines on the Boundaries of AIGC Use in Academic Publishing" as a normative document.

**Prof. LIM Cher Ping,** professor from Hong Kong Educational University and advisory editor of "The Internet and Higher Education," emphasizes that research is inherently a collaborative process, and the role of artificial

intelligence in this context needs to be critically examined. AI impacts every stage of the research process, from data collection to publication, and it is crucial to recognize the decision-making roles of various stakeholders in research. He points out that artificial intelligence should be viewed from a broader perspective, considering factors such as job title settings and economic incentives that influence the research process. Policies should be developed to ensure its positive impact, facilitating knowledge creation, sharing, and educational practices.

**Mr. YE Baolin,** Editorial Director of the Editorial Department of Modern Distance Education, elaborated on the role of human-machine collaboration throughout the entire process of educational research paradigms. This is reflected in aspects such as the shift from experience-driven to data-driven problem formulation, real-time processing of data collection and analysis, interdisciplinary integration in theoretical construction, and the optimization and iteration of result verification. He suggested that the balance between academic creation and the use of AI tools can be understood from four perspectives: defining ethical boundaries, technical participation in detection, review, and tracing, educational reconstruction, and changes in evaluation dimensions.

During the Live Interaction session 1, the audience actively asked questions and engaged in in-depth discussions with the guests on topics such as "AI as the author of articles."

## Academic Writing and Publishing in Educational Research

In the Panel Discussion session 2, five experts discussed "How research achievements can reach the world" and "The balance of academic growth for young scholars.". The session was moderated by **Mr. HUANG Wei,** Editor of New Media Director of China Higher Education.


Photo of the Panel Discussion 2

**Prof. GUO Jiong,** Editor-in-Chief of e-Education Research; Dean of the School of Educational Technology at Northwest Normal University, pointed out that the three key characteristics of successful international communication are "universality, methodological dissemination, and cross-cultural understanding." She illustrated this by providing examples such as PISA, the China-Central-Eastern Europe Gansu Basic Education Project, and the China-Finland Education Cooperation Project. She suggested that young scholars should focus deeply on one or two areas, establishing a main research direction, and that journals should provide support and guidance for scholars who engage in long-term research.

**Prof. LIU Baocun,** Deputy Editor of International and Comparative Education; Dean of the Institute of International and Comparative Education at Beijing Normal University, emphasized the need for a global perspective, citing the global comparative study of the ratio of vocational education to general education at the senior high school level as an example. He pointed out that studying issues from a global perspective yields more enlightening results. He believes that research and publication are not entirely synonymous, and that young scholars should focus on core disciplinary issues while avoiding blindly chasing trends. At the same time, combining traditional research fields with real-world problems is important to keep pace with changes in the times and remain at the forefront of research.

**Prof. CHIU Kin-fung, Thomas**, Editor-in-Chief of Interactive Learning Environments, proposed three key concepts: perspective, action, and openness. He emphasized the need to clarify one's strengths for promotion, demonstrate actual actions and results, and maintain an open-minded attitude when publishing articles. He raised the thought of "Do we want papers or discourse?" advocating for local actions and a global vision to ensure that research findings have a tangible impact.

**Prof. JIANG Wenbo,** Director of the Reading and Continuing Education Department at Higher Education Press, introduced how "Frontiers in Digital Education," which has been launched for less than two years, focuses on issues at the critical points of what humanity knows and does not know, interdisciplinary research, and the publication of the top ten global hotspots in digital education research. He suggested that young scholars combine teaching with research, reflect on successes and failures in their daily teaching, formulate research questions, alleviate the pressure to publish, and truly achieve the integration of teaching and research, contributing to educational advancement.

**Dr. XU Huifu,** Executive Chief Editor of "Open Education Research," pointed out that education is a global common endeavor. Conducting research around issues of worldwide concern is more conducive to dissemination, and it is essential to use globally recognized methods to facilitate this dissemination. He emphasized the importance of focusing on the rationality of evaluations, actively responding to contemporary issues, learning to pose profound and fundamental questions, and enhancing the quality and level of research.

During the Live Interaction session 2, students on site actively asked questions and engaged in discussions with experts about whether the research paradigm supported by artificial intelligence is ideal and whether it might exacerbate the digital divide. The experts shared their viewpoints, providing various directions for thought.

**Prof. Henk Huijser,** Editor-in-Chief of Australasian Journal of Educational Technology, delivered a video report focuses on the key disruptive factor of "Artificial Intelligence (AI) and the Digital Environment"， points out that AI is developing emerging capabilities to summarize, interpret, and generate knowledge. This breakthrough is rapidly driving the information economy from purely human activities to a hybrid model of human-machine collaborative participation.

**Prof. Pedro Isaias,** Editor-in-Chief of Interactive Technology and Smart Education (Germany), argues that traditional education must transition towards digital, real-world, user-centred learning. Embedding design thinking offers a structured problem-solving approach that empowers students, cultivates creativity, collaboration, and critical thinking, and addresses authentic challenges. Digital tools and generative AI can accelerate ideation and analysis, but they require human oversight.

*The Editors' Forum on Academic Research and Publishing is co-hosted by Educational Research, International Journal of Educational Technology in Higher Education, China Education Journal, Modern Educational Technology, China Distance Education, China Educational Technology, Interactive Technology and Smart Education, Distance Education Journal, Journal of Computer Assisted Learning, Journal of Computers in Education, Digital Teaching in Primary and Secondary Schools, Modern Distance Education Research, The Internet and Higher Education, Modern Distance Education, Distance Education, e-Education Research, International and Comparative Education, Interactive Learning Environments, Frontiers of Digital Education, Open Education Research, China Higher Education, Australasian Journal of Educational Technology. It is also supported by Smart Learning Institute of Beijing Normal University, Digital Publishing & Media Committee, China Association of Educational Technology.

## Key Takeaways

- The core benchmark for a good article is the "Four Principles": First, value, where the topic selection must address significant needs and avoid redundant research; second, innovation, which should reflect breakthroughs in six dimensions such as new ideas and methods; third, theoretical, emphasizing solid theoretical depth and refinement; and fourth, normative, with strict requirements on format, authorship, etc., to prevent academic misconduct.
- The journal's core evaluation criteria are academic reputation and rigorous review processes, with a strong emphasis on cutting-edge research directions. It particularly focuses on areas such as teacher development and technology-enabled education, with special attention to the application of artificial intelligence in education.
- The journal explores the introduction of large models in the peer review process and focuses on empowering teaching design, evaluation, and other hot topics. It reminds readers to pay attention to the positive and negative impacts of AI and emphasizes that the journal prioritizes engineering applications.
- A good topic determines the success or failure of a thesis, and it points out that writing a thesis should focus on three levels: "normativity, scientificity, and innovation."
- To maintain the bottom line of academic research, it is important to define the boundaries for the use of AI tools. She emphasized the irreplaceability of researchers and the need to adhere to principles such as disclosing the use of AI in papers and ensuring that AI does not replace writing.
- It is believed that for primary and secondary school teachers, the key to summarizing practices into articles using AI-generated content is that the content must be genuine, reliable, and instructive. AI can play a role similar to that of a teaching researcher.
- The use of generative artificial intelligence in educational research can be broadly categorized into three types: discussions on the macro-level potential and risks, optimization practices in specific application scenarios, and its role as a research paradigm or tool. A cautious approach is required for the latter type of application.
- To view the application of artificial intelligence in research from a broader perspective, it is important to consider the influence of factors such as job title settings and economic incentives on the research process. By formulating policies, we can ensure its positive impact, facilitating knowledge creation, sharing, and educational practices.

# Parallel Session: Academy-Industry Partnerships for Talent Cultivation

This parallel session explores the systemic integration of academia, industry, and technology in talent development. It focuses on pathways for technology transfer and commercialization within industry–university–research collaboration, the establishment of shared resource mechanisms for smart education, and the development of cross-sector joint laboratories that integrate education, technology innovation, and talent cultivation. The session also examines the design of collaborative innovation funds, open research initiatives, and sustainable partnership models to support smart education ecosystems, highlighting how technological empowerment can drive innovation, enhance talent pipelines, and foster mutually beneficial academy–industry collaboration.


**Group photo of the Guests of the Parallel Session: Academy-Industry Partnerships for Talent Cultivation**

**SPEAKERS**

**Mr. WANG Jianhua,** President, China Industry-University-Research Institute Collaboration Association (CIUR)

**Mr. SUN Xinzhang,** Deputy Director of Social Affairs and Emergency Management Department, The Administrative Center China's Agenda 21

**Mr. LEI Chaozi,** Executive Vice President, CIUR, Executive Deputy Director of the Expert Steering Committee for Science and Technology Services of the China Association of Higher Education, and former Director General of the Department of Science, Technology and Informatization of the Ministry of Education of China

**Prof. LIU Zhongchun,** Vice President of Renmin Hospital of Wuhan University, Chief of the National Key Research and Development Program project “Research and Application Demonstration of Key Technologies for Promoting Adolescent Mental Health”

**Prof. RUI Zhenhua,** UNESCO Chair on Carbon Neutrality and Climate Change Green Transition, China University of Petroleum

**Prof. Ratna Selvaratnam,** Expert, Ethics of Digital and Emerging Technologies, Globethics; Manager, Learning Technologies & Innovation, Edith Cowan University, Australia

**Mr. LIN Wei,** Senior Vice President of NetDragon Websoft Inc.

**Ms. MEI Chujiu,** Founder and Chief Editor of Jiemodui

**Mr. NAN Hao,** CEO of Luoyang Jingshi Ruidao Intelligent Technology Co., Ltd.

**Prof. Li Renliang,** Associate Dean, School of Social Development and Management Strategy, National Institute of Development Administration, Thailand

**Prof. Guanliang Chen,** Associate Professor, Monash University, Australia

**Prof. HU Zuohao,** School of Economics and Management, Tsinghua University

**Prof. LV Peng,** Director of the Social Computing Research Center of Central South University

**Dr. ZHANG Quan,** Chief Physician of Tianjin People’s Hospital

**Dr. LIANG Jing,** Co-founder of Squirrel Ai Learning

**Ms. Wang Zhuo,** General Manager of Education Industry, Beijing Unicom

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**MODERATORS**

**Prof. SUN Genban,** Director of the Intellectual Property Management and Research Achievements Transformation Office of Beijing Normal University, Assistant to Dean of the School of Chemistry

**Prof. TONG Lili,** Faculty of Education, Beijing Normal University; Deputy Director of National Engineering Research Center of Cyberlearning and Intelligent Technology

**Prof. LV Peng,** Director of the Social Computing Research Center of Central South University

## Deep Collaboration Across Government, Industry, Academia, Research, Application, and Finance to Drive Coordinated Mechanisms

In the opening remark, **Mr. WANG Jianhua,** President, China Industry-University-Research Institute Collaboration Association, highly praised the leading position, rigorous attitude, and positive role of the "China Smart Education Industry-Academia-Research Collaborative Innovation Platform“ established by Beijing Normal University in promoting the transformation of university research achievements into industrial applications. He introduced the Association‘s work in exploring the establishment of joint laboratories for industry, academia, and research, as well as the support mechanisms for educational development. He called for deep and pragmatic cooperation among colleagues from government, industry, academia, and research,

**Mr. SUN Xinzhang,** Deputy Director of Social Affairs and Emergency Management Department, The Administrative Center China’s Agenda 21, introduced that the Center has supported 13 national projects in the smart education sector, covering typical scenarios such as digital literacy skills of teachers and students, the construction

of a smart environment, and the governance of digital education applications. It will continue to deepen the “four-chain integration” of the innovation chain, talent chain, industrial chain and capital chain, and help research units break through the key technological bottlenecks and broaden the path of results transformation.

## Dual Domestic and Global Expansion Models: Insights into Converting Soft Power into Impact

Promoting the role of artificial intelligence in transforming education, supporting the development of the digital economy and future industries, enhancing cybersecurity, and strengthening data security, AI algorithms, and ethical safety are strategic deployments outlined in the national blueprint. During the themed report session, participating experts and scholars focused on the deep integration and innovative applications of AI in various educational scenarios, discussing how collaborative mechanisms between industry, academia, and research can accelerate technology implementation and ecosystem development.

**Mr. LEI Chaozi,** Executive Vice President, CIUR, Executive Deputy Director of the Expert Steering Committee for Science and Technology Services of the China Association of Higher Education, and former Director General of the Department of Science, Technology and Informatization of the Ministry of Education of China, delivered a keynote speech titled "Adhering to the Integration of Science and Education, Promoting School-Enterprise Cooperation, Improving Educational Quality, and Serving High-Quality Development" through the innovative form of "digital twin." He proposed three directions for achieving high-quality development through the integration of science and education: First, focusing on talent cultivation; Second, addressing global disciplinary frontiers and major national needs in order to strive for significant original breakthroughs; Third, strengthening the deep integration of industry, academia, and research led by enterprises. He emphasized that building truly world-class disciplines and universities hinges on "cultivating top-notch innovative talents of international caliber in major technological innovation practices."


The Integration of Science Education and the Construction of High-Quality Universities

**Prof. LIU Zhongchun,** Vice President of Renmin Hosptial of Wuhan University, **Prof. RUI Zhenhua,** UNESCO Chair on Carbon Neutrality and Climate Change Green Transition, **Prof. Ratna Selvaratnam,** Head of Learning Technologies & Innovation, Edith Cowan University, Australia, **Mr. LIN Wei,** Senior Vice President of NetDragon Websoft Inc., **Ms. MEI Chujiu,** Founder and Chief Editor of Jiemodui, **Mr. NAN Hao,** CEO of Luoyang Jingshi Ruidao Intelligent Technology Co., Ltd., **Prof. Li Renliang,** Associate Dean, School of Social Development and Management Strategy, National Institute of Development Administration, Thailand, and **Prof. Chen Guanliang,** Associate Professor, Monash University, Australia, ITU-APT Member engaged in academic exchanges on various topics, including the early identification and precise intervention of AI-empowered adolescent mental health issues, green education empowering the sustainable development of energy universities, human-centered AI governance models, the role of EDA platforms and metaverse platforms in supporting education and teaching, innovative models for exporting educational services, promoting "from top journals to top chains," and the collaborative needs in Thailand to address multiple challenges such as data accuracy, critical thinking cultivation, digital divide, and moral frameworks in AI development, as well as the exploration of optimizing generative AI technology according to specific educational task requirements in Australia.

## Delivering Practical, High-Quality Outcomes to Elevate Ecosystem Value

During the Outcome Release, the parallel session co-chair **Prof. TONG Lili,** Faculty of Education, Beijing Normal University, together with **Ms. Huang Xuguang,** the director of the Subject Department at the Ministry of Education's Center for Educational Technology and Resource Development, **Ms. Chen Min,** a senior engineer at the China Academy of Information and Communications Technology, and **Mr. Li Jiaqi,** the assistant director of the Beijing Research Institute of iFlytek, introduced three achievements of the collaborative ecosystem between academia, industry, and research over the past year.

## Digital Education Product Monitoring Platform (Public Service Version)

First, there is the ***Digital Education Product Monitoring Platform (Public Service Version)***, which is supported by a key national research and development project. Following the completion of the internal research version in 2024, the public service version will be launched in August 2025. Guided by the AI4S development approach, this platform integrates behavioral data from five main categories of mainstream digital education applications: "intelligent agents - APPs - mini-programs - resource libraries - cloud platforms." It is designed for use in three major scenarios: policy implementation for government regulatory agencies, procurement decision-making for campus educational software, and international exchanges.



## MIIT Industry Standard: Telecomunications and Internet Services, Technical Requirements for the Protection of Users' Personal Information, Internet Education Services

The second is the ongoing " ***MIIT Industry Standard: Telecomunications and Internet Services, Technical Requirements for the Protection of Users' Personal Information, Internet Education Services***" This standard aims to regulate the collection of personal information, processing of learning data, and dissemination pathways of educational resources in digital education products, providing safeguards for the digital online learning environment.

## 2024 China Industry-Universtiy-Research Collaboration Association Award for Technological Innovation Achievements Issuance of Membership Certificates

Thirdly, the project titled "***Cross-modal Traceable Risk Intelligent Monitoring Platform Based on Data Evidence Symbiosis Experiment and Its Educational Governance Application***" jointly submitted by five units, was awarded the first prize for technological innovation achievements by the China Association for Promoting Industry-University-Research Cooperation. Certificates were presented to the representatives of the winning units on-site by Vice President **Mr. LEI Chaozi,** Deputy Director **Mr. SUN Xinzhang,** and **Prof. CHEN Guangju.**


The outcome release session simultaneously announced several initiatives initiated by the China Smart Education Industry-University-Research Collaborative Innovation Platform, which include the establishment of five major guidelines: "Support Mechanism for National Smart Education Public Service Platform", "Intelligent Network Construction Plan for Primary and Secondary Schools", "Vocational Education Training in Aerospace Interaction", "Long-term Operation Mechanism for Regional Industry-Education Integration Communities", and "Innovation Talent Cultivation for Strategic Emerging Industries".

## Panel Discussion

Focusing on " *Education with Love$^{AI}$: Sustainable Development of Algorithms* ", **Prof. HU Zuohao,** School of Economics and Management, Tsinghua University, **Prof. LV Peng,** Director of the Social Computing Research Center of Central South University, **Dr. ZHANG Quan,** Chief Physician of Tianjin People's Hospital, **Ms. LIANG Jing,** Co-founder of Squirrel Ai Learning, Doctor of Intelligent Science and Systems, and **Ms. Wang Zhuo,** General Manager of Education Industry, Beijing Unicom, engaged in cross-border dialogues. They deeply analyzed the application bottlenecks and practical transformation paths of educational AI algorithms, how algorithm design can avoid the dissipation of

"educational temperature" by "technological rationality", the algorithm transparency, fairness and sustainable development in digital education products, and the construction of the collaborative ecological mechanism of industry-university-research in promoting the healthy and effective use of algorithms. The guests respectively shared their experience and insights from the perspectives of teaching, production, learning, research, medicine and application in algorithm design, technology development, landing and product application promotion, providing effective suggestions for educational governance and sustainable development.


**Photos from the Panel Discussion "Education with Love$^{AI}$: Sustainable Development of Algorithms "**

*The Parallel Session: Academy-Industry Partnerships for Talent Cultivation was organized by National Engineering Research Center of Cyberlearning and Intelligent Technology, National Key Laboratory of Virtual Reality Technology and System, China Smart Education Industry-University-Research Collaborative Innovation Platform, Guangzhou AVA Electronics Technology Co., Ltd., ITU-Asia Pacific Advanced Training Centre, National Institute of Development Administration, Thailand, and Guoxin Culture, with the support of Beijing Normal University Technology Group.

This parallel session was jointly moderated by Prof. SUN Genban, Director of the Intellectual Property Management and Research Achievements Transformation Office of Beijing Normal University, Assistant to Dean of the School of Chemistry, Prof. TONG Lili, Faculty of Education, Beijing Normal University; Deputy Director of National Engineering Research Center of Cyberlearning and Intelligent Technology and Prof. LV Peng, Director of the Social Computing Research Center of Central South University.

## Key Takeaways

- The three directions of "realizing high-quality development through the integration of science and education" are: first, adhering to talent training as the core; second, facing the world's disciplinary frontiers and the country's major needs, and striving to achieve major original breakthroughs; and third, strengthening the enterprise-led deep integration of industry, academia and research.
- Promoting AI-assisted educational change, facing the digital economy and future industrial development, strengthening network security, reinforcing data security, AI algorithms and ethical security is a strategic deployment of the Strong Nation Program. The experts and scholars attending the keynote report session focused on the deep integration and innovative application of AI in multiple scenarios of education, and explored how the mechanism of industry-university-research synergy can accelerate the landing of technology and the construction of ecology.
- In the era of change, the change of the education model, each of us, not to say that the narrow sense of education is the broad sense of education, we have to carry out "re-education", so that they re-mastered the old, that is, everyone, including the social structure of knowledge needs to be accompanied by a heart attack.
- Emotional class is impossible to be canceled by human beings, so the human teacher's practitioners of parental care, care, interaction is never possible to replace, so the education industry in the AI users in all walks of life should be perfectly combined with AI, so that our children are more warm and effective learning.
- The future of artificial intelligence, no matter how good, it is more of a knowledge value transfer, people more people with people emotional links, if you find out earlier the emotional problems between them, perhaps on this matter like sex may have longer extension
- The more digital era, the more AI era the role of people is more and more important. ai through the algorithmic data to your alternative, decision-making time you have to be better than the algorithm in order to decide out.

# Parallel Session: Reimagining Lifelong Learning in the Digital Age

This parallel session convenes experts and scholars from open and distance learning institutions, higher education institutions, the corporate sector, and international organizations worldwide to examine how digitalization and artificial intelligence are reshaping lifelong learning systems. The discussions focus on advancing inclusive, equitable, and sustainable models of lifelong learning, and on jointly envisioning and promoting a renewed global landscape for lifelong learning in the digital age.


