

Jingshi Wisdom & Learning

Autumn 2024 ISSUE No.31

Standard Serial Number: BNU-044BA

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 'wisdom', for uncertainty tends to be increasing,
Be serious to academics, for academic research requires evidence.

— Dean Ronghuai Huang, delivered at the closing ceremony of the
Second US-China Smart Education Conference on March 20, 2017



Smart Learning Institute
WeChat QR Code

Contact: Jiaoyang Guo

Email: smartlearning@bnu.edu.cn

Phone: 8610-58807219

Website: sli.bnu.edu.cn

Address: 12F, Block A, Jingshi Technology
Building, No. 12 Xueyuan South Road,
Haidian District, Beijing, China

Postcode: 100082

Contact: Bin Luo

Email: smartlearning@bnu.edu.cn

Phone: 0591-88066792

Website: sli.bnu.edu.cn

Address: 851 Building, 69 Wenquan Branch
Road, Wenquan Street, Fulou District,
Fuzhou City

Postcode: 350013



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

Smart Learning Institute of Beijing Normal University

The Smart Learning Institute (SLI) of Beijing Normal University is a comprehensive experimental platform involving scientific research, technology development and instructional teaching, which is jointly established by Beijing Normal University and a global educational technology company, Eternity (a subsidiary of NetDragon). SLI focuses on finding learning patterns powered by ICT, creating smart learning environment and platforms for lifelong learning, as well as supporting diversified, personalized and differential learning needs for digital learners.

- Focusing on the methods of design, optimization and evaluation for learning environment as well as developing the key technologies for learning environment engineering aims at providing a widely-spread solution for promoting smart learning.
- Constructing the theory of smart learning and exploring the approaches of integrating ICT with Education aims at offering an international exchange and cooperation platform to smart learning research.
- Studying on the characteristics and patterns of schooling, family education, community education, enterprise learning and public learning aims at providing support for constructing a learning oriented society and smart city.
- Expanding the experimental areas and schools for smart learning as well as exploring the characteristics of ICT-based instruction and the models of future schools aims at promoting educational transformation and innovation.



Co-Dean Dejian LIU

Chairman of the Board, Executive Director of NETDRAGON, The Special Allowance Expert in State Council, Co-Dean of Smart Learning Institute of Beijing Normal University, Chair Professor at the College of Education of Harvard University.

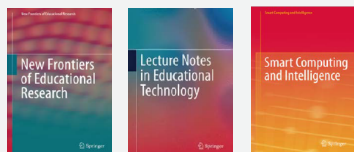


Co-Dean Ronghuai HUANG

Co-Dean of Smart Learning Institute of Beijing Normal University, Director of UNESCO International Research and Training Centre for Rural Education, Director of National Engineering Laboratory for Cyberlearning and Intelligent Technology.

Open Series in Springer

- *New Frontiers of Educational Research*
Editors: Shi Z., Huang, R., & Zhou Z.
- *Lecture Notes in Educational Technology*
Editors: Huang, R., Kinshuk, Jemmi, M., Chen, N.-S., & Spector, J. M.
- *Smart Computing and Intelligence*
Editors: Huang, R., Kinshuk, & Sampson, D.



Springer's Journals

- *New Frontiers of Educational Research*
Editors: Shi Z., Huang, R., & Zhou Z.
- *Lecture Notes in Educational Technology*
Editors: Huang, R., Kinshuk, Jemmi, M., Chen, N.-S., & Spector, J. M.
- *Smart Computing and Intelligence*
Editors: Huang, R., Kinshuk, & Sampson, D.



Design and Learning Laboratory

Study on the features and patterns of design, computational and innovative thinking for youth; Develop courses and books about design methodology, computational thinking and ICT; Build cooperative platform with world-renowned universities, enterprises and institutes for design and innovation.



Course in Harvard University



Smart City and Learning Environment Laboratory

Study on the typical learning fields in smart cities and learning societies; Create database of smart learning environment; Publish serial