Group Photo of Guests from Parallel Session: Reimagining Lifelong Learning in the Digital Age

## SPEAKERS

**Mr. ZHANG Shaogang,** Supervisory Board Chair, China Association For Educational Technology (CAET); Former Chair, The Academic Committee and Research Fellow at the Open University of China

**Ms. Isabell Kempf,** Director, UNESCO Institute for Lifelong Learning (UIL)

**Ms. Torunn Gjelsvik,** Secretary-General, ICDE

**Prof. Fan Xianrui,** Vice President, The Open University of China

**Prof. Mário Franco,** President, Millennium@EDU Sustainable Education; Associate Professor, Beira Interior University, Portugal

**Prof. Ahmad Izanee Awang,** President/Vice Chancellor, Open University Malaysia (OUM)

**Mr. Maxim Jean-Louis,** President and CEO, Contact North | Contact Nord, Canada

**Prof. Elijah I. Omwenga,** Vice Chancellor, Open University of Kenya

**Mr. CHEN Hong,** Senior Vice President, NetDragon Websoft Inc., China; CTO, Smart Learning Institute of Beijing Normal University

**Dr. Cherno Omar Barry,** UNESCO Chair on Teacher Training, Digital Learning, and Assessment; President/Vice Chancellor, International Open University, Gambia

**Dr. Komhiol Teng Waninga,** Vice-Chancellor, University of Goroka, Papua New Guinea

**Prof. Santhi Raghavan,** Vice President/ Deputy Vice-Chancellor (Learner Experience and Technology), Open University Malaysia (OUM)

**Prof. Chakrapani Ghanta,** Vice-Chancellor, B. R. Ambedkar Open University

**Prof. Aras Bozkurt,** Professor, Anadolu University, Turkey

**Dr. Som Naidu,** Executive Editor, Distance Education

**Prof. Ahmed Tlili,** Associate Professor, Beijing Normal University; Co-Director of Lab of AI Governance and Planning in Education

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**MODERATORS**

**Prof. FENG Xiaoying,** School of Educational Technology, Faculty of Education, Beijing Normal University; Director of the Key Laboratory of Learning Design and Learning Analytics, Beijing Normal University

**Prof. Ahmed Tlili,** Associate Professor, Beijing Normal University; Co-Director of Lab of AI Governance and Planning in Education

**Ms. Torunn Gjelsvik,** Secretary-General, International Council for Open and Distance Education (ICDE)

## Opening Remark: Opportunities and Challenges of Lifelong Learning in the Digital Age

**Mr. ZHANG Shaogang,** Supervisory Board Chair of CAET and Former Deputy Secretary of the Open University of China, said in his speech that digitization has seamlessly integrated the physical and virtual worlds, profoundly transforming the educational ecosystem. Teachers, traditionally regarded as cognitive authorities, are evolving into learning designers, data interpreters, and emotional companions; while students, as digital natives, are navigating learning trajectories that span both virtual and physical realms. He emphasized that scenario-based lifelong learning has become the new normal, and the internationalization of digital education is accelerating. The use of digital avatars to achieve instant translation of courses in multiple languages is steering the global learning ecosystem toward greater inclusivity and efficiency.

**Prof. FENG Xiaoying,** Professor of the School of Educational Technology of Beijing Normal University, moderated the speech session. She emphasized that this conference not only addresses issues of educational equity and quality but also profoundly reshapes the foundational framework of the next-generation learning ecosystem, holding significant strategic importance for global educational development. She expressed her hope that participating experts would collaborate to pioneer innovative approaches in key areas such as human–machine collaboration, open resources, and learning certification, thereby contributing new ideas and solutions to advance the digital transformation and upgrading of the global lifelong learning system.

**Ms. Isabell Kempf,** Director of the UNESCO Institute for Lifelong Learning (UIL), delivered a speech via video. She emphasized that theintegration of AI and lifelong learning has become a reality, calling on the international community to effectively guarantee digital inclusion, foster critical literacy, and ensure equitable access to learning technologies. She reiterated that lifelong learning should be recognized as a fundamental human right, advocating for the development of a learner-centered digital infrastructure that combines human-machine collaboration and open-source governance. She also stressed the need to center marginalised communities in educational policy priorities.


Photo of Ms. Isabell Kempf's video report

## Keynote Speech: Intelligent Technology Driving Innovation in Lifelong Education

**Ms. Torunn Gjelsvik,** Secretary-General of the ICDE, pointed out that significant challenges remain in achieving quality education for all. She stressed that lifelong learning is a fundamental human right. However, approximately one-third of the global population still lacks Internet access, and the digital divide hinders educational equity. She noted that ICDE is committed to building an inclusive, scalable, and sustainable education system by promoting open educational resources, developing micro-credentialing, and reinforcing cross-department collaboration. She also appealed to the international community to work together to break down policy and resource barriers, ensuring quality learning opportunities for all.

**Prof. Fan Xianrui,** Vice President of the Open University of China, shared China's practices in developing a ubiquitous and accessible lifelong education system. These efforts encompass the development of the "four platforms and one support" service network, AI-driven transformation of teaching processes, innovation in learning models, and reform of assessment systems. Looking forward, she indicated that the focus will be on fostering a new digital education ecosystem, innovating educational paradigms, building new forms of digital universities, and deepening international cooperation to promote larger-scale, more personalized, and higher-quality lifelong learning.

**Prof. Mário Franco,** Founder and President of Millennium@EDU Sustainable Education, emphasized in his keynote speech that technology and humanity are "two sides of the same coin" and technology is not merely a neutral instrument but a powerful force that profoundly shapes human behavior and society. He underscored the essential role of teachers in harnessing digital technologies to empower lifelong learning, while ensuring educational inclusivity and ethical transparency. He further advocated for the development of AI algorithms that respect cultural diversity to support lifelong learning for all and contribute to the achievement of sustainable education goals.

**Prof. Ahmad Lzanee Awang,** President/Vice Chancellor of the Open University Malaysia (OUM), shared OUM's practices in promoting lifelong learning. These efforts include the use of ODL models, AI-driven learning management systems (LMS), micro-credential cooperation mechanisms, and low-data access strategies. He emphasized that OUM is committed to becoming the ASEAN Lifelong Learning Center and delivering seamless, borderless, and personalized AI education experiences for all learners.


**Mr. Maxim Jean-Louis,** President and CEO of Contact North | Contact Nord, Canada, put forward ten key action initiatives. These include moving beyond fear, seizing five opportunities presented by AI, co-designing with AI, restructuring assessment systems, establishing trust-based governance, strengthening educational accessibility, increasing investment in teacher training, empowering learners as central agents of the learning process, ensuring equitable access to infrastructure, and promoting innovation and embracing uncertainty with humility and openness.

**Prof. Elijah I. Omwenga,** Vice Chancellor of the Open University of Kenya, introduced the university's practices in leveraging AI to promote inclusive digital education. These include the use of AI teaching assistants (AI TAs), blockchain-based micro-credentials, and intelligent management platforms. These efforts have resulted in a 15% reduction in the dropout rate and significantly enhanced educational accessibility and resource allocation efficiency. He said that the Open University of Kenya is striving to develop a scalable and replicable digital education model to provide inclusive educational solutions for Africa and the Global South.

**Mr. CHEN Hong,** Senior Vice President of NetDragon Websoft Inc., China, showcased the company's AI-powered lifelong learning platform. This platform is designed to address key challenges such as the disconnect between education and real-world practice, as well as the growing urgency of continuing skills upgrading. He noted that NetDragon Websoft is building an AI-driven content production line to generate immersive, large-scale courses with movie-quality gamification. He underscored that AI represents not only a challenge but also a pivotal solution for realizing inclusive and personalized lifelong education, and is shaping a new borderless learning ecosystem.

**Dr. Cherno Omar Barry,** President of International Open University, Gambia, pointed out that sub-Saharan Africa is facing a severe situation with 98 million children out of school and a shortage of 15 million teachers. He advocated for a people-centered approach to smart education, utilizing cost-effective technologies such as AI, offline learning platforms, and SMS-based courses to extend the reach of quality education. Barry mentioned that by reducing tuition fees, providing extensive scholarship opportunities, and engaging in international collaboration, the university has made education affordable to learners from 94 countries, with 52% being women, effectively promoting educational equity and inclusive development.





## Panel Discussion: Inclusive, Scalable, and Sustainable Future of Education

During the panel discussion, experts and scholars from Malaysia, China, India, Papua New Guinea, Türkiye, and other countries engaged in in-depth discussions on topics such as inclusive education, technology integration, business model innovation, and sustainable development. They ultimately reached a consensus: lifelong learning is an inevitable choice in the digital age; it is necessary to build a people-oriented, inclusive, intelligent, and sustainable global lifelong learning ecosystem through cross-sector collaboration, policy innovation, technology empowerment, and open resources.

**Prof. Santhi Raghavan,** Vice President/ Deputy Vice-Chancellor (Learner Experience and Technology) of Open University Malaysia (OUM), shared OUM's practices to promote inclusive education. These efforts include the use of highly interactive learning materials, the implementation of the ECRM system, enrollment for all age groups, and tuition discounts for learners with disabilities—all of which have contributed to a high retention rate of 87%.

**Prof. Ahmed Tlili**, Associate Professor of Beijing Normal University, emphasized that inclusive education needs to be achieved through interdisciplinary cooperation, cultural adaptation, the use of open educational resources, and the development of intelligent agents to meet the diverse needs of learners.

**Prof. Chakrapani Ghanta,** Vice-Chancellor of B. R. Ambedkar Open University, introduced the university's 44-year educational practices in promoting social equity and inclusion through low-cost tuition, preferential policies for women and marginalised communities, and free education programs

The session was moderated by **Ms. Torunn Gjelsvik**, Secretary-General, International Council for Open and Distance Education.

**Dr. Komhiol Teng Waninga,** Vice-Chancellor of the University of Goroka, Papua New Guinea, education remains a core challenge for universities worldwide. This challenge encompasses a range of issues such as cultural expectations, gender imbalances, and the inclusion of special groups. As the sole normal training institution in the region, the university has achieved significant progress in advancing special education and increasing enrollment rates through facility upgrades.

**Prof. Aras Bozkurt,** Professor of Anadolu University, Türkiye, noted that the university has long adhered to a learner-centered design concept and incorporated AI and chatbot technology into its teaching ecosystem, serving more than one million students. He stressed that the application of technology should be deliberate, empowering students' autonomy through diverse learning materials and personalized path options to ensure that technology serves their authentic learning needs.

**Dr. Som Naidu,** Executive Editor of Distance Education, called for legislative measures to mandate the use of open educational resources (OER) in all courses. He pointed out that without a clear definition and legal support for OER, all visions of personalized learning and collaborative knowledge creation will remain challenging.

*The Parallel Session: Reimagining Lifelong Learning in the Digital Age was jointly organized by the International Council for Open and Distance Education (ICDE), the Open University of China, Asia e University, Smart Learning Institute of Beijing Normal University, and NetDragon Websoft Inc.

## Key Takeaways

- Scenario-based lifelong learning has become the new normal, and the internationalization of digital education is accelerating. Utilizing educational digital humans for real-time translation of multilingual courses is driving the global learning system towards a more inclusive and efficient direction.
- The integration of artificial intelligence and lifelong learning has become a reality; lifelong learning should be regarded as a basic human right. We need to build a learner-centered digital infrastructure that combines human-machine collaboration with open-source governance, placing marginalized groups at the core of educational policy concerns.
- ICDE is dedicated to creating an inclusive, scalable, and sustainable education system by promoting open educational resources, developing micro-credential certifications, and strengthening cross-sector collaboration.
- In the future, the focus will be on advancing the construction of a new ecosystem for digital education, innovating educational paradigms, developing new forms of digital universities, and deepening international cooperation to promote larger-scale, personalized, and high-quality lifelong learning development.
- In the process of leveraging digital technology to empower lifelong learning, the crucial role of teachers should be fully emphasized to ensure educational inclusivity and ethical transparency. There is a call to develop artificial intelligence algorithms that respect cultural diversity to support universal lifelong learning and contribute to the achievement of sustainable education goals.
- AI is not only a challenge but also a key solution for achieving inclusive and personalized lifelong education, shaping a new learning ecosystem without boundaries.
- Smart Education should be centered on people and utilize low-cost technologies such as AI, offline learning platforms, and SMS courses to expand access to quality education.
- Inclusive education requires various approaches, such as interdisciplinary collaboration, cultural adaptation, open educational resources, and the development of intelligent agents, to meet the diverse needs of learners.
- Inclusive education remains a core challenge facing universities globally, involving multiple dilemmas such as cultural expectations, gender imbalance, and the acceptance of special groups. The education system must assist everyone in adapting to this transformation, ensuring that no one is left behind in a rapidly changing world.
- It is essential to emphasize that the application of technology should avoid blind practices; by providing diverse learning materials and personalized pathways, students are empowered to take ownership of their learning, ensuring that technology serves genuine educational needs.
- There is a call for legislative measures to mandate the use of open educational resources (OER) in all curricula. Without a clear definition of OER and legal support, the vision for personalized learning and knowledge co-creation will be difficult to achieve.

# Parallel Session: Sharing Best Practices in Smart Teaching

This parallel session brought together leaders from Chinese and international education authorities, distinguished experts and scholars, and exemplary frontline teachers. The discussions focused on forward-looking topics such as the core competencies and development pathways of exemplary teachers, the construction of smart classroom ecosystems integrating large and small screens, strategies and practices through which exemplary teachers drive innovation in smart classrooms, and the ways in which smart classrooms can further empower their professional growth.


Photo of Parallel Session: Sharing Best Practices in Smart Teaching

**SPEAKERS**

**H.E. Prof. Sherif Kishk,** Assistant to the Minister for Smart Governance, Higher Education and Scientific Research, Egypt

**Prof. QI Junguo,** Dean, College of Continuing Education and Teacher Training, Beijing Normal University, China

**Dr. Sarena Shivers,** Board of Directors, International Society for Technology in Education (ISTE);CEO/Executive Director, Michigan's Talent Together

**Mr. ZHOU Wenyang,** Director, Public Service Bureau of Chongqing High-Tech Zone, China

**Mr. HUANG Junshan,** President, Changsha Academy of Educational Sciences, China

**Ms. Jyoti Rahaman,** Project Manager / Project Lead, Education Innovation, Education Department of the Asia-Europe Foundation (ASEF), Bangladesh

**Mr. LI Shuyu,** Special-Grade Teacher, Beijing Middle School, China

**Mr. WU Haiming,** Founder and CEO, References-AI Technology (Beijing) Co., Ltd., China

**Prof. Noyuri Mima,** Professor, School of Systems Information Science, Future

University Hakodate, Japan

**Mr. JIAO Zhenzhou,** Vice Principal, Beijing Changping No. 2 Experimental Primary School, China

**Mr. ZHU Yu,** Teacher, Hangzhou Linping District Education Development Research Institute; Leading Subject Teacher, Ministry of Education, China

**Ms. ZHENG Shengmei,** Teacher, Nanning Yuewan Road Primary School; Leading Subject Teacher of Ministry of Education, China

**Prof. LI Yushun,** Faculty of Education, Beijing Normal University, China

**Students:**

Beijing Changping No. 2 Experimental Primary School (Fourth Grade)

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**MODERATORS**

**Prof. FU Qian,** Vice Dean, School of Education Technology, Beijing Normal University, China

**Ms. CHEN Wen,** Director, Discipline Teacher Training Center, School of Continuing Education and Teacher Training, Beijing Normal University, China

During the opening remarks**, H.E. Prof. Sherif Kishk,** Assistant to the Minister for Smart Governance at Egypt's Ministry of Higher Education and Scientific Research, highlighted the urgency for education systems to take proactive steps toward transformation amid the rapid global shifts driven by artificial intelligence. He noted that the role of teachers is undergoing a fundamental change—from traditional transmitters of knowledge to facilitators who help shape students' holistic competencies. He emphasized that Egypt is actively implementing its National Strategy for 2030 and advancing a comprehensive digital transformation agenda, including initiatives such as smart campus development and digital content creation, with the aim of enhancing teachers' overall capacity and strengthening their digital literacy.

**Prof. QI Junguo,** Dean of the College of Continuing Education and Teacher Training at Beijing Normal University, underscored that teachers are the driving force behind the digital transformation of education, and exemplary teachers play an even more pivotal role in leading classroom reform and educational innovation. He noted that BNU has long aligned its work with national education strategies and assumed the responsibility of advancing teachers' professional development. In recent years, the university has launched a series of initiatives on "AIGC-empowered teacher training," systematically building a digital literacy curriculum framework to support teachers in making the essential shift from technology users to true innovators in education.

## Keynote Speech

In the Keynote Speech session, **Dr. Sarena Shivers,** Member of the Board of Directors of the International Society for Technology in Education (ISTE) and CEO/Executive Director of Michigan's Talent Together, emphasized that artificial intelligence provides essential support for personalized learning pathways. She stressed that teacher training must place greater focus on AI literacy and digital skills, enabling educators to use AI in safe and responsible ways to enhance teaching quality. Drawing on her institution's instructional practices at the University of Science and Technology Beijing, she shared how personalized and interactive approaches have effectively improved classroom learning experiences.

**Mr. ZHOU Wenyang,** Director of the Public Service Bureau of Chongqing High-Tech District, introduced the district's practices and achievements in advancing education digitalization centered on the "S2C" (Student-to-Course) model. With the goal of establishing a leading education hub in western China, the district has systematically built the "1345" smart education framework, promoting deep pedagogical transformation through optimized digital infrastructure, consolidated curriculum resources, and multidimensional assessment systems. It has also innovatively implemented the "Five Learning Classroom" model, leveraging AI to empower lesson preparation, instruction, research, and evaluation, thereby fostering personalized learning and precision teaching.

**Mr. HUANG Junshan,** President of the Changsha Academy of Educational Sciences, shared Changsha's experience as a national demonstration zone for smart education and a pilot area for AI-enhanced teacher development. He introduced the region's "Six-Dimensional" Quality Classroom model, which emphasizes alignment of learning objectives, structured learning content, embodied teaching strategies, quality development of thinking, intelligent teaching tools, and a vibrant classroom culture. He also highlighted multiple initiatives to cultivate a new regional educational ecosystem empowered by AI, focusing on four key areas: environment development, research-driven guidance, training and capacity building, and promotion of practical applications.

**Ms. Jyoti Rahaman,** Senior Project Manager and Head of Education Innovation at the Asia-Europe Foundation (ASEF), highlighted that while AI can enhance educational efficiency, overreliance on algorithms may undermine human agency. She proposed a "Five-Step Empowerment Path" for teachers, which includes understanding AI at one's own pace, engaging in collaborative team learning, applying technology in practice, organizing face-to-face exchanges, and leveraging exemplary teachers to influence wider communities—aimed at strengthening both teacher confidence and professional agency.


**Ms. LI Shuyu,** Special-grade Teacher at Beijing Middle School, shared her team's experience in project-based learning in junior high school mathematics, using the "Cube Shadows in Sunlight" project as an example, supported by generative AI. The project established an intelligent framework encompassing dynamic goal mapping, adaptive task sequences, and multimodal assessment, guiding students to gradually construct mathematical models with technological support. She also cautioned against potential issues such as AI-induced goal bias and overreliance on technology, emphasizing that technology should serve to inspire thinking rather than replace the essence of education.

**Mr. WU Haiming,** Founder and CEO of References-AI Technology, shared insights into the development and application of the "Super-Intelligent AI Teacher" system, approaching from a deconstruction of the teacher workflow. The system features precise subject understanding and strong interactive capabilities, covering student learning analysis, curriculum planning, lesson plan generation, Q&A support, and intelligent assessment. It has been implemented in multiple schools, providing 24/7 learning support and personalized assistance.

**Prof. Noyuri Mima,** Professor at the School of Systems Information Science, Future University Hakodate, Japan, proposed a dual-track approach to smart education integrating "AI literacy" and "human-centered learning design." She emphasized that AI literacy should encompass knowledge, skills, and values, with particular attention to cultivating attitudes of diversity, inclusiveness, sustainability, and ethical responsibility. Human-centered learning design, on the other hand, focuses on dialogue, inquiry, and action, incorporating principles of diversity, equity, inclusion, and opportunity, to ensure AI is applied in education in a more humane and responsible manner.

**Mr. JIAO Zhenzhou,** Vice Principal of Beijing Changping No. 2 Experimental Primary School, introduced the school's four-tier AI curriculum, which progresses from life perception, humanistic understanding, and thinking training to innovative practice. Through project-based learning—such as campus ecological protection and the development of assistive devices for the elderly—students collaborate with AI on real-world problems, strengthening their critical thinking, ethical awareness, and understanding of sustainable development.


## A Chinese Language Open Lesson Showcasing a New Paradigm of the "Teacher–AI–Student" Triadic Classroom

**Mr. ZHU Yu,** Leading Subject Teacher of the Ministry of Education at the Hangzhou Linping District, conducted a Chinese language demonstration lesson titled "The Secret of the Magic Gourd" with 30 students from Beijing Changping No. 2 Experimental Primary School, integrating AI tools into the classroom. By contrasting his own concise storytelling with the AI assistant "Doubao"'s more detailed narrative, Mr. Zhu guided students to explore how language, actions, and dialogue can enhance the vividness of a story. The lesson emphasized language practice, collaborative assessment, and technology-assisted learning, encouraging students to extract methods from the text and develop expressive skills through storytelling, exemplifying innovative teaching that deeply integrates humanities and technology.

**Ms. ZHENG Shengmei,** a teacher at Nanning Yuewan Road Primary School, used Mr. Zhu's lesson as an example to explain the role of AI in helping students build story logic, engage in creative work, and conduct self- and peer-assessment. She also introduced how her studio has applied AIGC as a "learning mentor" in project-based learning initiatives such as Birds' Paradise, supporting task decomposition, solution generation, and knowledge construction. She noted that the integration of AIGC into the classroom is reflected primarily in three areas: engaging in trained dialogues with AI to collect and process information; using AI to solve problems and enable creative expression; and promoting personalized learning through diversified assessment.

Photos of the Demonstration Lesson

**Prof. LI Yushun** of the Faculty of Education, Beijing Normal University, synthesized the two model lessons and the teachers' reflections to outline the profound changes AIGC is bringing to classroom ecosystems. He noted that education is shifting from traditional knowledge transmission toward a new "teacher–AI–student" triadic model of collaborative learning, in which AI has evolved from a supporting tool into an educational actor with generative and co-creative capabilities. Correspondingly, the role of teachers is also transforming—from transmitters of knowledge to designers of cognitive architecture, facilitators of socio-emotional development, and generators of diagnostic assessment.

This parallel session was jointly moderated by Prof. FU Qian, Vice Dean, School of Education Technology, Beijing Normal University, and Ms. CHEN Wen, Director, Discipline Teacher Training Center, School of Continuing Education and Teacher Training, Beijing Normal University.

*The Parallel Session: Sharing Best Practices in Smart Teaching was organized by the UNESCO International Institute for Capacity Building in Africa (UNESCO IICBA), International Society for Technology in Education (ISTE), School of Continuing Education and Teacher Training, Beijing Normal University, Smart Learning Institute of Beijing Normal University and References-AI Technology (Beijing) Co., Ltd.

## Key Takeaways

- The role of teachers is undergoing a fundamental change—from traditional transmitters of knowledge to facilitators who help shape students' holistic competencies.
- Teachers are the driving force behind the digital transformation of education, and exemplary teachers play a pivotal role in leading classroom reform and educational innovation.
- Artificial intelligence provides essential support for personalized learning pathways, and teacher training must place greater focus on AI literacy and digital skills.
- Education is shifting from traditional knowledge transmission toward a new "teacher–AI–student" triadic model of collaborative learning.
- Technology should serve to inspire thinking rather than replace the essence of education, with caution against goal bias and overreliance on AI.

# Parallel Session: Digital Strategies for Educational Development in Schools and Regions

This parallel session focused on exploring integrated, intelligent, and internationalized pathways for regional and school-level education. It provided an in-depth discussion on key topics such as digital governance models, innovative practices in educational transformation, applications of smart education public service platforms, and the empowerment of schools by educational technology enterprises. The session aimed to bring together diverse expertise, share advanced experiences, and collaboratively address challenges, opening new avenues for the high-quality development of regional and school education.


**Group Photo of Guests from Parallel Session: Digital Strategies for Educational Development in Schools and Regions**

**SPEAKERS**

**Mr. SHAN Zhiguang,** Director, Department of Informatization and Industrial Development, National Information Center; Member, Expert Advisory Committee on Education Digitization, Ministry of Education, China

**H.E. Ms. Aminath Nada Mohamed,** Deputy Minister of Higher Education, Labor, and Skills Development, Maldives

**Mr. HE Yun, Director,** Shanxi Provincial Educational Technology and Assessment Monitoring Center, China

**Prof. WU Di,** Central China Normal University; Executive Deputy Director, Educational Informatization Strategy Research Base (Central China), Ministry of Education, China

**Mr. Tigran Yepoyan,** Chief of Unit of ICT in Health Education, UNESCO IITE

**Ms. Ekaterina Khaustova,** Head of the International Programme, Investment in the Future Charitable Foundation

**Mr. LIU Chang,** Founder and CEO, 17 Education & Technology Group Inc.

**Mr. LIU Hongxia,** Director, Education Bureau of Shuangliu District, Chengdu City, China

**Mr. PAN Dongbiao,** Second-Level Inspector, Education Bureau of Nanjing City Party Leadership, China

**Mr. DU Shulin,** Director, Liangjiang New Area Education Bureau, Chongqing, China

**Ms. LIN Wei,** Dean, Education Institute of Minhang District, Shanghai, China

**Ms. ZHANG Tian,** Principal, Shazitang Primary School, Yuhua District, Changsha City, China

**Mr. HONG Nianguo,** Deputy Director, Education and Sports Bureau of Gushi County, Xinyang City, China

**Mr. HE Lijie,** Deputy Director, Education Bureau of Jinzhong City, Shanxi Province, China

**Mr. SHAO Huaqiang**, Deputy Director, Education Bureau of Liangxi District, Wuxi City, China

**Mr. WAN Ming,** Vice Principal, Shuangliu Middle School, Sichuan Province, China

**Prof. Christoph Meinel,** Founding President, German University of Digital Science; Managing Director, Hasso Plattner Institute, Germany

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**MODERATORS**

**Mr. Romeo Ramirez,** Senior Director, International Partnerships, International Society for Technology in Education (ISTE)

**Prof. ZHANG Zhizhen,** Associate Professor, School of Educational Technology, Faculty of Education, Beijing Normal University

**Mr. SHAN Zhiguang,** Director of Department of Informatization and Industrial Development at the National Information Center delivered the opening remarks. He emphasized that intelligent digitalization has evolved from a "multiple-choice question" into a "quick-response challenge" that determines the future competitiveness of education. Regional and school-level education represent the "last mile" for policy implementation and must pursue differentiated, personalized, and intelligent innovation to return to the essence of educational wisdom, ensure technology truly serves educational principles, and make digitalization a "new engine" for high-quality development.

**H.E. Ms. Aminath Nada Mohamed,** Deputy Minister of Higher Education, Labor, and Skills Development, Maldives, shared the Maldives' educational experiences. Facing dispersed island schools, the country urgently leverages virtual classrooms and online education to bridge the digital divide and ensure that every child has equitable access to quality educational resources. She called for strengthened global innovation and collaboration, emphasizing that technology must be embraced responsibly with a clear educational mission to collectively build more inclusive and connected future classrooms.

## Keynote Speech

**Mr. HE Yun,** Director of the Shanxi Provincial Educational Technology and Assessment Monitoring Center, presented Shanxi's approach under the theme "Smart Shanxi, Innovating the Future." He outlined a systematic path guided by policy, solid foundations, resource integration, and deepened application: building a provincial digital infrastructure based on 120 million education data records, continuously updating curriculum resources over five years,

and leveraging 550 national model cases to achieve province-wide impact. Over the next three years, 100 AI education centers will be established to ensure the benefits of digital education reach every classroom across the Taihang and Lüliang regions.

**Prof. WU Di,** Executive Deputy Director of the Educational Informatization Strategy Research Base (Central China), Central China Normal University, presented the "Five-Dimensional Empowerment for Regional Smart Education" framework. Centered on digital teacher profiles, the framework connects national, provincial, municipal, district, and school-level platforms, leveraging AI to enable precision teaching, intelligent governance, and lifelong learning. Five-year assessments in Ningxia show a gradual narrowing of the digital divide between urban and rural teachers, while Wuhan's "single login, multi-level integration" practice demonstrates that data integration can simultaneously enhance both education quality and equity.

**Mr. Tigran Yepoyan,** Chief of the ICT in Health Education Unit at UNESCO IITE, and **Ms. Ekaterina Khaustova,** Head of the International Programme at the Investment in the Future Charitable Foundation, jointly called for "going beyond technology to Uphold Humanity." Citing research from Yale University showing that 60% of experts are concerned AI may weaken human qualities, they advocated integrating emotional intelligence, mental health, and values education into digital curricula under the framework of "education environments that foster personal development." This initiative has been implemented in six countries, including Belarus and Kazakhstan, demonstrating that only the integration of technology and the humanities can truly shape learners for the future.


**Mr. LIU Chang,** Founder and CEO of 17 Education & Technology Group, showcased the value of regional teaching data through projects in Minhang, and Changsha. After three years of homework, classroom, and exam data collection, AI generates school-based question banks, real-time error explanations, and personalized learning paths. He also launched "17 Tongxue," a generative AI system integrating large models, deep learning, and multimodal understanding to upgrade teaching, classroom management, teacher development, and assessment. The launch also introduced the "Smart Education Solution and Artificial Intelligence Empowerment of 100 Districts, 1,000 Schools and 10,000 Teachers Public Welfare Program", which supports schools in adopting AI at low cost, enhancing equity, quality, and data-driven, personalized learning.

## Invited Speech

**Mr. LIU Hongxia,** Director of the Education Bureau of Shuangliu District in Chengdu, shared the district ’s experience in building a smart education ecosystem across five key domains. Shuangliu has developed an integrated district–school platform that connects public services, home–school collaboration, teacher development, student growth, and education governance. The system now processes over 100,000 online service requests annually, records an average of 1.3 home visits per student, and has increased teachers’ grading efficiency by 87%. By leveraging data at scale, the district has transformed long-standing governance challenges into precise, responsive, and student-centered services.

**Mr. PAN Dongbiao,** Second-Level Inspector of the Nanjing Municipal Education Bureau, reviewed Nanjing’s decade-long journey toward smart education. Beginning with the initial framework of “Eight Dimensions of Thinking” in 2015, the city advanced to building high-level smart campuses by 2023, characterized by intelligent environments and empowered teachers. In 2024, Nanjing established its Artificial Intelligence Education Research Center and launched the “Eight Initiatives and Six Goals,” using 100 schools and 100 scenarios as pilots alongside eight core AI applications. Together, these efforts are shaping Nanjing into a leading model for future education where humans and intelligent systems learn and grow together.

**Mr. DU Shulin,** Director of the Education Bureau of Chongqing Liangjiang New Area, presented the “1-2-3 architecture” grounded in Party-led governance and holistic intelligent management. The model features one regional education intelligence hub, two tiers of district–school governance centers, and three open ecosystems for content, technology, and services. To date, 77 national and municipal systems have been fully integrated, and 26 edtech companies have joined as ecosystem partners. Through a competitive “challenge-based” mechanism, schools are encouraged to propose and lead innovation projects, positioning Liangjiang as a rising hub for digital education in Western China.


**Ms. LIN Wei,** Dean of the Minhang District Education Institute in Shanghai, presented Minhang’s “dual-track model.” The Zingo intelligent agent enables a full data loop across homework, classroom instruction, and assessment, while a Scientist AI agent supports the cultivation of high-level innovative talent—offering students barrier-free access to project guidance through digital avatars of 30 scientists. The district has already accumulated billions of learning records, and plans to integrate its “Five-Dimension Integrated Evaluation” system to link personalized learning with long-term student development and career planning.

**Ms. ZHANG Tian,** Principal of Shazitang Primary School in Yuhua District, Changsha, showcased the school’s data-informed “critical thinking classroom.” Built on a digital foundation of “one space, two centers, and multiple applications,” the model integrates smart paper-and-pen tools across the entire teaching process, enabling real-time data collection to support precise instructional adjustments. Classroom interaction has increased by 40%, marking a shift from experience-driven to data-guided teaching and from outcome-based assessment to value-added learning. The approach now serves as a replicable model for all 14 schools in the group.

**Mr. HONG Nianguo,** Deputy Director of the Education and Sports Bureau of Gushi County, Henan Province, outlined the county's "three-in-one" smart education ecosystem. Anchored in national platforms, AI-powered tools, and data-driven applications, the model covers the full teaching cycle, boosting teacher lesson-preparation efficiency by 58% and improving students' mastery rates by 39%. Seven urban–rural learning communities now share more than 1,200 high-quality lessons, and the county's academic excellence rate has risen by 15% in just one year—offering a low-cost, high-impact pathway for digital equity in large-population counties.


**Mr. HE Lijie,** Deputy Director of the Education Bureau of Jinzhong City, Shanxi Province, presented Jinzhong's AI-powered interdisciplinary project-based learning initiative. Centered on Beijing Normal University's "Interdisciplinary Project-Based Learning Design AI Agent," the program establishes a three-tier collaborative model of expert guidance, regional coordination, and school-level practice. Fifty-one pilot schools have implemented the approach, enabling teachers to evolve from tool users to creators, while students tackle real-world problems to integrate subjects and enhance core competencies—building an educational ecosystem where each school has its unique strengths, every teacher designs skillfully, and every student enjoys inquiry.

**Mr. SHAO Huaqiang,** Deputy Director of the Education Bureau of Liangxi District, Wuxi, outlined the district's path to "AI for Every Teacher." Using the enterprise WeChat digital platform, 149 schools, 9,000 teachers, and 100,000 parents are connected. In classrooms, ink-screen tablets and the DeepSeek large model enable contextualized teaching and personalized learning. Post-class, AI grading for primary students and assignment data analysis for secondary students are fully implemented. Through the "3+2" teacher digital literacy advancement program and two consecutive years of AI-focused policies, teaching, research, governance, and safety are managed in a unified digital system.

**Mr. WAN Ming,** Vice Principal of Shuangliu High School in Sichuan Province, shared the school's experience in digital transformation under the theme "Dual-Track Collaboration, Full-Region Integration." AI-based classroom behavior analysis increased student interaction from 18.3% to 43.5%, while smart paper-and-pen tools improved homework grading efficiency by 60% and reduced detection of student psychological issues by 37%. Through the "Curriculum on Cloud, Teachers Online" approach across 149 alliance schools, the "Seven-Element Classroom" 5C model was implemented, accelerating the adoption of a fully integrated, data-driven district-and-school education model.

**Prof. Christoph Meinel,** Founding President of the German University of Digital Science, outlined the vision for Germany's first fully digital university. He emphasized that the rapid obsolescence of workforce skills and the global shortage of "digital transformers" require universities to shift from campus-based, library-centered models to Internet-centric "University 3.0." Through MOOCs, challenge-based learning, and globally accessible degree programs, the German University of Digital Science aims to deliver high-quality higher education "anytime, anywhere," advancing inclusive lifelong learning in the digital age.


The moderators of this parallel session are Mr. Romeo Ramirez, Senior Director, International Partnerships, International Society for Technology in Education (ISTE); and Prof. ZHANG Zhizhen, Associate Professor, School of Educational Technology, Faculty of Education, Beijing Normal University.

*The Parallel Session: Digital Strategies for Educational Development in Schools and Regions was jointly organized by the National Engineering Research Center of Cyberlearning and Intelligent Technology and Educational Informatization Strategy Research Base, Ministry of Education, P.R. C (Beijing, Central China and Northwest China) , with support of 17Edtech.

## Key Takeaways

- Intelligent digitalization has evolved from a “multiple-choice question” into a “quick-response challenge” that determines the future competitiveness of education, with regional and school-level education representing the “last mile” for policy implementation.
- Leveraging virtual classrooms and online education is essential to bridge the digital divide, ensuring equitable access to quality educational resources for all students, especially in dispersed or remote areas.
- Building provincial and district digital infrastructures, integrating AI in teaching, and continuously updating curriculum resources enable precision teaching, intelligent governance, and data-driven learning.
- AI-powered interdisciplinary project-based learning allows teachers to evolve from tool users to creators, while students tackle real-world problems to integrate subjects and enhance core competencies.
- Unified digital platforms connecting schools, teachers, and parents, combined with AI tools for contextualized teaching, grading, and personalized learning, transform governance challenges into responsive, student-centered services and support scalable, equitable digital education.

# Parallel Session: Smart Reading

The parallel session “Smart Reading: Love Reading, Read Well, Read Wisely” was organized under the guidance of the Chinese Academy of Press and Publication and jointly hosted by New Reading Magazine, Beijing Normal University Publishing Group, and the Smart Learning Institute of Beijing Normal University. The session focused on building smart reading platforms, developing leveled reading standards, and implementing book-rich campus initiatives, providing a forum for in-depth discussion on promoting literacy and cultivating a reading culture.


**Photo of Parallel Session: Smart Reading**

**SPEAKERS**

**Mr. FENG Shixin,** Dean, Chinese Academy of Press and Publication

**Mr. Kelvin Mambwe,** Permanent Secretary, Ministry of Education, Zambia

**Mr. ZHENG Wei,** Director, Publicity Promotion and Education Division, Department of Language Application and Administration, Ministry of Education, P.R. China

**Mr. WANG Fu,** Executive Deputy Director, Working Committee for Caring for the Next Generation, Ministry of Education, P.R. China

**Prof. Philip YU Leung Ho,** Professor, Department of Mathematics and Technology; Director, Data Science and Artificial Intelligence Research Facility, The Education University of Hong Kong, China

**Mr. ZHANG Jun,** Deputy Director, National Library, China

**Ms. YIN Lili,** Secretary-General, Laboratory for the Development and Application of Graded Reading Standards for Children and Young Adults, China Book Distribution Association

**Mr. LI Tao,** Deputy General Manager, Qingdao Publishing Group

**Mr. FAN Rulai,** Director, Primary and Secondary School Library and Reading Department, Center for Educational Technology and Resource Development, Ministry of Education, China

**Mr. CAI Jiusheng,** Director, Nanchang Education Evaluation Monitoring and Technology Promotion Center

**Mr. ZHANG Wei,** Director of Library, Haidian Institute of Educational Sciences, Beijing

**Mr. NIE Lianghong,** Principal, Changsha Zhiyuan Primary School

**Prof. Colin de la Higuera,** UNESCO Chair for Open Educational Resources and AI at Nantes Université

**Mr. ZHAO Shanming,** General Principal, Nonglin Shuanglang Primary School Education Group, Pengjiang District, Jiangmen City, Guangdong Province

**Ms. ZHANG Yuan,** Special Grade Teacher, Beijing Middle School

**Ms. DOU Meng,** No. 8 Junior High School, Gushi County, Henan Province

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**MODERATORS**

**Mr. CUI Haijiao,** Vice Dean, Chinese Academy of Press and Publication

**Ms. LU Yanmin,** Editor-in-Chief, New Reading Magazine

**Mr. FENG Shixin,** Dean of the Chinese Academy of Press and Publication, emphasized that promoting nationwide reading requires clarifying its fundamental value, strengthening top-level design, and advancing both theoretical and practical exploration. He highlighted the importance of cultivating a new generation of readers in the digital era, urging the active exploration of new reading methods. This includes preserving the reader's agency in human–machine collaborative contexts, fostering critical thinking amid the information deluge, and integrating traditional and emerging media channels while upholding cultural foundations, ultimately guiding the future development of reading for all.

**Mr. Kelvin Mambwe,** Permanent Secretary of the Ministry of Education, Zambia, noted that we are at the forefront of a reading revolution, with AI transforming the way we acquire knowledge. Through human–machine collaboration, AI provides data-driven analytical guidance while humans contribute ethics and creativity. This partnership unlocks greater human potential, supports lifelong learning, and fosters reading communities that are more adaptive, inclusive, and sustainable.

**Mr. ZHENG Wei,** Director of the Publicity, Promotion, and Education Division of the Department of Language Application and Administration, Ministry of Education, China, highlighted that the Ministry of Education and the National Language Commission of China are earnestly implementing the important directives of General Secretary Xi Jinping and advancing the key tasks of the Outline for Building a Strong Country in Education (2024–2035). He outlined initiatives such as the National Reading Action for Youth, the organization of major language and culture brand programs, targeted activities in rural and ethnic areas, the development of a digital museum of Chinese language and script, and the launch of the Chinese Classics Resource Library. He also emphasized exploring the construction of a new national corpus to provide high-quality reading resources and services to society at large.

## Keynote Speech

**Mr. WANG Fu,** Executive Deputy Director of the Working Committee for Caring for the Next Generation, Ministry of Education of China, noted that key policy documents—including the National Education Conference and the Outline for Building a Strong Country in Education —set clear requirements for promoting nationwide reading, particularly among youth and primary- and secondary-school students. Beyond traditional reading, he emphasized the importance of integrating AI, digital, and information technologies to guide, mentor, and support young people's reading activities, ensuring that reading keeps pace with the times and continues to achieve new outcomes.

**Prof. Philip YU Leung Ho,** Education University of Hong Kong, demonstrated innovative approaches for deeply integrating AI with language learning through human–machine interaction, showcasing practical cases where AI-generated learning content and optimized feedback mechanisms enhance the educational experience.

**Mr. ZHANG Jun,** Deputy Director of the National Library of China, emphasized that public libraries should initiate, support, and actively participate in literacy activities and programs to help people of all ages enhance their reading and writing skills, while fostering media, information, and digital literacy. Using the National Library's Four Seasons Children's Reading project as an example, he illustrated the crucial role that public libraries play in promoting smart reading among children and young learners.

**Prof. Colin de la Higuera,** UNESCO Chair for Open Educational Resources and AI, traced how reading and writing have historically been taught separately and argues that AI is now reshaping these practices, reducing incentives for traditional literacy while introducing new, AI-enhanced forms of reading and writing.



**Ms. YIN Lili,** China Book Distribution Association, shared the latest progress of the "Development and Application of Graded Chinese Reading Standards for Children and Adolescents" project. She emphasized the need for a comprehensive solution centered on graded reading standards, with support including reading proficiency assessment, teacher training and reading curriculum resources, as well as an online graded reading platform and offline integrated home-school-community guidance centers to create a holistic, multidimensional reading ecosystem.

**Mr. LI Tao,** Deputy General Manager of Qingdao Publishing Group, outlined the Group's four-stage approach to advancing reading services: providing reading content, promoting reading products, guiding reading methods, and building a comprehensive reading ecosystem. He highlighted that the Smart Reading Shared Platform project has achieved significant results, with 300 book kiosks deployed across 37 cities and 205 schools, creating an extensive and accessible reading network.

**Mr. FAN Rulai,** Director of the Primary and Secondary School Library and Reading Department at the Center for Educational Technology and Resource Development, Ministry of Education, China, emphasized that platforms serve as bridges connecting resources and users and are key vehicles for policy implementation. He highlighted three flagship initiatives—the Chinese Language Digital Museum, the National Think Tank Education Reading Platform, and the National Primary and Secondary School Library Reading Service Platform—as strategic efforts by the Ministry of Education to build a new smart reading ecosystem for youth, each with distinctive features and complementary functions.

**Mr. CAI Jiusheng,** Director of the Nanchang Education Evaluation, Monitoring, and Technology Promotion Center emphasized that "books are not walls but windows—through them, the world expands." He explained that Nanchang's approach integrates the National Smart Education Reading Platform to systematically reconstruct the reading ecosystem. Through platform-based foundations, resource reconfiguration, method upgrades, intelligent behavior tracking, ecosystem collaboration, and research support, reading is transformed from an ancillary activity into a core competency, effectively advancing youth reading initiatives.

## Panel Discussion

The panel discussion focused on "Promoting and Practicing Reading in Primary and Secondary Schools." The panelists—**Mr. ZHANG Wei,** Director of the Library, Haidian Institute of Educational Sciences, Beijing; **Mr. NIE Lianghong,** Principal of Zhiyuan Primary School, Affiliated to Changsha Normal University; **Mr. ZHAO Shanming,** General Principal of Nonglin Shuanglang Primary School Education Group; **Ms. ZHANG Yuan,** Special-Grade Teacher, Beijing Middle School; **and Ms. DOU Meng,** No. 8 Junior High School, Gushi County, Henan Province—brought extensive research and practical experience in reading. They engaged in in-depth discussions, offering valuable insights and replicable practices to advance reading promotion in primary and secondary schools.


Photo of Panel Discussion

The Moderator of the Opening Remarks **Mr. CUI Haijiao** Vice Dean, Chinese Academy of Press and Publication

The Moderator of the Panel Discussion **Ms. LU Yanmin,** Editor-in-Chief, New Reading Magazine

*The Parallel Session: Smart Reading is guided by the Chinese Academy of Press and Publication and jointly organized by New Reading Magazine, Beijing Normal University Publishing Group, Smart Learning Institute of Beijing Normal University.

## Key Takeaways

- To promote extensive and in-depth reading for all, it is necessary to strengthen and clarify the important value of reading, enhance top-level design and theoretical and practical exploration, and focus on cultivating new readers in the new era.
- Artificial intelligence is changing the way we absorb knowledge. Through human-machine collaboration, AI provides data-driven analytical guidance and humans inject morality and creativity, further releasing human potential on the basis of cooperation, thus realizing the goal of lifelong learning and creating a more adaptive, inclusive and permanent reading community.
- In addition to traditional reading, more attention should be paid to the joint use of AI technology, digital technology, and information technology to guide, tutor, and direct the reading activities of the majority of young people, so that reading can keep pace with the times and continue to achieve new results.
- Public libraries should initiate support and participate in literacy activities and programs so that people of all ages can improve their reading and writing skills and promote media and information literacy and digital literacy skills.
- Through the establishment of online graded reading platforms and offline experience centers for integrated reading instruction at home, school and community, an all-encompassing, three-dimensional overall solution for graded reading is formed.
- The new ecology of reading is reconstructed with systematic thinking, and through the six structural designs of platform construction, resource reconstruction, upgrading, behavioral intellectualization, ecological synergy, and teaching and research support, reading is transformed from an add-on to education into a core literacy competency, which can comprehensively and effectively implement the reading actions of young students.

# Teachers' Forum on Smart Education & Awarding for Best Practice of Smart Education

The Teachers' Forum on Smart Education & Awarding for Best Practice of Smart Education aims to build a cross-sector and cross-regional dialogue platform that brings together global innovators in smart education. By strengthening leadership from master teachers and promoting the integration of science, technology, and education, the forum seeks to share and scale replicable models of smart education practice.


Group Photo of Teachers' Forum

**SPEAKERS**

**H.E. Mr. Douglas Munsaka Syakalima,** Minister of Education, Republic of Zambia

**Prof. YU Qingchen,** Vice Dean, Faculty of Education, Beijing Normal University, China

**Dr. Ton Quang Cuong,** Dean, Faculty of Educational Technology, University of Education, VNU Hanoi, Vietnam

**Prof. DU Xuanjie,** Associate Professor; Director, Technical Promotion and Training Department, Teacher Development Center, South China Normal University, China

**Ms. Grette Wilkinson,** Director, Strategic Projects, Division of Academic and Student Engagement, University of Adelaide, Australia

**Mr. ZHANG Jianbin,** Deputy Director, Curriculum and Teaching Center, Affiliated High School of Beijing Normal University; Senior Secondary School Teacher

**Dr. Vuk Vujovic,** Assistant Professor, MB University; Technical Mentor, Kreativno Pero, Belgrade

**Ms. ZHAO Na,** Senior Teacher, Beijing Academy

**Dr. Mohammed Rizkallah,** Assistant Professor, Sharjah Education Academy; Advisory Board Member, Al-Moltaqa for Development, Egypt

**Mr. TANG Xibo,** Party Secretary, Chengdu Arts and Physical Education High School, Sichuan Province; Senior Secondary School Teacher

**Dr. Ahmed A. Al Khateeb,** Assistant Professor, King Faisal University, Saudi Arabia

**Mr. CHEN Chen,** Principal, Fuzhou No. 8 Middle School, Fujian Province, China

**Dr. Antony Fute,** Associate Professor, Yulin University, China

**Mr. CHEN Xiang,** Director of Science and Technology Education Center of Yuzhong District, ChongQing City, China

**Mr. FU Yonghua,** Principal of Enping Huanggang Experimental Middle School, China

**Ms. ZHANG Xiaoyun,** First-level Teacher at No. 1 Experimental Primary School, Wangqing County, Jilin Province

**Prof. Rose Luckin,** Professor Emerita at University College London

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**MODERATORS**

**Dr. XU Jian,** Deputy Director, Education Informatization Strategy Research Base (Central China), Ministry of Education, China

**Prof. SU Qing,** Vice Dean, College of Educational Technology at Northwest Normal University; Standing Council Member, Information Technology Education Committee, China Educational Technology Association

## Opening Remarks

**Mr. Douglas Munsaka Syakalima,** Minister of Education of the Republic of Zambia, noted that smart education operates across multiple dimensions, requiring teachers to master digital platforms and smart devices to enhance their access to resources and their ability to deliver instruction. He underscored that many regions in Africa still face severe shortages of teaching resources and remain heavily reliant on printed materials for knowledge transmission. He called for mandatory policies to equip teachers with smart devices, ensuring that students can access educational resources more equitably and helping to narrow the learning gap.

**Prof. YU Qingchen,** Vice Dean of the Faculty of Education at Beijing Normal University, emphasized the crucial role of teacher-AI collaboration in advancing educational reform. He presented the Faculty's achievements in promoting educational technology innovation and teacher development, and expressed the hope that the forum would foster broader collaboration and research.

## Keynote Speech

**Dr. Ton Quang Cuong,** Dean of the Faculty of Educational Technology of Vietnam National University, Hanoi, emphasized that artificial intelligence should be viewed not merely as a tool but as a "colleague" that brings human-centered support into education. He suggested that teachers should shift their role toward becoming designers of learning ecosystems, moving from the pursuit of standard answers to project-based learning. He stressed the need to strengthen capabilities in AI-enabled interaction, ethical oversight, and policy innovation in order to reshape the educational ecosystem.

**Prof. DU Xuanjie,** Associate Professor and Director of the Technical Promotion and Training Department at the Teacher Development Center of South China Normal University, shared insights on AI-empowered refined research and teaching practices. In the area of teaching research, he highlighted the core idea of integrating "human evaluative wisdom with machine-based assessment intelligence," while addressing challenges such as data privacy protection, model accuracy, and tool applicability. At the instructional level, he described approaches that integrate traditional paper-and-pencil methods with AI technologies to enable cross-scenario data collection, supporting precision teaching, fostering teachers' professional development, and improving overall educational quality.

**Ms. Grette Wilkinson,** Director of Strategic Projects in the Division of Academic and Student Engagement at the University of Adelaide, presented the case of the merger between the University of Adelaide and the University of South Australia. She explained that the merger aims to address global challenges collaboratively by integrating research strengths and academic resources to enhance overall institutional capacity. The universities are leveraging digital tools and intelligent systems to rapidly redesign curricula, while also developing customized AI tools to support teaching. These efforts help optimize students' digital learning experiences and lay a strong foundation for their future career development.

**Mr. ZHANG Jianbin,** Deputy Director of the Curriculum and Teaching Center at the Affiliated High School of Beijing Normal University and Senior Secondary School Teacher, introduced the school's AI curriculum, launched in 2019 to cultivate students' applied skills, critical thinking, and creativity. The course follows a three-stage teaching model—"experience and perception, principle exploration, and project creation"—emphasizing the development of analytical thinking while integrating real-life examples and project-based learning, fostering collaborative growth for both teachers and students in AI education.


**Dr. Vuk Vujovic,** Assistant Professor at MB University, Belgrade, and Computer Science Teacher and Technical Mentor at Kreativno Pero International School, observed that technological changes have significantly altered how students access information, yet teachers' engagement with technology lags behind, creating a clear generational gap. His school has implemented small-scale pilot projects to train teachers in using AI for administrative tasks, freeing time to focus on student interaction. He emphasized that "teachers are architects, AI should be the assistant," advocating for policies and practices that foster teacher psychological safety while collaboratively designing educational tools.

**Dr. Mohamed Rizkallah,** Assistant Professor at Sharjah Education Academy, used the example of a "blank sheet" to illustrate the current gap between education and learning, emphasizing that AI should make learning easier rather than adding burden. He stressed the importance of clarifying the roles of different stakeholders, including educators and learners, to ensure that learning activities also lead to genuine understanding of educational content. Looking toward the future, he advocated that education systems must proactively adapt to technological developments to bridge the gap between learning and education.

**Mr. TANG Xibo,** Party Secretary at Chengdu Arts and Physical Education High School, Sichuan Province, shared the school's experience in advancing arts and physical education through digital empowerment. The school strengthened its infrastructure with networked intelligent devices, a smart application platform, and a multi-dimensional digital resource system, while developing classroom observation systems, digital painting platforms, and personalized music practice tools. These initiatives have fostered interdisciplinary practice and innovation-driven learning, achieving notable outcomes and receiving multiple accolades.

**Ms. ZHAO Na,** Senior Teacher at the Beijing Academy, has collaborated with the Ruifu AI Research Institute to develop an AI-assisted learning system. This system addresses four major challenges faced by middle school students in autonomous learning and establishes a closed-loop model of "assessment, instruction, practice, reflection, inquiry, and evaluation." Empirical evidence from students shows a significant improvement in learning effectiveness, receiving high praise.





**Dr. Ahmed A. Al Khateeb,** Assistant Professor at King Faisal University, Saudi Arabia, emphasized the importance of governance and rule-making in smart education. He noted that global transformation is a key driver of smart education, while governance and policy are crucial for its successful implementation. He highlighted that effective smart education governance requires alignment between policy and practice, robust regulatory frameworks, teacher training, monitoring and quality assurance, and ethical use of data, sharing practical experiences from Saudi Arabia in this domain.

**Mr. CHEN Chen,** Principal of Fuzhou No. 8 Middle School, Fujian Province, presented the school's "Integrated Triple" teaching model grounded in the philosophy of holistic development and shared its practices in educational digitalization. The school developed the "e-Jixiang" smart campus system, establishing a framework that promotes student growth, teacher development, and education governance. By leveraging digital infrastructure to empower teacher professionalism, integrating brain–computer technologies to innovate classroom assessment, and utilizing resource alliances for comprehensive sharing,.

**Dr. Antony Fute,** Associate Professor at Yulin University, highlighted that artificial intelligence can support personalized learning experiences, but attention must also be paid to the appropriateness of its development process and training materials. He emphasized the need to fully consider the social and cultural context when developing AI tools to avoid negative impacts on students, noting the particular challenges developing countries face in applying AI in education. He called on policymakers to support the implementation of AI in education to advance the achievement of sustainable development goals.

**Mr. CHEN Xiang,** Director of Science and Technology Education Center of Yuzhong District, Chongqing, shared the district's practice of building a unified data infrastructure through top-level design and upgrading applications to meet personalized needs. His work supports precision teaching and individual development across early childhood, primary and secondary education, and student health. By leveraging data-driven governance, the district generates data profiles and dashboards to provide evidence-based support for educational decision-making.


**Mr. FU Yonghua,** Principal of Enping Huanggang Experimental Middle School, China, presented his school's experience as a county-level middle school in implementing smart pen technology to collect and analyze teaching data from pen to cloud. This approach effectively enhances teaching quality and personalized learning, alleviates challenges such as limited access to high-quality resources and teacher professional development, reduces teacher workload, and boosts student engagement and learning outcomes. It also promotes home–school collaboration and provides a new model for high-quality development in county-level schools.

**Ms. ZHANG Xiaoyun,** First-level Teacher at Wangqing County No. 1 Experimental Primary School, Jilin Province, introduced the school's "Young Learners AI Cloud Classroom" project. Using AI technology, the project enables students in remote areas to access cutting-edge technology and fosters intercultural exchange among multiple ethnic groups. The cloud classroom not only enhances teaching quality but also serves as a companion for students, helping them navigate challenges in learning and personal growth, igniting curiosity and hope in their eyes, and strengthening their love for both their hometown and the wider world.

## 2025 Best Practices for Smart Education

The forum also announced the "Notice on the Release of the 2025 Best Practices for Smart Education." The notice stated that, to further implement the digital education strategy, promote the development of smart education, and facilitate experience sharing and international dissemination, the Global Smart Education Conference Organizing Committee, under the guidance of the Department of Science, Technology and Informatization of the Ministry of Education, together with the Ministry's Educational Informatization Strategy Research Bases (Beijing, Central China, and Northwest China), organized the "2025 Best Practices for Smart Education" collection initiative. Following application, selection, and public announcement, a total of 1,008 outstanding cases were finalized.


## Video Speech

In the final video presentation, **Prof. Rose Luckin**, Professor Emerita at University College London explored the balance between artificial intelligence and human intelligence in smart education. She highlighted that smart education should function as an ecosystem that enhances human cognition, suggesting that AI can be understood from three perspectives: as a tool, a catalyst, and a discipline.

*The Teachers' Forum on Smart Education & Awarding for Best Practice of Smart Education was organized by the Smart Learning Institute of Beijing Normal University, Educational Informatization Strategy Research Base, Ministry of Education, P.R. C (Beijing, Central China and Northwest China) and Alibaba Cloud.

This parallel session was jointly moderated by Dr. XU Jian, Deputy Director, Education Informatization Strategy Research Base (Central China), Ministry of Education and Prof. SU Qing, Vice Dean, College of Educational Technology at Northwest Normal University; Standing Council Member, Information Technology Education Committee, China Educational Technology Association.

## Key Takeaways

- Parts of Africa still face the challenges of lack of teaching resources and dependence on books for knowledge dissemination, and there is a need for mandatory policies to equip teachers with smart devices to help students have equal access to educational resources and reduce the education gap.
- The synergistic development of teachers and AI plays a key role in promoting education reform.
- Artificial intelligence is not only a tool, but also a "colleague" of teachers, injecting humanistic care into education. Teachers should turn into designers of learning ecosystems and shift from pursuing standardized answers to project-based learning.
- Universities should make extensive use of digital tools and intelligent systems to facilitate the rapid restructuring of the curriculum system, develop customized AI tools to assist teachers in teaching, and optimize the digital learning experience of students to lay a solid foundation for their future career development.
- Technological change has led to significant changes in the way students access information, but teachers are far less interested in technology than students, creating a clear generational divide. "Teachers are the architects, AI should be the assistants," and the combination of policy and practice can create a sense of psychological security for teachers to co-design instructional tools.
- AI should make learning easier, not add to the burden. He emphasized that the roles of different stakeholders, such as educators and learners, should be clarified to ensure that learning behaviors occur while educational content is truly understood.
- The importance of rule making in smart education governance. Global transformation is the main driver of smart education, while governance and policy are key to its realization. Smart education governance needs to focus on important aspects such as the interface between policy and practice, regulation, teacher training, monitoring and quality assurance, and ethics of data use.
- Artificial Intelligence can help personalize the learning experience, but attention should also be paid to the rationality of its development process and training materials. AI tools need to be developed with due consideration of their social and cultural contexts to avoid negative impacts on students, and challenges faced by developing countries in the application of AI are pointed out.

# Thematic Activities

## Ministerial Dialogue: Key Priorities for Education Beyond 2030

As the 2030 Agenda for Sustainable Development enters its final five years, the global community faces the pressing reality that most SDG 4 targets remain unmet. This roundtable brought together education ministers and key stakeholders to reflect on these challenges and to explore the future direction of education beyond 2030—within a landscape increasingly shaped by rapid technological change and the transformative potential of artificial intelligence.

The session, moderated by Prof. ZHAN Tao and Prof. Asha Singh Kanwar, opened with remarks from the leadership of Beijing Normal University, who highlighted China's continued efforts in rural revitalization, digital education, and AI-enhanced teaching and learning, as well as its long-standing commitment to convening the Global Smart Education Conference.


The discussions addressed how to fast-track SDG 4, with ministers stressing the need to expand digital infrastructure, ensure sustainable financing, and adopt data-driven planning. Several participants called for reshaping curricula to emphasize 21st-century skills, increasing education budgets, and bridging the digital divide to ensure equity. Looking beyond 2030, the roundtable highlighted the importance of curriculum reform to prepare globally competent citizens, offering flexible pathways for students and the promotion of lifelong learning as demographic changes intensify.

A major theme was the ethical and responsible use of AI in education. Experts advocated for developing clear, sector-specific guidelines for AI use, ensuring educators are trained to apply these tools effectively, and learning from global frameworks such as the EU AI Act. Participants also reflected on the future of learning, emphasizing the need to integrate AI and flexible, on-demand learning into teacher

preparation programs. Parental and community engagement was seen as essential to building trust in AI-enabled education, while technology was framed as a critical driver for lifelong learning systems. Collaboration emerged as another strong theme. Representatives from regional organizations and universities stressed the value of cross-border partnerships, international conferences, and multi-country collaborations to strengthen education systems. Industry representatives, including Huawei, showcased how cooperation with universities and ICT competitions can nurture global talent and provide accessible resources. Political will and intellectual honesty were highlighted as preconditions for effective partnerships.

The role of industry partnerships was also emphasized, with experts noting that the public sector could learn from the private sector's culture of innovation, risk-taking, and creativity. At the same time, industry can benefit from the public sector's emphasis on equity, justice, and inclusion. It was agreed that industry should play a central role in providing resources, platforms, and training to bridge the skills gap.

In conclusion, participants recommended accelerating SDG 4 efforts through stronger financing, infrastructure development, and equity-focused policies; redesigning education systems to equip learners with future-ready skills and flexible learning pathways; ensuring ethical integration of AI through guidelines, governance, and teacher preparation; and fostering global collaboration between governments, institutions, and industry. The roundtable closed with three reflective questions for the future: should educational transformation be incremental or radical, how can educators adapt to the AI-native Generation Alpha, and which future we are ultimately working toward—the possible, the probable, or the preferred? The meeting concluded with a reaffirmation of the need for a new social contract for education that balances innovation, inclusion, and equity beyond 2030.


**Photo of Ministerial Dialogue: Key Priorities for Education Beyond 2030**

# Roundtable on Women's Leadership in the Age of AI

Artificial Intelligence (AI) is reshaping economies and societies, yet women continue to face significant barriers to leadership within the global technology landscape. Despite representing 40% of the STEM workforce, women hold only 22% of AI leadership positions worldwide, reflecting entrenched structural inequalities, unequal access to technical training, and persistent algorithmic bias. Against this backdrop, the roundtable on "Women's Leadership in the Age of AI" convened stakeholders from academia, government, and industry to examine these challenges and explore context-specific strategies for advancing gender equity.

The discussion situated women's leadership within the broader history of technological change, acknowledging the dual impact of emerging technologies: while digital innovation has expanded educational opportunities for women, it has also deepened gender divides in access, skills, and representation. Participants stressed that the transformative potential of AI must not reinforce stereotypes or reproduce systemic inequalities. Instead, AI should serve as a catalyst for inclusion, empowerment, and equitable participation in the future of work.


Photos of Roundtable on Women's Leadership in the Age of AI

## Challenges and Opportunities

Persistent challenges were highlighted, including societal expectations around caregiving, limited access to STEM pathways in many regions, a shortage of gender-sensitive policies, and women's continued underrepresentation in decision-making roles. Participants also warned that automation may disproportionately affect women in lower-skilled sectors, underscoring the urgency of reskilling and upskilling initiatives. At the same time, AI creates new opportunities for women in entrepreneurship, digital innovation, and flexible work arrangements.

## Barriers to Leadership

A recurring theme was the structural nature of barriers to women's leadership. Gender bias—ranging from microaggressions to exclusion from key leadership spaces—continues to shape women's experiences in AI-related fields. Without women at the table, AI risks being developed through overly technocentric approaches that fail to reflect diverse social realities.

### Skills Development and Early STEM Engagement

Participants emphasized the need for a hybrid skillset that combines technical competencies—such as AI literacy, coding, and data ethics—with non-technical strengths like empathy, ethical judgment, conflict resolution, and human-centric leadership. Early exposure to STEM, gender-responsive pedagogy, targeted scholarships, and mentorship were identified as critical for building long-term pipelines for women in technology.

### Policy and Institutional Actions

Recommendations included adopting gender-responsive AI strategies, investing in infrastructure and localized digital content, expanding leadership development programs, and strengthening ecosystems that connect schools, families, universities, and industry. Cross-border collaboration through fellowships, peer networks, and knowledge-sharing platforms was seen as essential for amplifying women's leadership globally.

### Conclusion

The session concluded with a call to action: mindsets and systems may take time to change, but women must actively "create and seize the space." Ensuring that women are not only users but also creators and leaders in AI is fundamental to shaping a more ethical, human-centered, and equitable technological future.

## Global Smart Education Network (GSENet) Partner Meeting

The GSENet Partner Meeting convened as the annual platform for partners to reflect on the network's progress, exchange insights, and chart priorities for the coming year. Opening remarks from the leadership highlighted the steady expansion of GSENet, growing from 15 to 20 members, and underscored the network's reputation for agility, collaboration, and meaningful impact. Speakers emphasized that the spirit of solidarity and enjoyment in working together remains central to GSENet's identity and future development.

Participants reviewed the major achievements since the previous year. Notable milestones include the Global Smart Education Webinar Series, whose insights informed the official conference report; the publication of the Global Smart Education Report, consolidating global practices and research; and the launch of the GSENet newsletter, which has strengthened visibility and communication across institutions. Members agreed that these accomplishments provide a strong foundation for shaping the network's next phase of growth.

Discussions focused on several strategic themes. First, members stressed the importance of reaffirming GSENet's commitment to the Global South, including BRICS and other emerging regions. The need to bridge gaps between policy and research was also highlighted, as was the essential inclusion of gender equity and women's leadership in GSENet's formal statements. Participants underscored the role of public-private partnerships and recognized higher education institutions as key actors in advancing smart education and lifelong learning. There was broad agreement that a concise and widely applicable definition of "smart education" should guide future work.

Looking ahead, members proposed several actionable directions. These include developing a clearer Call to Action that articulates shared purposes and cooperation models, and creating an AI-powered teacher competency platform with GSENet-endorsed certification to enhance professional development. Strengthening communication infrastructure was also identified as a priority, with proposals to establish a mailing list and improve the accessibility and completeness of the English-language GSENet website. Members emphasized that GSENet's mission should be communicated in simple and inclusive language to ensure broad public understanding of emerging technologies.

In closing, network leaders expressed appreciation for the active engagement and reaffirmed GSENet's role as a collaborative and innovative platform. They encouraged continued cooperation in research, webinars, and educational initiatives, noting that GSENet has become an increasingly dynamic force shaping the global smart education landscape.


**Photo of Global Smart Education Network (GSENet) Partner Meeting**

# China-Southeast Asia Capacity Development Workshop

The workshop was organized by the UNESCO International Research and Training Centre for Rural Education (UNESCO INRULED), the Southeast Asia Ministers of Education Organization Regional Centre for Technical Education Development (SEAMEO-TED), the ASEAN-China Centre (ACC), and the China Education Association for International Exchange (CEAIE). It was co-organized by the UNESCO Regional Office for East Asia (UNESCO Beijing) and the UNESCO Chair on AI in Education, with strong support from the China Institute of Education and Social Development at Beijing Normal University, the China-ASEAN Specialized Committee for Education Cooperation and Development of the China Association for Non-Government Education, and the China-ASEAN Agricultural TVET Industry-Education Integration Community (CAATIEIC). The workshop brought together nearly 40 TVET policymakers, vocational college principals, scholars, and industry representatives from China and 11 Southeast Asian countries, to discuss strategies for advancing vocational education in the context of digital transformation and smart education development.On the afternoon of 18 August, the Opening Symposium of the Workshop was held at the Jingshi Hall of Beijing Normal University, attracting over 2,500 participants both online and offline.

Photo of China-Southeast Asia Capacity Development Workshop

## Opening Remarks

During the opening session, **H.E. Mr. SHI Zhongjun,** Secretary-General of the ACC, emphasized that as the China-ASEAN Comprehensive Strategic Partnership continues to gain robust momentum, industrial upgrading, digital transformation and rural revitalization have created urgent demand for highly skilled talents. He stated that the ACC will continue to serve as a platform for in-depth exchanges and practical cooperation in vocational education, injecting new impetus into digital transformation and regional integration.

**Datuk Dr. Habibah Abdul Rahim,** Secretary-General of the SEAMEO Secretariat, stated that the digital transformation of TVET plays a crucial role in promoting sustainable rural development, yet barriers such as the digital divide have intensified the challenges for the rural population in skills transformation and upgrading. She hoped that by sharing best practices in relevant fields, the workshop would promote experience exchange and practical cooperation between China and Southeast Asian countries to jointly build a more forward-looking and adaptive TVET system.

**Prof. Shahbaz Khan,** Director of UNESCO Beijing, delivered a video address in which he pointed out that rural education and sustainable development are key to achieving inclusive and quality education and advancing the 2030 Agenda for Sustainable Development. He emphasized the importance of leveraging TVET to empower the rural population, promote industrial and economic development, and rural revitalization. He also viewed the symposium as an opportunity to promote experience sharing, regional cooperation, and policy experimentation to help achieve common goals.

During the Keynote Presentation session, **Mr. HUANG Kan,** President of the Beijing Education Association for International Exchange, shared Beijing's practices in advancing international cooperation in TVET. He proposed several concrete measures in promoting cooperation and exchange in TVET between ASEAN countries and China, including promoting skills training and Luban Workshops, school-enterprise cooperation and industry-education integration, teacher and student exchanges and capacity building, building government and institutional support platforms, and expanding mutual recognition of TVET certificates, thereby enhancing the quality and efficiency of educational cooperation between Beijing and ASEAN.

**Mr. Khat Prumsochetra,** Deputy Director of SEAMEO-TED, emphasized the fundamental contributions of TVET in eliminating poverty, promoting economic and social development in rural areas, and advancing social equity. He expressed hope to expand the provision of TVET and lifelong learning opportunities through strengthening capacity building of TVET institutions and promoting cross-sector cooperation, thereby contributing to building more sustainable communities.

The Opening Ceremony and Keynote Presentation Session were moderated by **Dr. ZHAO Yuchi,** Executive Director of UNESCO INRULED.

## Country Report

During the Country Report session, six representatives delivered thematic presentations: **Dr. Pengiran Nor Jeffrieyah Binti Pengiran Mohamad,** Divisional Director of Curriculum Planning and Development Department at Institute of Brunei Technical Education of Brunei Darussalam, **Mr. SEM Bunthoun,** Deputy Director of Quality Assurance of the Ministry of Labour and Vocational Training of Cambodia, **Mr. ZHOU Xianhai,** Deputy Director of the Smart Vocational Education Development Center of the Higher Education Press of China, **Dr. Xaybandith Rasphone,** Vice-President of the National Chamber of Commerce and Industry (LNCCI) of the Lao PDR, **Ms. Wan Marina binti Wan Mohd Nowalid,** Deputy Director of Industry and Community Collaboration Division at Department of Polytechnic and Community College Education of the Ministry of Higher Education of Malaysia, and **Dr. Min Maung Maung,** Deputy Permanent Secretary of the Ministry of Education of Myanmar. The representatives have outlined the common vision and diverse practices of their respective country in promoting TVET development and advancing TVET transformation in response to the digital and green transitions, especially innovations in curriculum upgradation, strengthening public-private partnerships, promoting lifelong learning, and utilizing digital technologies to expand educational coverage and quality. The Country Report session was moderated by Mr. Rien Chamrong, Vice Head of Public Relations and Partnership, SEAMEO TED.

## The Best Practices

During the Best Practices session, six country representatives shared innovative cases, including **Ms. Ai Susi Susanti,** Vice Director of Academic at Politeknik Piksi Ganesha of Indonesia, **Dr. (Prof) Edgar G. Cue,** President of Mountain Province State University and **Prof. Dr. Silvia Catalan Ambag,** Graduate Professor Lyceum of the Philippines University from the Philippines, **Mr. PEH Wee Leng,** Director of the School of Electronics & Info-Comm Technology at Singapore's Institute of Technical Education, **Dr. Saranthon Maungmee,** Lecturer in Digital Business and Technology Program at Siam University of Thailand, **Mr. Natalino Alarico Barreto Ximenes,** Director for Special Project of Institute of Business (IOB) of

Timor-Leste and **Dr. Ly Thien Trang,** Vice President of Ho Chi Minh City University of Technology (HUTECH) of Vietnam. They showcased profound changes, common concerns, and innovative cases in TVET institutions across diverse country contexts. Viewing TVET as a key lever for promoting social equity, poverty reduction, sustainable rural development, and national modernization, TVET institutions have applied innovative models such as adopting smart learning platforms, promoting blended learning and flipped classrooms, and applying AI and VR or AR technologies to ensure quality education opportunities for marginalized groups and to empower rural development. Facing common challenges in weak infrastructure, funding shortages, and misalignment between curriculum content and industry needs, innovative approaches such as deepened industry-education integration, better alignment with international industry certifications, and micro-credentials are adopted to enhance the adaptiveness of TVET system. The case report session was moderated by Dr. QI Xinjian, Assistant Director of UNESCO INRULED.

On the morning of 18 August, delegates visited Alibaba Cloud Computing to gain deep insights into Alibaba Cloud's strategic deployment and innovative practices in empowering education development with digital solutions, promoting digital and information literacy, and supporting rural education.

On the afternoon of August 20, participants visited the Center for Language Education and Cooperation of China, experiencing the beauty of Chinese culture and language, and systematically learning about cooperation opportunities in programmes such as "Chinese + Vocational Skills" and "Chinese + Professional Skills" education, exploring potential to cultivate applied Chinese language talents that advance practical cooperation between China and Southeast Asian countries.

On the morning of August 21, delegates visited Beijing Polytechnic University and participated in the ASEAN-China TVET International Cooperation and Talent Cultivation Exchange Meeting, which is hosted by the University and supported by the Beijing Education Association for International Exchange. At the meeting, representatives from TVET colleagues in Beijing and Southeast Asia delivered presentations introducing their respective institutions. With more than 10 local TVET institutions from Beijing participating in the meeting, the two sides have engaged in solid discussions on academic collaboration, talent cultivation, and resource sharing.

On the afternoon of August 21, participants visited Higher Education Press (HEP) of China, gaining deep insights into the HEP's work and digital innovation practices in overseas publishing, digital textbook publishing, teacher development, and smart vocational education development, and embarked on in-depth discussions on cooperation needs.

On the evening of the 21st, participants attended the wrap-up session and cultural night event, sharing their insights and key takeaways from the programme and further deepening cultural understanding through cultural performances and teamwork.

The successful organisation of this workshop has deepened policy dialogue, academic discussions, and practical exchanges between China and Southeast Asian countries in TVET and rural education and development. By promoting mutual learning and capacity building, and strengthening partnerships and networks, the workshop not only injected new momentum into sustainable rural development but also leveraged the collective efforts of the TVET system to accelerating the achievement of the United Nations 2030 Agenda.

# AI and Computational Thinking Workshop for Schools

The AI and Computational Thinking Workshop for Schools was jointly hosted by the National Engineering Research Center of Cyberlearning and Intelligent Technology, Beijing Normal University (BNU) and the Centre for Information Technology in Education, Faculty of Education, The University of Hong Kong (HKU). Drawing on the foundations of the CoolThink@JC initiative and BNU's Youth AI Innovation Initiative (Yuanzhuo Initiative), the program supports the Sister Schools Partnership between the Chinese Mainland and Hong Kong SAR. It aims to strengthen collaboration between the two regions, advance AI and computational thinking (CT) education in K–12, and cultivate students' capacity for innovation in the era of intelligent technologies.

## Purpose and Vision

Aligned with national strategies to promote AI education, the workshop provides a structured pathway for integrating AI and CT into school curricula. It brings together over 50 teachers and students from eight Mainland and eight Hong Kong schools, forming a cross-regional learning community. The program focuses on:

- fostering student innovation through project-based learning,
- developing teacher competency for AI-enhanced instruction,
- strengthening school partnerships through sustained collaboration.

## Opening and Keynote Contributions

During the opening session, Experts from BNU underscored the transformative impact of AI on education and highlighted the university's commitment to advancing innovation in teacher education. Scholars from HKU and Beijing Education College offered keynote presentations on the cognitive foundations of computational thinking and practical pathways for applying AI in primary and secondary classrooms. These talks provided a strong theoretical foundation for the week's collaborative activities.

## Collaborative, Project-Based Learning

A defining feature of the program was its mixed-group, cross-regional learning design. Students from Mainland China and Hong Kong formed integrated teams to jointly investigate authentic problems—ranging from community challenges to school-life improvements. Supported by expert mentors from

BNU's Yuanzhuo Initiative, students used Scratch, App Inventor, and AIGC tools to design solutions, perform iterative debugging, and develop functional prototypes.

A "Computational Thinking Challenge" served as a formative assessment. Mixed teams completed CT problem sets, conducted peer-led error analysis, and presented their reasoning processes to the full cohort. This shifted assessment from passive testing to active knowledge construction.

## Teacher Professional Development

Parallel workshops were organized for participating teachers. Sessions included:

- exchange forums on CT pedagogy and AI-supported instruction,
- case studies on interdisciplinary project-based learning,
- hands-on training in prompt engineering and AI-powered teaching design,
- an AI Agent practicum where teachers co-designed intelligent tools for real classroom scenarios.

These activities helped teachers deepen their understanding of AI-enhanced learning ecosystems and explore new professional roles in human-AI collaborative classrooms.

## Cultural Exchange and Community Building

Beyond academic work, participants engaged in cultural visits across Beijing—including campus tours, historical sites, and a field trip to Alibaba—to experience China's technological and cultural landscape. These shared activities strengthened relationships between Mainland and Hong Kong schools and enriched students' cross-regional understanding.

## Final Presentations and Closing Ceremony

On the final day, student teams presented their project outcomes, demonstrating their entire process from problem identification to technical implementation with coding and AI tools. The closing ceremony featured mutual exchange of school flags and gifts between partnered schools, symbolizing long-term collaboration and friendship.

## Conclusion

The program successfully validated a "Mainland–Hong Kong collaboration + teacher-student co-learning + human-AI partnership" model for future-oriented education. It showcased a replicable approach for scaling AI and CT learning in schools and highlighted the shared commitment of BNU and HKU to nurturing the next generation of innovative talent. As participants returned home, they carried with them not only technical skills and pedagogical insights, but also a spirit of cooperation that will continue to shape cross-regional educational development.

# UNESCO Chairs Closed-Door Salon

The UNESCO Chairs Closed-Door Salon, a dedicated event of GSE 2025, gathered UNESCO Headquarters representatives and eight UNESCO Chairs from regions including Europe, Africa, and Asia for an open, informal dialogue on 19 August. The discussion focused on AI in education, digital equity, and collaborative mechanisms for responding to emerging educational challenges, with the aim of transforming exchanges into practical and sustainable partnerships.

Participants began by introducing the thematic priorities of their respective Chairs, which span AI and education, teacher professional development, sustainability, digital learning ecosystems, climate change, school health, and equitable learning environments. Their diverse perspectives underscored the breadth of UNESCO's global network, as well as shared commitments to addressing persistent learning inequities and advancing inclusive digital transformation.

A major focus of the dialogue centered on AI in education and its implications for teacher development. Several Chairs highlighted ongoing work to integrate AI into curriculum design, classroom practice, and teacher capacity building. Ethical and critical approaches to AI were emphasized, particularly the need to ensure that AI systems remain context-aware, culturally relevant, and aligned with principles of fairness and equity. Concrete initiatives mentioned included AI competency frameworks, prompt-engineering methodologies, AI agents for education governance, and low-cost models suitable for resource-constrained settings.

Another central theme concerned digital access, equity, and local challenges. Participants shared the difficulties faced in regions with limited connectivity, insufficient infrastructure, or crisis-affected learning environments. To address these, Chairs are advancing hybrid learning models, open educational resources, digital competence frameworks, and inclusive solutions tailored for learners with disabilities or marginalized backgrounds.

The salon also highlighted strong interest in enhancing collaboration across the global UNESCO Chairs network. Participants proposed establishing communication channels—such as messaging groups—to exchange publications, project updates, and funding opportunities, and to strengthen joint research and capacity-building initiatives. Several Chairs shared ongoing projects, including master's programs on AI for sustainable development, open science platforms, learning analytics, climate and green-transition education, and primary-level health education.

UNESCO representatives reaffirmed the organization's commitment to fostering global dialogue on AI in education and supporting bottom-up innovation. A survey mapping current Chair activities has been completed, with findings to be shared at upcoming events such as Digital Learning Week. The session concluded with a shared call for action: to advance joint proposals, develop shared training resources, and deepen cooperation across the network to ensure that AI-driven educational innovation remains inclusive, equitable, and locally grounded.

# Global Finals of the 8th Global Competition on Design for Future Education (K12 Track)

The forum co-organized by Beijing Normal University and the UNESCO Institute for Information Technologies in Education, the competition attracted over 1,000 primary and secondary school teachers worldwide since its launch on March 1. The K12 track received more than 400 outstanding teaching cases. Grounded in teaching practice, participants addressed core educational challenges through innovative technology applications, actively exploring diverse pathways for technology-enabled education and contributing valuable insights to the digital transformation of education. Following rigorous evaluation by the competition's jury committee, 106 teaching cases received awards in the K12 track, including 17 first prizes, 41 second prizes, and 48 third prizes.

Group Photo of Finals of K12 Track,
the 8th Global Competition on Design for Future Education

## Gathering of Excellence, Charting the Future with Wisdom

At the Finals, 22 teachers delivered their outstanding teaching cases. Participants skillfully integrated technologies such as AIGC and the metaverse with cognitive science, constructing a new classroom ecology characterized by human-machine collaboration. These cases provided practical and feasible solutions for promoting high-quality educational development. By breaking down disciplinary barriers and creating innovative learning experiences, the cases made knowledge acquisition more engaging and effective, thereby fostering the enhancement of students' comprehensive competencies.

In accordance with the competition’s evaluation criteria—including problem awareness, innovation spirit, integration of science and education, application prospects, and presentation and expression—the cases were reviewed by a panel of three distinguished judges: **Mr. SHI Jianguo,** Chief Expert of the competition and Executive Deputy Dean of the China Educational Equipment Institute; **Prof. ZHOU Jiaxian,** Deputy Director of the Center for Educational Neuroscience at East China Normal University; and **Prof. WANG Yunwu** from the School of Smart Education at Jiangsu Normal University. The event was hosted by **Ms. MAO Chengjie,** a Senior IT Teacher from Beijing Jingshan School.


On-site Presentations

During the expert commentary session, **Mr. SHI Jianguo** emphasized that the participants' designs were closely centered on addressing genuine challenges in frontline teaching, fully demonstrating how educational principles can effectively guide teaching practices. He noted that the deep integration of cutting-edge technologies, such as artificial intelligence, had yielded remarkable outcomes in enhancing instructional methods. He further recommended that, by defining more diverse pathways for technology empowerment, participants could advance their cases to a deeper and higher-quality level.

**Prof. ZHOU Jiaxian** expressed full affirmation of the practical value and application potential of the finalists' cases. She highlighted that these cases, centered on core issues such as political identity, educational equity, and cultural heritage preservation, have provided innovativesolutions leveraging cutting-edge technologies like AI agents. Prof. Zhou further encouraged participants to strengthen the evidence-based support from educational neuroscience, thereby enhancing both the academic rigor and scalability of their outcomes.

**Prof. WANG Yunwu** emphasized that the cases fully embodied the student-centered educational philosophy. He noted that each case demonstrated distinctive features, addressed real-world challenges, and reflected teachers' initiative and innovation in responding to the trend of intelligent technology application. He encouraged teachers to further strengthen their design thinking awareness, standardize the educational use of AIGC, and leverage cutting-edge technologies to catalyze deeper personal development and educational reform.

In the concluding session, **Mr. SHI Jianguo** expressed high appreciation for the extensive participation and fruitful outcomes of this year's competition. Since its inception in 2018, the event has been successfully held for seven sessions, attracting over 15,000 participants from more than 40 countries and receiving over 3,000 designs. He emphasized that participants had consistently adhered to a design thinking approach, grounding their innovative explorations in educational practice while deeply integrating new digital transformation technologies into their cases.

## Mutual Learning, Co-Creation

On the afternoon of the 19th, the competition participants engaged in an in-depth exchange session with award-winning representatives from the "Teaching in the 21st Century 3.0 competition", which was jointly launched by the UNESCO Institute for Information Technologies in Education and NetDragon Websoft Holdings Limited, operating on the E-Library for Teachers platform. Educators from China, Russia, Pakistan, Palestine, and Indonesia presented their competition cases and explored differences in primary and secondary educational systems across countries. The teachers also shared diverse perspectives and innovative ideas on practical teaching issues, including the application of artificial intelligence in classrooms and strategies for designing engaging instructional activities. The session was attended by Ms. Tatiana Shutova, Programme Specialist at the UNESCO Institute for Information Technologies in Education, and Ms. ZHANG Qing, Senior Manager of Overseas Strategic Cooperation and Development at NetDragon.

# Student Forum on Innovative Design in Human-AI Collaboration

As a key component of the Global Smart Education Conference, this forum actively responded to the global initiative on “the Futures of Education” by the United Nations Educational, Scientific and Cultural Organization (UNESCO). The forum brought together outstanding youth representatives from around the world, including China, the Philippines, the Maldives, Slovenia, and Azerbaijan. It also featured esteemed experts and scholars, who participated both online and offline. Invited guests included Ms. Natalia Amelina, Senior National Project Officer at the UNESCO Institute for Information Technologies in Education (UNESCO IITE), AN Lili, Deputy Secretary of the Youth League Committee of Beijing Normal University, Prof. Curtis J. Bonk from Indiana University, Prof. Diana Laurillard from University College London, Prof. Ayham Boucher from Cornell University, and Ms. LIU Yingjian, Secretary of the Party Committee of the Institute of Curriculum and Instruction at Beijing Normal University. Together, they explored the future of education in an era where Generative AI (GenAI) is profoundly reshaping the paradigm of human-AI interaction.


Photos of the Student Forum

**SPEAKERS**

**Prof. Curtis J. Bonk,** Indiana University, USA

**Ms. Natalia Amelina,** Senior National Project Officer, UNESCO IITE

**Ms. AN Lili,** Deputy Secretary of Youth League Branch Committee, Beijing Normal University

**Prof. Dr. Daniel Fischer**, Chairholder, UNESCO Chair in Higher Education for Sustainable Development (Video)

**Prof. François Taddei,** UNESCO Chair on Learning Science (Video)

**Mr. Marc Joseph B. Sacopaso,** Undergraduate Student, Mariano Marcos State University (Philippines)

**Ms. SONG Haixin,** Postgraduate Student, Tianjin University (China)

**Ms. YUAN Yongqi,** Postgraduate Student, Central China Normal University (China)

**Mr. CHEN Tianyang,** Postgraduate Student, The Hong Kong Polytechnic University (China)

**Mr. ZHONG Ziquan,** Undergraduate Student, South China Normal University (China)

**Mr. LIU Fan,** Postgraduate Student, The University of Manchester (China)

**Ms. GUAN Jiaxin,** Undergraduate Student, University of Wisconsin-Madison (China)

**Ms. Aishath Alya Binth Shahid,** Undergraduate Student, Villa College (Maldives)

**Ms. WU Jiaying,** Postgraduate Student, University of Southern California (China)

**Ms. Eva Ekart,** Undergraduate Student, University of Maribor (Slovenia)

**Mr. Murad Aliyev,** PhD Student, Beijing Normal University, Azerbaijan

**Ms. LIU Yingyu,** Postgraduate Student, Columbia University (China)

**Mr. LI Yifeng,** Postgraduate Student, Beijing Normal University (China)

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**MODERATORS**

**Ms. HU Zhaoshan,** Postgraduate Student, Tsinghua University (China)

**Ms. Samaneh Lahuti,** Beijing Normal University, Ph.D. Student (Iran)

## Global Vision: Co-authoring a New Chapter in Future Education

**Prof. Curtis J. Bonk** from Indiana University, USA, praised the professionalism and confidence of the young students as early-career researchers. He offered valuable advice and aspirations for all future educators: collaborate with positive and productive People; integrate clear learning Principles into design; always value and enhance the ability to shift Perspectives; Persistently Publish research findings; and maintain a Positive Attitude when facing challenges. Prof. Bonk's sharing not only refined and elevated the forum's outcomes but also served as a great inspiration for global youth to devote themselves to the cause of future educational innovation.

**Ms. Natalia Amelina,** Deputy Secretary of the Youth League Committee of Beijing Normal University, pointed out that in the face of a new wave of technological revolution, China is forging new paths and shaping new advantages through the digital transformation of education. As a leader in teacher education, Beijing Normal University has launched a series of innovations, such as the educational large models, to actively promote educational transforming. She stressed that young students are the most creative pioneers in this grand transformation and looked forward to them, as participants, designers, and co-creators of educational change, contributing their wisdom on the four major themes of "Cognitive Symbiosis," "Developmental Symbiosis," "Social Symbiosis".

**Prof. Dr. Daniel Fischer,** describes how Leuphana University integrates AI and data literacy into its first-semester curriculum through the DataX module and a sustainability-oriented “Transformations” module, enabling all students to engage with AI tools while addressing societal and environmental challenges. It highlights a pedagogical model that links AI competence with sustainable development, fostering critical thinking, interdisciplinary research, and early student-led inquiry.

**Prof. François Taddei** argues that the rapid co-evolution of human and artificial intelligence demands a fundamental rethinking of education, emphasizing wisdom, ethical reflection, and collaborative problem-solving as essential capacities in an AI-infused world. Education systems must evolve as quickly as AI—cultivating collective intelligence, interdisciplinary cooperation.

**Ms. AN Lili,** Deputy Secretary of the Youth League Committee of Beijing Normal University, pointed out that in the face of a new wave of technological revolution, China is forging new paths and shaping new advantages through the digital transformation of education. As a leader in teacher education, Beijing Normal University has launched launched a series of innovations, such as the educational large models, to actively promote educational transforming. She stressed that young students are the most creative pioneers in this grand transformation and looked forward to them, as participants, designers, and co-creators of educational change, contributing their wisdom on the four major themes of "Cognitive Symbiosis," "Developmental Symbiosis," "Social Symbiosis," and "Ecological Symbiosis" to jointly craft a sustainable educational blueprint for the harmonious coexistence of humanity and technology.

## Cognitive Symbiosis: GenAI Reshaping Learning Methods and Mindsets

**Mr. Marc Joseph B. Sacopaso,** an undergraduate student from Mariano Marcos State University in the Philippines and a representative of the Gold Award team from the 8th Global Competition on Design for Future Education (GCD4FE), began the discussion from a thought-provoking philosophical perspective. Using the local saying "Bahala na si Batman" (Let Batman handle it), he vividly pointed out the current societal mindset of "Let AI handle it," warning that this outsourcing of responsibility could lead to a decline in critical thinking. He advocated for a new symbiotic relationship of "Let me and AI handle it together," where AI should act as a "co-pilot" and "mentor," not a "master." He imaginatively proposed the "YourTwin" concept, which uses mirror and shadow twin AI partners to challenge and expand students' thinking, achieving personalized cognitive enhancement.

**Ms. SONG Haixin,** a postgraduate student from Tianjin University, offered an empirical perspective, sharing a meta-analysis based on 30 experimental and quasi-experimental studies from around the world to systematically investigate whether GenAI can enhance students‘ critical thinking. The study found that GenAI does have a significant positive impact on students’ critical thinking, but the effects vary: it is more effective in Asian cultural contexts, shows the most significant improvement for university students, and its application in complex problem-solving (like PBL learning) is far superior to simple information retrieval. The most crucial finding was that the "human-AI collaboration" model is far more effective than the "AI-led" model, a conclusion that powerfully affirms the irreplaceable leading role of humans in smart education.

**Ms. YUAN Yongqi,** a postgraduate student from Central China Normal University, transitioned from theory and evidence to practical application, using the "Xiaoya" intelligent teaching platform as an example to demonstrate how knowledge graph technology empowers personalized learning. She detailed how students engage in deep interaction with AI through functions like autonomous knowledge exploration, personalized resource recommendations, and dynamic learning path adjustments. She further noted that for personalized learning to be truly effective, students must meet three challenges: developing efficient, prudent, and ethical AI literacy; fostering the intrinsic motivation to ask questions; and mastering metacognitive skills for self-regulation. The future ecosystem of personalized learning requires the joint transformation and upgrading of the roles of AI, students, and teachers.


## Developmental Symbiosis: GenAI Driving the Cultivation of Future Core Competencies

**Mr. CHEN Tianyang,** a postgraduate student from The Hong Kong Polytechnic University, took a unique approach by suggesting that before embracing change, we should explore the unchanging core of education, namely core moral values and fundamental abilities like curiosity and critical thinking. He shared how film-making, the "ninth art," can guide children to view AI as a "Playmate" for dialogue and debate, rather than a tool, thereby protecting and stimulating creativity through free trial and error.

**Mr. ZHONG Ziquan,** an undergraduate student from South China Normal University, extended the perspective to educational equity and teacher development. He shared how the "Kexing Nanyue" project uses GenAI, knowledge graphs, and VR technology to create a resource center for rural primary school science teachers, providing personalized lesson plans and immersive virtual experiments. This has effectively enhanced the digital literacy of rural teachers, demonstrating technology's immense potential in bridging the urban-rural educational divide.

**Mr. LIU Fan,** a postgraduate student from the University of Manchester, UK, delved into a more forward-looking concept: the "AI Citizen." Drawing on his own experiences in virtual museum design, robotics lab visits, and advising on AI education policy for Bangladesh, he vividly illustrated how learners can transform from passive knowledge recipients into proactive future citizens who use AI to solve real-world social problems, equipped with a global perspective and a sense of social responsibility.

**Ms. GUAN Jiaxin,** an undergraduate student from the University of Wisconsin-Madison, USA, brought the focus back to the frontline of primary education classrooms. Through solid research on primary school English teachers and students, she revealed practical challenges, such as students tending to treat AI as an "answer machine" and skipping independent thinking. In response, she collaborated with teachers to design an AI-integrated course that guides students to use AI to generate materials for creative redesign. This successfully combined language learning with the cultivation of technological literacy and logical thinking.

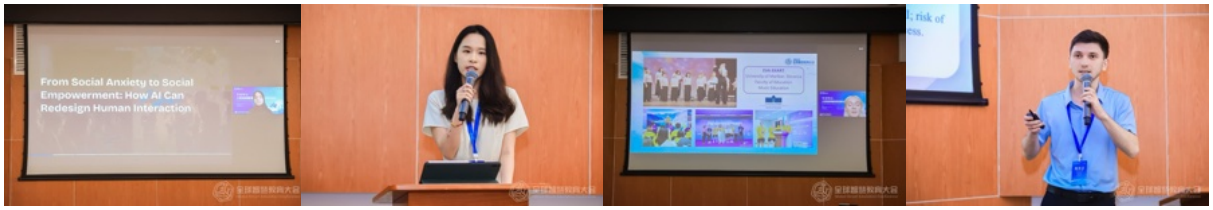

## Social Symbiosis: GenAI Fostering Cross-Cultural and Intergenerational Connections

**Ms. Aishath Alya Binth Shahid,** an undergraduate student from Villa College, Maldives, and a representative of a winning team from the 8th GCD4FE, focused on the common pain point of social anxiety. She pointed out that a large number of students worldwide are "silenced" in collaborative settings due to anxiety, representing a significant loss of vitality for social innovation. She vividly compared AI to "Training Wheels"for learning to ride a bike, providing real-time, private guidance to help users build confidence and eventually participate in social interactions independently. Her sharing profoundly revealed the social value of AI: it is not meant to replace human emotion but to empower every voice to be heard through technology, achieving more equitable social participation.

**Ms. WU Jiaying,** a postgraduate student from the University of Southern California, USA, took a macro perspective, analyzing the differences in human-AI collaboration models under various cultural and institutional contexts by comparing AI education practices in Chinese and American universities. She proposed a future-oriented "Learner-led" framework for human-AI collaboration, advocating for students to critically lead the use of AI tools driven by clear goals, and to engage in cross-cultural collaboration and knowledge co-creation under effective institutional supervision. This provides a clear guide for building a new paradigm for higher education in a multicultural context.

**Ms. Eva Ekart,** an undergraduate student fromthe University of Maribor, Slovenia, and a representative of a winning team from the 8th GCD4FE, presented an innovative and humanistic concept: the “Skill Match” platform. She astutely observed the “skills gap” between generations and proposed using AI as an efficient "connector" to allow young people and seniors to become each other's teachers and students, sharing skills and recreating "the village effect" in the digital age. This concept is not just about skill exchange but also about emotional connection and community building, vividly illustrating how technology can serve intergenerational harmony.

**Mr. Murad Aliyev,** a PhD student at Beijing Normal University from Azerbaijan, shared a transnational practice from "localization" to "global collaboration," using his team's "Mind Made" AI teaching assistant as an example. He provided an in-depth analysis of the cultural and curricular challenges faced when adapting an AI tool designed for Chinese teachers for use in the Azerbaijani education system. He demonstrated the feasibility of achieving cross-cultural technology transfer through deep localization, emphasizing that true social symbiosis must be built on deep respect for and adaptation to local needs.




## Ecological Symbiosis: GenAI Innovating Future Learning Fields and Ecosystems

**Ms. LIU Yingyu,** a postgraduate student from Columbia University, USA, and a representative of a winning team from the 8th GCD4FE, first presented her team's design of the "InnoHolo Space." This design aims to break through the "high cost of trial and error" in traditional classrooms. By combining Augmented Reality (AR) and an AI mentor, it immerses students in problem scenarios to "get their hands dirty" with creative ideas. The core role of the AI is to simulate the dynamic consequences of students' proposed solutions in real-time and guide them to reflect and iterate. This design transforms learning from "memorizing knowledge" to "creating and practicing," building a future learning field that encourages bold exploration and deep thinking.

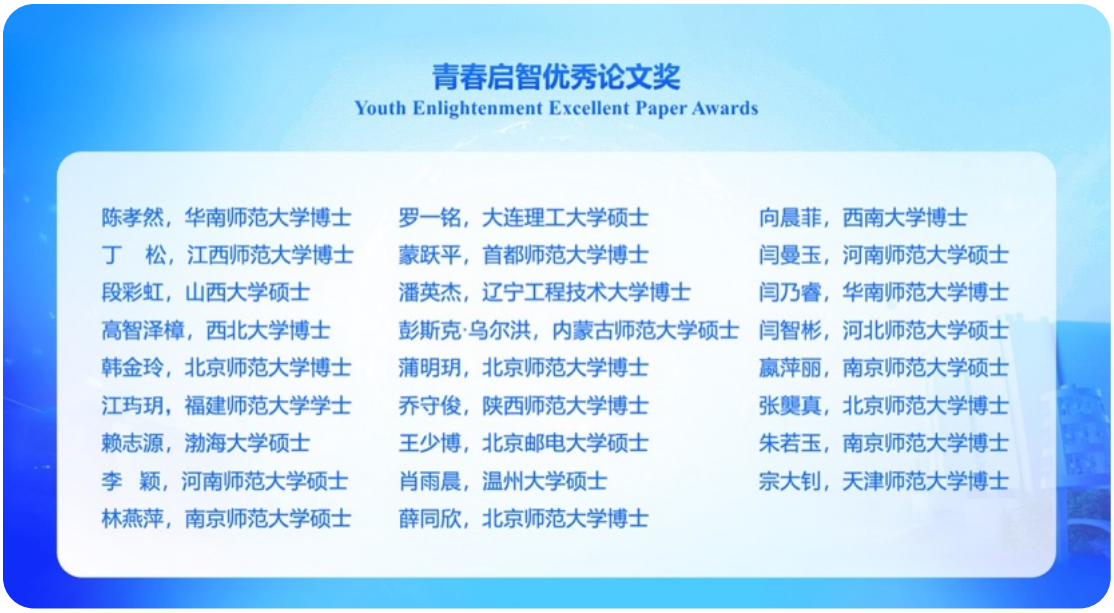
**Mr. LI Yifeng,** a postgraduate student at Beijing Normal University and a representative of a winning team from the 8th GCD4FE, expanded the vision from an intelligent learning field to a grander, more authentic learning Ecosystem. He shared the "Immersive Forest" project conducted at the Wuyanling National Nature Reserve in Zhejiang. Facing the real-world challenges of ecological conservation, his team designed an interactive platform integrating AI image recognition and the Internet of Things. It skillfully connects researchers, local residents, and tourists, transforming citizen science observation data into resources for scientific research and ecotourism. This forms a virtuous cycle of harmonious coexistence between humans, nature, and technology, vividly illustrating how to build a smart learning community that transcends classroom boundaries.

The moderator of the student forum is Ms. HU Zhaoshan, Postgraduate Student, Tsinghua University (China) and Ms. Samaneh Lahuti, Beijing Normal University, Ph.D. Student (Iran)


## Gathering Youth Wisdom to Co-create the Futures of Education

Prior to this event, as another important segment of the 2025 Global Smart Education Conference, a preliminary "Youth Enlightenment Student Forum" was planned, organized, and executed by students themselves. It attracted over 90 young researchers—including undergraduate, postgraduate, and PhD students—from more than 20 universities worldwide. They engaged in in-depth exploration of six cutting-edge areas, including the deep integration of generative AI with subject-specific teaching, the development of teachers' digital literacy, the application and ecological transformation of human-AI collaborative education, and innovation in educational governance and teaching models. Through a peer-review process, 26 papers were selected for the "Youth Enlightenment Outstanding Paper Award," and

the winners were invited to be recognized at this "Student Forum on Innovation Design in Human-AI Collaboration." From the initial widespread call for papers to the focused presentations at this forum, we have clearly witnessed the immense academic enthusiasm, outstanding organizational skills, and profound historical insight of contemporary young researchers. Their actions and thoughts prove that the future of education is not shaped by technology or policy alone, but rather emerges from the continuous dialogue between human creativity, ethical responsibility, and technological possibility.




**Winners of the "Youth Enlightenment Outstanding Paper Award"**

# Plenary Session and Closing Ceremony

Over these inspiring three days, distinguished scholars, internationally renowned experts, representatives from leading global organizations and government agencies, passionate frontline educators, and senior industry professionals came together under the theme “Human–AI Collaboration: Reshaping the Educational Ecosystem for the Future.” United by a shared vision, participants examined the evolution of policies in smart education, breakthroughs in cutting-edge technologies, and innovative practices from around the world, collectively sketching an aspirational blueprint for the future of smart education. The distinguished presentations and vibrant exchange of ideas not only showcased the pioneering spirit of this conference but also underscored its forward-looking significance. Through these intellectual sparks, we witnessed the profound momentum driving the next era of educational innovation.


Photo of Guests from Closing Ceremony

**SPEAKERS**

**Prof. CHEN Xing**, Co-Chair of GSE Conference Program Committee; Vice President, Beijing Normal University, China

**Dr. Obijiofor Aginam**, Director, UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (UNESCO MGIEP)

**Prof. XIE Weihe,** Senior Professor of Humanities at Tsinghua University; National First-Class Professor of Philosophy and Social Sciences, China

**Mr. Gwang Chol Chang,** Chief of Section of Education Policy, Division for Policies and Lifelong Learning Systems, UNESCO

**Prof. Asha S. Kanwar,** Chairman of the Advisory Committee of the Global Smart Education Network (GSENet); Chair Professor, Beijing Normal University; Former President, Commonwealth of Learning (COL)

**H.E. Prof. Kaviraj Sukon,** Minister, Tertiary Education, Science and Research, Mauritius

**Ms. Shafika Isaacs,** Chief of Section for Technology and AI in Education, UNESCO Future of Learning and Innovation Team

**Prof. HUANG Ronghuai,** Co-Chair of GSE Conference Program Committee; Co-Dean, Smart Learning Institute of Beijing Normal University, China; UNESCO Chair on AI in Education

**MODERATORS**

**Prof. ZHAN Tao,** Co-Chair of GSE Conference Program Committee; Director, UNESCO IITE

**Prof. CHEN Guangju,** Professor, Deputy Director of the Academic Affairs Committee of Beijing Normal University, China

**Prof. WU Yujun,** Director, Office of International Exchange and Cooperation, Beijing Normal University, China

**Prof. CHEN Xing**, Co-Chair of GSE Conference Program Committee; Vice President, Beijing Normal University, expressed his appreciation on behalf of the University to all participating guests, as well as to the Ministry of Education, UNESCO, and the organizing team. He highlighted several defining features of the Conference: first, new breakthroughs in international exchange, with over 270 international participants sharing cutting-edge insights and engaging in substantive collaboration; second, a rich and diversified program structure, including five major thematic strands and 17 parallel sessions covering all levels of education, complemented by special activities and an exhibition of achievements; third, the release of 15 major outcomes, demonstrating the Conference's leadership and influence in the field; and fourth, a strong emphasis on the integration of industry, academia, research, and application, fostering a virtuous cycle between theory and practice. He reaffirmed Beijing Normal University's commitment to the principles of openness and collaboration, and its willingness to work with global partners to advance educational equity, digital inclusion, and talent development, thereby contributing to the realization of the United Nations 2030 Sustainable Development Goals. He concluded by expressing his anticipation of reconvening next year to share new progress and achievements.

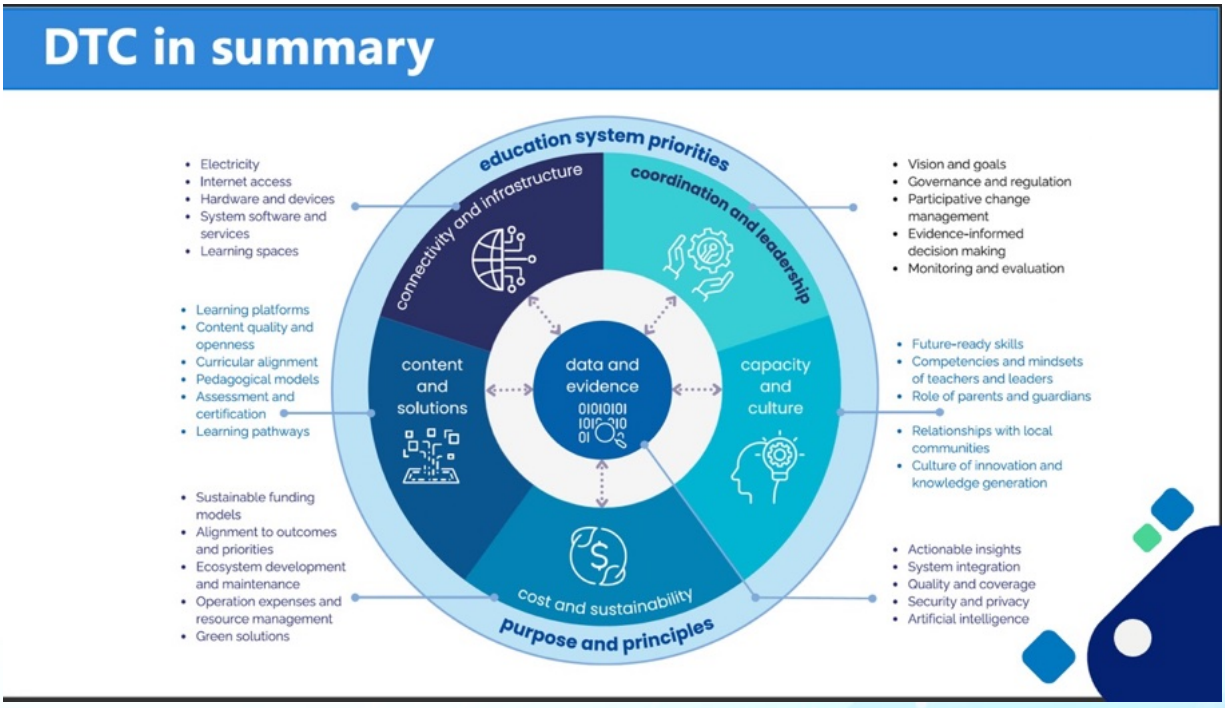
**Dr. Obijiofor Aginam**, Director, UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development referred to the Conference's focus on the challenges faced by teachers, learners, and education managers, underscoring the critical value of digital innovation in education. He noted that development remains highly uneven across regions, with some areas still lagging behind, where digital tools have yet to be equitably accessed or widely adopted by students—an urgent issue that must be addressed. He further highlighted that many developing countries are still falling short of achieving relevant United Nations goals, and called on education leaders and ministers to strengthen collective action. He encouraged all stakeholders to intensify efforts to promote inclusive and equitable lifelong learning, ensuring that no one is left behind. He also invited partners to deepen dialogue and contribute their professional expertise in collaboration with UNESCO MGIEP and its partners. ooking ahead, he expressed the hope that the Global Smart Education Conference will continue to generate new outcomes in the coming year and jointly advance a shared agenda for equitable and inclusive education across Africa, Asia, Latin America, and other regions.

## Keynote Speech

**Prof. XIE Weihe,** Senior Professor of Humanities at Tsinghua University, in the keynote report, pointed out that artificial intelligence has become a defining concept of 2025 and a focal topic within the global education community. He shared two key reflections. First, he observed that AI is inherently civilian and universal in nature: everyone can be a participant and contributor, making AI a technology of broad public engagement rather than elite monopoly. Second, he emphasized the rapid, dynamic, and uncertain nature of AI development. Drawing on vivid metaphors, he cautioned that AI evolves quickly and unpredictably, likening it to constantly shifting power structures, while also invoking the idea of "raising young tigers" to warn of potential risks if governance and foresight are insufficient. Prof. XIE stressed that AI governance lies at the core of smart education, referring to China's Global Initiative on Artificial Intelligence Governance as an important normative framework for guiding responsible development. He affirmed that the Global Smart Education Conference has established a valuable platform for dialogue and cooperation, effectively responding to the principles of global AI governance. He expressed the hope that the Conference will continue to grow in influence and serve as a leading example of responsible AI development and governance in global education.

## Release Session

**Mr. Gwang Chol Chang,** Chief of Section of Education Policy, Division for Policies and Lifelong Learning Systems, UNESCO introduced the "Digital Transformation Collaborative for Education (DTC)" This alliance is led by UNESCO and was established two years ago, which is an important part of the Global Coalition for Smart Education. It involves 193 countries participating in relevant agreements, aiming to ensure learning continuity through innovative methods, effectively utilize digital technology, and mitigate its risks. The core of the presentation introduced the six pillars framework : covering Coordination and leadership; Cost and sustainability, Connectivity and infrastructure, Capacity and culture, Content and solutions. This framework adopts a comprehensive collaborative approach, adhering to a human-centered principle, and aims to address various challenges in digital transformation, strengthen educational resilience, quality, and effectiveness, and help expand high-quality educational opportunities to meet the demands of 21st-century education development.




DTC is supported by evidence-based decision-making to help digitize education

## Awards Ceremony: Global Smart Education Innovation Prize

In accordance with the Announcement and Implementation Guidelines of the Global Smart Education Innovation Prize, the 2025 Global Smart Education Innovation Prize Evaluation Committee was established to review and assess all submitted entries**. Prof. WU Yujun**, Director of the Office of International Exchange and Cooperation at BNU, announced the list of prize recipients. The 2025 prizes comprised three Innovation in Research Prizes, four Innovation in Practice Prizes, and three Innovation in Technology Prizes. The Global Smart Education Innovation Prize aims to encourage the application of technological innovation to address the most pressing challenges in education and to promote impactful, scalable solutions. The initiative has received strong recognition and positive response from both academic and industry communities.

## Prize Categories

### Research Innovation Prize:

This prize recognizes widely influential and empirically verified innovations in the field of smart education by individuals, institutions or organizations. Includes theoretical and empirical research. Innovative books, papers, and research reports, which expand the frontiers of knowledge in the field of smart education and intelligent technologies, can be submitted. This prize was presented by **Prof. Diana Laurillard,** Emeritus Professor, University College London.

**理论创新奖 Innovations in Research Prize**

2025 全球智慧教育大会 Global Smart Education Conference

| 序号 (NO.) | 成果名称 (Name of the Project) | 成果完成人 (Name of Participants) | 作者单位 (Institution/Organization/Employer) |
|---|---|---|---|
| 1 | Development and Validation of the PA-SDA Scale for AI-Integrated Self-Directed Language Learning | Belle Li, Zhuo Zhang, Victoria Lowell, Chaoran Wang, Curtis J. Bonk | Purdue University, Towson University, Purdue University, Colby College, Indiana University Bloomington |
| 2 | The Construction of Innovative Theories and Systematic Practical Exploration of New Happy Education | Junjie Shang1, Yu Liu1, Peng Zhang1, Junyi Zhou1, Ruonan Hu2, Zhuo Li3, Lan Hou4, Qiuping Hu5, Zhu Shi1, Jialing Zeng1, Wenli Yang1, Leisi Pei6, Lu Zhang7, Qi Xia8, Yuanyuan Zhang9, Lixiang Gao10, Wendan Huang11, Shufang Tan12, Yueying Zhao13, Yulong Huo1 | 1. Peking University; 2.East China Normal University; 3.Norwegian University of Science and Technology; 4.Haidian Institute of Education Sciences; 5.Beijing Chaoyang Teachers' Development Institute; 6.The Education University of Hong Kong; 7.Beijing University of Posts and Telecommunications; 8.Zhejiang University; 9.Jiangxi Provincial Department of Education; 10. Ludwig Maximilian University of Munich; 11.Guilin University of Electronic Technology. 12.University of Pennsylvania; 13.National Academy of Education Administration |
| 3 | RAG-Tutor | Daniel Burgos, Enrique Frías, José Carlos San José | Universidad Internacional de La Rioja (UNIR) |

### Practice Innovation Prize:

This prize recognizes practical innovations in the field of smart education by individuals, institutions or organizations. This includes, but is not limited to, the digital transformation of education at the local, national or regional levels relating to governance or practice, improvements in classroom teaching, developments of innovative pedagogic models, and how technologies can be used in innovative ways to improve the quality of education and reach the unreached. This prize was presented by **Prof. Asha S. Kanwar,** Chair of Governing Board of UNESCO IITE; Chair Professor, BNU.

## 实践创新奖 Innovations in Practice Prize

| 序号 (NO.) | 成果名称 (Name of the Project) | 成果完成人 (Name of Participants) | 作者单位(Institution/Organization/Employer) |
|---|---|---|---|
| 1 | Breaking Down Data Barriers to Forge a New Regional Digital Education Ecosystem | Xiao Fangming1, Gong Fangde1, Chen Xiang2, Deng Jincan1 | 1.Yuzhong District Education Commission, Chongqing; 2.Yuzhong District Science and Technology Education Instrument Center, Chongqing |
| 2 | Smart Education for All: Empowering Inclusive, Lifelong STEM Learning Through Accessible Technology | Sanura Jaya, Azman Jusoh | SEAMEO Regional Centre for Education in Science and Mathematics (RECSAM) |
| 3 | Cloud for Youth | Huang Guijing, Ma Xin, Yu Jun, Luo Cheng | Alibaba Cloud, Alibaba Philanthropy |
| 4 | RETRIDOL: Providing Leadership in Transforming ODeL Policy, Research and Practice in West Africa | Olufemi A. Peters1, Christine I. Ofulue2, Amos Illiya2, Felix K. Olakulehin2 | 1.National Open University of Nigeria; 2.RETRIDOL, National Open University of Nigeria |

### Technology Innovation Prize:

This prize recognizes technological innovations in the field of smart education and enterprise that can help solve some of the key challenges in the education and training sectors. This includes, but is not limited to, educational equipment/tools, software systems, coding/algorithms, and integrated technology solutions. This prize encourages individuals, institutions, or organizations affiliated to a company to explore new ideas, approaches and solutions to providing ethical innovations that can be scaled up for making a difference. This prize was presented by **Prof. Mohamed Jemni,** Director of ICT Department, Arab League Educational, Cultural and Scientific Organization.

## 技术创新奖 Innovations in Technology Prize

| 序号 (NO.) | 成果名称 (Name of the Project) | 成果完成单位 (Institution/Organization) |
|---|---|---|
| 1 | Huawei Smart Education Industry Solutions | Huawei Technologies Co., Ltd. |
| 2 | Promethean ActivPanel 10 with ActivSuite™ | Promethean |
| 3 | AI Digital Assistant Suite for Higher Education Transformation | Contact North |


Photos of Awarding Ceremony

## Awards Ceremony: Award Ceremony for the Finals of the K12 Track, the 8th Global Competition on Design for Future Education

The competition was co-organized by Beijing Normal University and the UNESCO Institute for Information Technologies in Education (UNESCO IITE). The competition's evaluation criteria included problem awareness, innovative spirit, integration of science and education, application prospects, and presentation and communication, among others. Based on these criteria and following a rigorous review by the expert judging committee, 106 outstanding cases were selected, including 17 first prizes, 41 second prizes, and 48 third prizes in the K–12 track. The awards were presented by **Prof. ZHAO Qinping**, Academician of the Chinese Academy of Engineering, **Prof. CHEN Xing**, Co-Chair of the GSE Conference Program Committee and Vice President of Beijing Normal University, and **Prof. ZHAN Tao**, Co-Chair of the GSE Conference Program Committee and Director of UNESCO IITE.


## Acknowledgments for Partners

The success of the Conference would not have been possible without the strong support of our cooperating institutions and partners. At the closing ceremony, commemorative medals and certificates of appreciation were presented to participating enterprises in recognition of their valuable contributions and continued support for the Conference.



## Statement Release & Concluding Remark

**Prof. Asha S. Kanwar**, Chairman of the Advisory Committee of the Global Smart Education Network (GSENet); Chair Professor, Beijing Normal University; Former President, Commonwealth of Learning (COL) officially released the Global Smart Education Network (GSENet) Statement 2025 at the Concluding Session of Global Smart Education Conference 2025.

# Global Smart Education Network (GSENet) Statement at the Conclusion of the Global Smart Education Conference 2025

The 2025 Global Smart Education Conference brought together partners from across the world in a vibrant exchange of ideas, reaffirming a shared commitment to shaping the future of education. Smart education is a holistic approach which uses technology to personalize learning, making it more engaging, efficient, and accessible for every learner. This will be essential to achieving equitable, quality education and lifelong learning for all in line with the 2030 Agenda for Sustainable Development.

In an era of profound technological and social change, the international community must unite to build smarter, more equitable, resilient, and sustainable education systems. This requires concrete cooperation, responsible innovation, and the recognition that education is both a foundation for peace and a driver of sustainable development.

### I. Fostering a Global Network for Smart Education Cooperation

Partnership is the cornerstone of progress. GSENet will expand global cooperation by strengthening stakeholder engagement, promoting internationally recognized technology standards, and advancing interoperable systems. Open, multilingual, and culturally relevant technology services—rooted in open-source and transparent models—will be prioritized. Particular emphasis will be placed on enhancing South-South cooperation and North-South linkages.

*Together, we will explore the development of and sharing of appropriate models and guidelines of smart education ecosystems for teachers, and institutions.*

### II. Advancing Resource Sharing for Equity and Inclusion

We commit to sharing multilingual, inclusive, cross-cultural smart open educational resources, with special attention to the needs of developing countries, least developed countries, and small island developing states. Targeted attention will be paid to building the digital capacities of women/girls and marginalised communities. Through open educational resources, AI-generated content, and innovative digital textbooks, GSENet will support equitable learning opportunities and context-specific content creation.

*Technical cooperation will accelerate digital access, bridging gaps between regions and communities.*

**III. Strengthening Teacher Digital Competence**

Teachers at all levels remain central to effective smart education and lifelong learning. We will promote digital literacy, responsible and creative technology use, and recommend ethical AI tools to support transformative teaching and learning.

*GSENet will support the professional development of teachers in digital skills, and co-create training adapted to diverse contexts.*

**IV. Driving Research for Evidence-Based Policy**

Academic research must guide the sustainable evolution of smart education. GSENet will launch collaborative, interdisciplinary, and cross-cultural studies addressing core challenges, developing indicators, and identifying best practices. The research and resources generated will support policy development and implementation.

*We will mobilize funding for open research projects, publish annual reports, and ensure that research findings inform policy and practice at all levels.*

**V. Strengthening Governance and Ethical Use of AI**

We recognize both the opportunities and risks of AI in education. AI must serve the mission of advancing learning and promoting the social and emotional well-being for all by fostering responsible and ethical use.

*GSENet will work with UN partners to create evaluation frameworks, ethical guidelines, and practical use cases for AI that prioritize inclusion, privacy, fairness, and the needs of developing countries.*

**VI. Shaping the Futures of Smart Education**

GSENet will advance collaboration on national smart education strategies and catalyse linkages between the academy, industry, and government for talent development and empowerment of learners for the uncertain future that lies ahead. Universities will have a key role to play in thought leadership and innovation.

*GSENet will participate actively in developing the global agenda and implementation strategies for the futures of education beyond 2030.*

**A Call to Action**

Let this conference mark a renewed global commitment: to work together across cultures and communities, public and private sectors to promote smart education for all. Through cooperation, mutual respect, shared purpose, and accountability for results we will shape the future of an education that contributes to the prosperity of the people and the planet.

**H.E. Prof. Kaviraj Sukon,** Minister, Tertiary Education, Science and Research, Mauritius expressed gratitude on behalf of the ministers for the warm hospitality and strong support provided by Beijing Normal University and the Organizing Committee, and affirmed the success of the Global Smart Education Conference 2025. He noted that both the Conference and the Ministerial Roundtable brought together representatives from governments, international organizations, academia, and the private sector from across the world, with a shared focus on advancing SDG 4. Core discussions centered on redesigning curricula to foster 21st-century skills, narrowing the digital divide, promoting flexible learning pathways and lifelong learning systems, and ensuring the ethical and responsible use of artificial intelligence in education—supported by clear guidelines, sound governance mechanisms, and strengthened teacher capacity-building. He further underscored the importance of cross-border cooperation and public–private partnerships, calling for increased investment in educational infrastructure, the adoption of equity-driven policies, systemic reforms in education, and enhanced multi-stakeholder collaboration. He concluded by advocating for the establishment of a new social contract for education that balances innovation, inclusiveness, and equity, contributing to a shared future vision for education.

**Ms. Shafika Isaacs,** Chief of Section for Technology and AI in Education, UNESCO Future of Learning and Innovation Team affirmed that the Global Smart Education Conference 2025 serves as an open public space for building consensus and jointly addressing shared challenges. She expressed sincere appreciation to the organizers and volunteers for their thoughtful planning and effective coordination. She outlined five key roles of UNESCO in advancing AI and education: first, acting as a global convener by organizing platforms such as Digital Learning Week; second, providing thought leadership through policy guidance and flagship publications; third, serving as a standard setter by developing ethical frameworks for AI and AI competency frameworks for teachers and learners; fourth, delivering technical support through capacity-building initiatives and online learning programmes; and fifth, upholding a strong commitment to equity by promoting the responsible, inclusive, and human-centered use of AI in education. In conclusion, she called for continued reform of education systems to foster human–machine collaboration that advances the global public good and supports sustainable development.


At the conclusion of the Conference, **Prof. HUANG Ronghuai**, Co-Chair of the GSE Conference Program Committee, Co-Dean of the Smart Learning Institute of Beijing Normal University, and UNESCO Chair on AI in Education, delivered the closing remarks, symbolizing the forward-looking spirit of smart education. The Conference brought together more than 2,500 participants from 69 countries and regions, including over 270 international guests and nearly 2,000 frontline practitioners, fostering rich cross-border and cross-sector dialogue. H.E. Mr. WU Yan, Vice Minister of Education of China, emphasized that the digital transformation of education is a core priority in China's strategy to build a strong education system. H.E. Ms. Stefania Giannini, Assistant Director-General for Education at UNESCO, reaffirmed the fundamental principle of people-centred education, while Prof. YU Jihong, President of Beijing Normal University, called for strengthened global collaboration to explore new pathways for smart education. Reflecting on its decade-long journey—from its inception in 2016 to its emergence as a global platform for dialogue and cooperation—the Conference highlighted the steady formation of a global smart education community. The Conference featured a wide range of highlights. Its programme was diverse and comprehensive, comprising two plenary sessions, seventeen parallel sessions, eight thematic events, three closed-door meetings, and a smart education exhibition. The outcomes were substantial and impactful, with 25 major achievements released, including Smart Education: Pathways toward Education 2050 and Lead for Technology: A Regional Edition of the 2024/25 GEM Report on Education Leadership and Digital Transformation in East Asia. Prof. HUANG emphasized that while the Global Smart Education Conference 2025 has come to an end, the journey of educational transformation is only just beginning. Carrying forward the shared achievements and collective insights of these days, participants were invited to continue working hand in hand toward a more inclusive, innovative, and sustainable future of education—for the benefit of all.


**Prof. HUANG 's Digital Avatar at the Closing Ceremony**


The Plenary Session and Closing Ceremony were moderated by Prof. ZHAN Tao, Co-Chair of the GSE Conference Program Committee and Director of UNESCO IITE; Prof. CHEN Guangju, Professor and Deputy Director of the Academic Affairs Committee of Beijing Normal University; and Prof. WU Yujun, Director of the Office of International Exchange and Cooperation, Beijing Normal University, China.

# Smart Education Exhibition

The Conference featured on-site exhibitions by industry and corporate partners, educational institutions, and research organizations in the field of smart education, showcasing intelligent educational equipment, systems and platforms, digital tools and software, learning resources, integrated solutions, exemplary cases, innovative projects, and research outcomes.

Photos of Smart Education Exhibition

# Partnership

## Beijing Normal University

Beijing Normal University (BNU) is a National Key University directly under the administration of the Ministry of Education, P.R. China. It is a well-known university characterized by teacher education, educational science and basic disciplines in sciences and humanities.

## UNESCO Institute for Information Technologies in Education (IITE)

The UNESCO Institute for Information Technologies in Education (UNESCO IITE) was established as an integral part of UNESCO by the General Conference of UNESCO at its 29th session (November 1997). IITE is the only UNESCO Category 1 Institute with a global mandate for ICT in education.

## Commonwealth of Learning (COL)

Commonwealth of Learning (COL) is an inter governmental organization created by Commonwealth Heads of Government in 1987 to promote the development and sharing of open learning and distance education knowledge, resources and technologies.

## International Society for Technology in Education (ISTE)

The International Society for Technology in Education (ISTE) is a nonprofit organization that has global members in the field of Education Technology. It is the home to a passionate community of global educators who believe in the power of technology to transform teaching and learning, accelerate innovation and solve tough problems in education. ISTE's vision is that education innovators are supported in reimagining and redesigning learning with a focus on using technology to create transformational and equitable experiences for learners.

## The Arab League Educational, Cultural and Scientific Organization (ALECSO)

The Arab League Educational, Cultural and Scientific Organization (ALECSO) is a Tunis-based specialized institution working under the umbrella of the League of Arab States. It is essentially concerned with the development and coordination of the activities related to education, culture and sciences in the Arab World. It includes 22 Member States.

## The Southeast Asian Ministers of Education Organization (SEAMEO)

The Southeast Asian Ministers of Education Organization (SEAMEO) is a regional intergovernmental organization established in 1965 among governments of Southeast Asian countries to promote regional cooperation in education, science and culture in the region.

## National Engineering Research Center of Cyberlearning and Intelligent Technology

CIT was constructed according to Notice from the General Office of NDRC in 2017. It is organized by Beijing Normal University and jointly constructed by Tsinghua University, China Mobile Communications Corporation(CMCC), Elernity and iFLYTEK CO.LTD. In 2021, It has passed the acceptance and optimization integration evaluation organized by the NDRC and the Ministry of Education, and been included in the new sequence management of the National Engineering Research Center. It has become an important part of the national scientific and technological innovation system.

## UNESCO Chair on Artificial Intelligence in Education

The UNESCO Chair is aimed at fostering collaboration and exchange among high-level scholars, experts, and educators from universities and educational institutions in China, as well as in other regions of the world such as Asia, Africa, and Latin America. It strives to advance innovation in artificial intelligence technology and explore effective, ethical applications of AI in education, with a focus on nurturing relevant talent in these areas.

## Faculty of Education of Beijing Normal University

FOE is an organic teaching and research unit of Beijing Normal University. The missions of FOE are to improve the quality of educational innovation nationwide, to educate and prepare professional teachers and future educators, to house the think tank in education, to offer opportunities for International educational exchange and to facilitate the building of the educational and cultural industry in China.

## Faculty of Psychology of Beijing Normal University

The Faculty of Psychology of Beijing Normal University is a world-class psychology discipline construction unit in China. It is also the only National Key Disciplines unit with a first-class psychology discipline.

## Smart Learning Institute of Beijing Normal University

Smart Learning Institute (SLI) is affiliated to Beijing Normal University, and serves as an experimental platform comprising scientific research, technology development and education, which is jointly constructed by
and its parent firm NetDragon Websoft Inc. SLI focuses on researching learning patterns under ICT environments, designing smart learning environments and building platforms that enable life-long learning and support the various, personalized and differentiated learning styles of digital learners.

## China Institute of Education and Social Development

CIESD is a new type of university think tank that focuses on innovation in educational policies and social governance. The Institute adheres to a high-standard orientation and high-quality development. It faces major national strategies, regional development and the academic frontier, aiming to provide consulting and assisting in politics with high-quality achievements.

## UNESCO Education Monitoring Report Team

It adheres to the highest standards of reporting evidence and data to support and guide work, aiming to achieve sustainable development goals related to education. Based on serving beneficiaries and stakeholders, it maintains editorial independence. No influence from any country, organization, suggestion, or group is accepted, always maintaining its own independence.

## UNESCO Global Alliance on the Science of Learning for Education

UNESCO Global Alliance on the Science of Learning for Education is dedicated to bridging the gap between academic research, policy making, and educational practice, promoting the transformation of learning science knowledge into education policy and practice.

## UNESCO International Institute for Higher Education

It is a category institution under UNESCO, established in 1997 in Caracas, Venezuela. IESALC aims to help countries face the challenges of the internationalization of higher education.

## UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP)

The UNESCO Mahatma Gandhi Institute for Peace and Sustainable Development (MGIEP) is a specialized research institute of UNESCO. It is committed to promoting education transformation through programs that promote social-emotional learning, innovative digital learning methods, and capacity building, to achieve Sustainable Development Goal 4.7.

## UNESCO International Institute for Capacity Building in Africa (IICBA)

Founded in 1999 in West Africa, it is a category institution under UNESCO. Its task is to strengthen teacher policy development and construction in Africa.

## International Council for Open and Distance Education (ICDE)

Founded in 1938. Its members include educational institutions, enterprises, and regional associations in the field of open and distance education, and it collaborates with organizations like the Asian Association of Open Universities (AAOU) on international cooperation projects.

## UNESCO International Research and Training Center for Rural Education (INRULED)

The UNESCO International Research and Training Centre for Rural Education (UNESCO INRULED) was established by UNESCO and the Chinese government in 1994 with a mandate to promote sustainable socio-economic development in rural areas. As a Category II center under the auspices of UNESCO, INRULED's research and training activities concentrate on education for rural transformation.

## Collaborative Innovation Centre of Assessment for Basic Education Quality

Collaborative Innovation Centre of Assessment for Basic Education Quality was established in July 2012 and was officially recognized by the Ministry of Education in October 2014. It is the only national-level collaborative innovation center in the fields of education and psychology in China.

## State Key Laboratory of Virtual Reality Technology and Systems

State Key Laboratory of Virtual Reality Technology and Systems is one of the earliest units in China to conduct research and applications in virtual reality technology. After years of development and construction, it has formed a distinct advantage in interdisciplinary team collaboration, combining military and civilian backgrounds, emphasizing both theoretical research and system development, and bridging technological breakthroughs with industry applications.

## Educational Informatization Strategy Research Base, Ministry of Education, P.R. China

Strategic Research Base of Education Informatization (Central China), Ministry of Education, P.R.China, relying on Central China Normal University, undertakes multiple functions such as policy analysis, performance evaluation, decision support, consulting, and training related to educational informatization.

Strategic Research Base of Education Informatization (Beijing), Ministry of Education, P.R.China., relying on Beijing Normal University, focuses on strategic research in the development of smart education, application of artificial intelligence in education, and international comparative studies on educational informatization.

Strategic Research Base of Education Informatization (Northwest), Ministry of Education, P.R.China., relying on Northwest Normal University, concentrates on strategic research in areas like the construction and application of online learning spaces and educational informatization in ethnic regions.

## NetDragon Websoft Inc.

Founded in 1999, NetDragon Websoft Inc. is a leader in China's online game and mobile Internet application industries, as well as a leading force in China's online education and enterprise informatization industries.

## iFlytek Co., Ltd.

Founded in 1999, iFlytek is a well-known intelligent voice and artificial intelligence enterprise in the Asia-Pacific region. It specializes in intelligent voice and speech technology research, software and chip product development, and voice information service solutions.

## China Information Technology Education Journal

The China Information Technology Education Journal is a publication directly under the Ministry of Education of the People's Republic of China. It focuses on exploring the new educational models driven by information technology and digital transformation and develops educational research projects related to school competition activities, teaching, and the development of digital educational resources.

## New Reading Magazine

The national periodical, which is supervised by the National Press and Publication Administration and sponsored by the Chinese Academy of Press and Publication, takes "promoting the reading of all people and building a bookish China" as its purpose, and is committed to becoming the first brand periodical read by all people in China.

## Binglin Education Fund

Through fundraising and receiving donations, the foundation supports the improvement of academic conditions, rewards outstanding teachers and researchers, and provides scholarships to students and research staff.

## The Institute of Higher Education at Beijing Normal University

The Institute of Higher Education at Beijing Normal University is an academic institution dedicated to the development of higher education disciplines, talent cultivation, scientific research, social services, and international exchanges. It undertakes dozens of major projects, including key projects funded by the National Natural Science Foundation, key projects funded by the Social Science Fund, and major research projects in philosophy and social sciences funded by the Ministry of Education.

## Huawei Technologies Co., Ltd.

Huawei Technologies Co., Ltd. is a global leader in information and communications technology (ICT), providing solutions in telecommunications, enterprise solutions, end-to-end equipment, cloud computing, and automotive terminal fields.

## Sino-Finnish Joint Learning Innovation Institute

JoLII is committed to combining the strengths of universities, basic education schools, and companiesin China and Finland, to co-create univrsal,student-centered learning solurions, to better culivatev21st century talents JoLII has established six centers: Learning Rescarch Innovztion Center, LearningGarden Experience Center, Teacher Devekopment Center, Education ICT Center,Dual Degree Center,and Education Research Center.

## Institute for Vocational and Adult Education, Faculty of Education, Beijing Normal University

The Institute for Vocational and Adult Education of Beijing Normal University is an academic organization under the Faculty of Education at the university. It is one of the earliest academic research organizations focusing on vocational education in China.

## CCTV.com

CCTV.com, operated by the China Central Television (CCTV), is the central government-run news website of China, with a full range of broadcast and news resources. It was established in December 1996 and is one of the earliest central government news websites in China, and in 2000 was one of the first to be approved by the central government for major news websites.

## Fuzhou Software Technology Vocational College

Established in 2005, Fuzhou Software Technology Vocational College officially became a school in 2012 under the China Network Communications Co., Ltd. In 2021, it launched the “Fujian Senior Vocational and Technical College School Building Design” to focus on vocational education and the development of software-related disciplines.

## Center of Information & Network Technology, Beijing Normal University

The Information Network Center is a functional organization responsible for the planning, implementation, management and service of school information construction under the leadership of the university Party committee and administration.

## UNESCO Chair on e-Learning

Responsible for the design, implementation, and evaluation of international research strategies at La Rioja International University, and integrating and overseeing various research activities in accordance with the university's core academic fields, including technology, education, communication and social sciences, health, etc.

## Basic Education Curriculum Magazine

Basic Education Curriculum Magazine is under the Ministry of Education's Curriculum and Teaching Division, focusing on research and practical experiences in basic education curriculum management. The journal aims to promote curriculum reforms and explore new educational models.

## School of Educational Technology, Faculty of Education, Beijing Normal University

The School of Educational Technology at Beijing Normal University was established in 2004, with its predecessor being the Modern Educational Technology Research Institute of Beijing Normal University, which was approved by the Ministry of Education in 1979. In the rankings of university programs by various evaluation organizations over the years, the Educational Technology discipline at Beijing Normal University has been ranked as the number one "A++" level secondary discipline

## Beijing Normal University Publishing Group

Founded in 1980, the Beijing Normal University Publishing Group was developed through educational reforms and is one of the fastest-growing educational publishing groups in China. It is also one of the most influential educational publishers in China.

## Bureau of Education of Xiaoshan District, Hangzhou City

Xiaoshan District anchors the overall goal of "still learning Xiaoshan brand and running people's satisfaction education", focuses on the expectation of the masses that "every door has a good school", strengthens confidence, faces up to difficulties, and orderly promotes education and has made new progress and new achievements.

## National Training Center for Kindergarten Principals, Ministry of Education

The National Training Center for Kindergarten Principals was established in June 2011 with approval from the Ministry of Education, aiming to enhance the professional capacity of kindergarten principals. The center undertakes national exemplary training, course research, and industry-standard teacher training.

## Zhejiang Provincial Education Research Institute

Founded in 1979, the Zhejiang Provincial Education Research Institute is affiliated with Zhejiang Normal University. The institute focuses on the promotion of educational theory and practice, with a focus on educational reform and innovation.

## School Alliance of Educational Digitalization

The School Alliance of Educational Digitalization is the first nationwide educational information alliance in China, with 12 branches across major cities like Beijing and Hangzhou. Currently, the alliance includes 76 schools and focuses on the application of information technology in education and the management of educational effectiveness.

## China Unicom

China United Network Communications Group Co., Ltd. was officially established with approval from the State Council. The Beijing branch, as a subsidiary of China Unicom in Beijing, is primarily responsible for the construction and operation of communication networks in the Beijing area. The Smart Education Division focuses on developing digital education and smart education services.

## Beijing Certification Authority

Founded in 2001, it is a state-owned listed company and a leading provider of network trust and data security solutions in China. It is also a licensed electronic certification service provider.

## Beijing Normal University Data Education Application Research Institute

This research institute at Beijing Normal University is affiliated with the university's IT and data science sectors. It focuses on resolving issues related to data-driven education and exploring solutions to education data issues.

## Guangzhou AVA Electronics Technology Co., Ltd.

The company firmly supports the modernization of educational services and specializes in educational information, vocational education, and promoting educational reform, striving to build a cultural brand in the global educational field.

## Chongqing Yuzhong District Education Committee

Responsible for implementing educational laws, regulations, planning, and policies, drafting the district's education development plans, and organizing the implementation of education policies. It also oversees education law enforcement, coordinates, and manages various levels and types of education within the district.

## South China Normal University Education and Artificial Intelligence Research Institute

The South China Normal University Education and Artificial Intelligence Research Institute focuses on "Education + Artificial Intelligence," aiming to establish a research base for the fundamental theory and key technologies of educational AI. It also works on training AI talent for educational purposes and developing innovative research in educational technology and the practical application of Smart Education in social services.

## The Administrative Center for China's Agenda 21

The Administrative Center for China's Agenda 21 was established on March 25, 1994, with approval from the Office of the State Council's Institutional Organization Committee. It is a public welfare institution under the direct administration of the National Natural Science Foundation of China.

## China Industry-University-Research Cooperation Promotion Association (CIUR)

Approved by the State Council, the CIUR is a national innovation platform for promoting industry-university-research cooperation, and it is also responsible for initiating and guiding cooperation with universities and other educational organizations in China and globally.

## China Smart Education Industry Research Cooperation Innovation Platform

Established on August 20, 2024, during the 2024 Global Smart Education Conference, this platform was initiated by Beijing Normal University. It is aimed at promoting smart education innovation through the application of national engineering research and development in education, science, technology, and industrial resources. The platform will work to integrate universities and educational innovation across the country.

## International Telecommunication Union (ITU) - Asia Pacific Advanced Training Center

The ITU Asia Pacific Advanced Training Center is one of the educational and information transmission branches of the International Telecommunication Union. It trains telecommunications and ICT professionals and promotes regional progress in these fields, sharing resources for development.

## Thailand National Institute of Development Administration (NIDA)

The Thailand National Institute of Development Administration (NIDA) was founded on April 1, 1966. Initially serving as a public administration school under the Ministry of Interior, it now focuses on high-level public administration and government training.

## The Open University of China

The Open University of China is directly under the Ministry of Education and is dedicated to promoting lifelong learning. The university focuses on the integration of modern information technologies and aims to advance the development of new higher education models with "Internet+" as the core, targeting the expansion of nationwide higher education.

## Asian e University (AeU)

Located in Southeast Asia, AeU is an open-distance learning university aimed at providing higher education opportunities to those who are excluded from traditional educational systems, enabling access to higher education for all.

## Beijing Normal University Continuing Education and Teacher Training Institute

The institute builds a lifelong learning system for all citizens, creating a new brand of "digital continuing education" and establishing a "teacher continuing education" model to promote the development of science and technology and lead the development and innovation of teacher training.

## Hechuang Technology

A platform aimed at unifying teachers to achieve the effective transformation of technology, creativity, and industrial management.

## 17Edtech

Founded in 2011, 17Edtech is dedicated to building an advanced K12 Smart Education platform, using cutting-edge educational technologies to optimize educational content and improve the efficiency of K12 education across schools, families, and the wider social education market, providing high-quality products and services that usher in a new era of smart education.

## Alibaba Cloud Intelligence Group

Alibaba Cloud Intelligence was established on November 26, 2018, under the Alibaba Group. It is the largest cloud computing platform in Asia and ranks third in the global cloud computing market. It operates in 19 regions worldwide with 55 available zones

## Beijing Weixun Technology Co., Ltd.

WeTrain Technology focuses on virtual reality research, artificial intelligence software development, and the design of deep learning exploration methods for educational management solutions. The company also applies these solutions broadly in education.

## OUC Ubiquitous (Beijing) Education Technology Co., Ltd.

Guokai Pervasive specializes in digital education services for business learning and is engaged in the development of educational software, integrating solutions for educational institutions, and providing multi-level learning content and training services as a creative educational technology company.

## Beijing Yuanli Science and Technology Co., Ltd.

猿编程

Founded on October 24, 2017, Yuanli is committed to innovative exploration in less coding education models. It helps children grasp future-oriented abilities, allowing them to use modern coding to shape the world.

## Acknowledgement

The Hong Kong Jockey Club Charities Trust

## Premier Partners

网龙网络公司 NETDRAGON WEBSOFT INC.

科大讯飞 iFLYTEK

国新文化 | AVA ELECTRONICS 奥威亚

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## Elite Partners

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师大合创 HECHUANG TECHNOLOGY

# Abbreviations

| | |
|---|---|
| AI | Artificial Intelligence |
| AIGC | Artificial Intelligence Generated Content |
| ALECSO | Arab League Educational, Cultural and Scientific Organization |
| AR | Augmented Reality |
| BNU | Beijing Normal University |
| CEO | Chief Executive Officer |
| CEEIA | China Educational Equipment Industry Association |
| CIUR | China Industry-University-Research Institute Collaboration Association |
| COL | Commonwealth of Learning |
| COMEST | World Commission on the Ethics of Scientific Knowledge and Technology |
| CTO | Chief Technology Officer |
| GSE2025 | Global Smart Education Conference 2025 |
| GSENet | Global Smart Education Network |
| K12 | Kindergarten through twelfth grade |
| LLM | Large Language Model |
| ICDE | International Council for Open and Distance Education |
| ICT | Information and Communication Technologies |
| ISTE | International Society for Technology in Education |
| IT | Information Technology |
| ITU | International Telecommunication Union |
| MOE | Ministry of Education |
| MOOC | Massive Open Online Courses |
| P.R.China | People’s Republic of China |
| SDG | Sustainable Development Goal |
| SEAMEO | Southeast Asian Ministers of Education Organization |
| SEED | Student Evaluation Enhancing Development |
| SLIBNU | Smart Learning Institute of Beijing Normal University |
| STEM | Science, technology, engineering and mathematics |
| TVET | Technical and vocational education and training |

| | |
|---|---|
| UN | United Nations |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| AIED | AI in Education |
| UNESCO IBE | UNESCO International Bureau of Education |
| UNESCO ICHEI | International Centre for Higher Education Innovation under the auspices of UNESCO |
| UNESCO IESALC | UNESCO International Institute for Higher Education |
| UNESCO IICBA | UNESCO International Institute for Capacity Building in Africa |
| UNESCO IITE | UNESCO Institute for Information Technologies in Education |
| UNESCO IIEP | UMESCO International Institute for Educational Planning |
| UNESCO INRULED | UNESCO International Research and Training Centre for Rural Education |
| UNESCO MGIEP | UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development |
| UIL | UNESCO Institute for Lifelong Learning |
| VR | Virtual Reality |
| WHO | World Health Organization |
| XR | Extended Reality |

# GSE2025 Photos


2025全球智慧教育大会
Global Smart Education Conference 2025
人机协同催生教育新生态
全球智慧教育大会
Global Smart Education Conference


问询处
Information Desk


全球智慧教育大会
Education Conference 2025
催生教育新生态


香港赛马会慈善信托基
The Hong Kong Jockey Club
Charities Trust


精英合作伙伴
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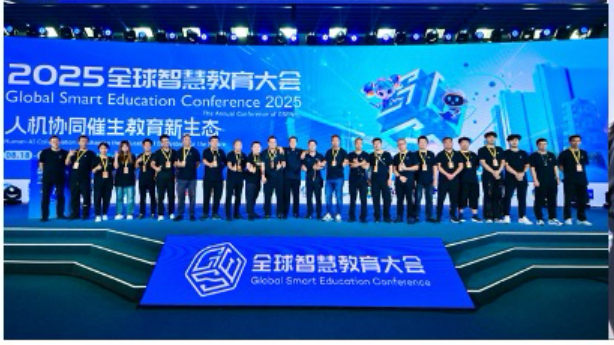
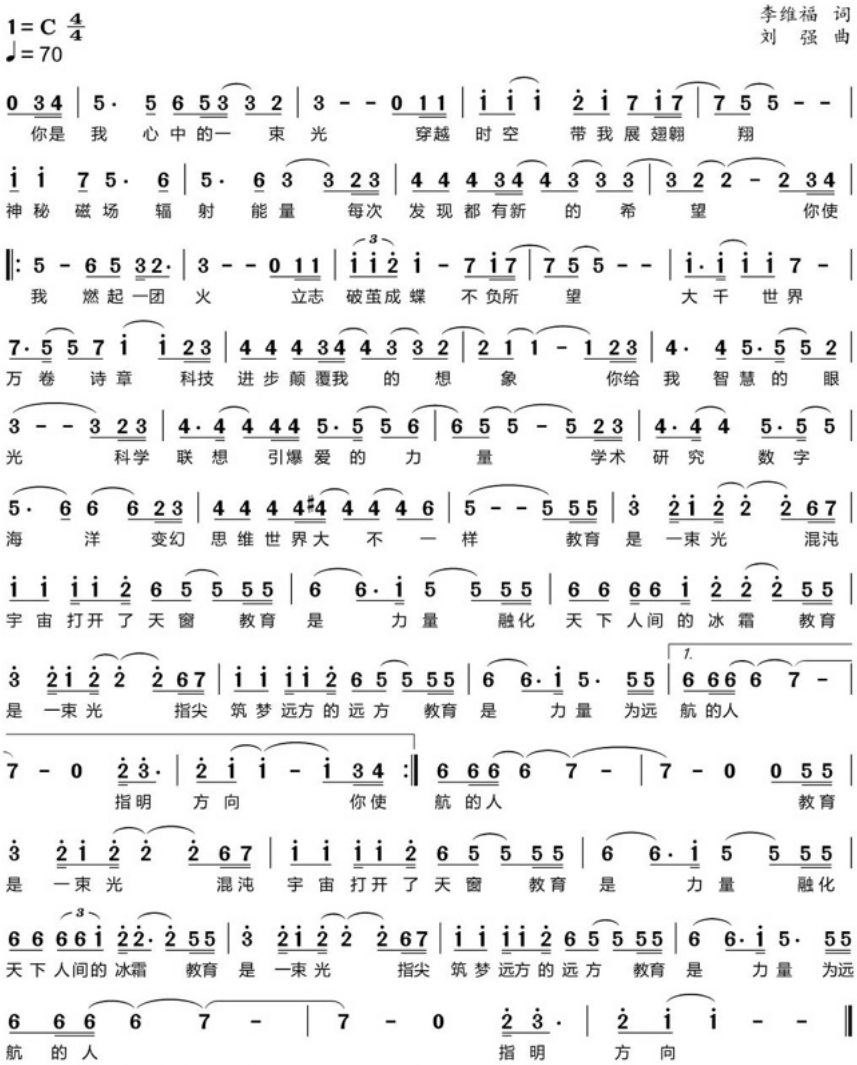
卓越合作伙伴
Premier Partners


2025全球智慧教育大会
Global Smart Education Conference 2025
人机协同催生教育新生态
全球智慧教育大会
Global Smart Education Conference

# Radiance of Education

## 教育之光




Be in awe of education, for it shapes the soul of human,
Be cautious to technologies, for its adoption has to be effective.
Be entangled with Smart, for the uncertainty tends to be increasing,
Be serious to academies, for the true research needs evidence.

---Ronghuai Huang March 20th, 2017

# Radiance of Education

Within my soul, you're a shining light,
Across the skies, with you, I take flight.
Mysterious realm, empowering might,
Each discovery ignites hope in sight.

You ignite in me a passionate fire,
Resolute to grow and aspire.
In this vast world, with hearts so dire,
Technology's progress fuels my desire.

You grant me a discerning gaze,
Science's wonders, love's powerful blaze.
In scholarly seas, where knowledge plays,
Changing the realm of thought's intricate maze.

Education, a luminous ray,
Unveils the cosmos, opening the way.
Education, a potent display,
Melting Earth's frost, come what may.

Education, an illuminating track,
Guiding dreams forward, never looking back.
Education, strength that we lack,
Navigating adventurers on the right track.

Be in awe of education, for it shapes the soul of human,
Be cautious to technologies, for its adoption has to be effective,
Be entangled with Smart, for the uncertainty tends to be increasing,
Be serious to academies, for the true research needs evidence.

# Contact

## Global Smart Education Network:
## Network with the Best for Promoting Smart Education for ALL

GSENet aims to (1) Collaborate on promoting smart learning for all within the framework of SDG4: Quality Education; (2) Share forward-thinking policies and practices to shape the future of education and lifelong learning at the local, national, regional and global levels; (3) Conduct joint open access research, share open educational resources and open source tools for the common good; (4) Promote innovation by combining the power of technology with innovative pedagogy and a human-centred approach; and (5) Build the capacity of teachers to play a leading role in the tripartite matrix of teacher learner-technology.

## Contact of GSE Organizing Committee

Official Website: http://gse.bnu.edu.cn

E-mail: gse@bnu.edu.cn

WeChat: GlobalSmartEducation

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Postcode: 100082

Synthesis Report

# Global Smart Education Conference 2025

## Human-AI Collaboration: Reshaping the Educational Ecosystem for the Future

**The Global Smart Education Conference 2025, held on August 18th-20th, explored the theme 'Human-AI Collaboration: Reshaping the Educational Ecosystem for the Future'. This publication is a synthesis of the key discussions, focusing on expert opinions, thematic activities, research achievements, and collaboration plans. It aims to promote the effective practice of smart education in the global context, strengthen international understanding and international communication, and jointly explore the development direction and practical path of educational reform in the era of intelligence.**

Stay in touch

GSE Website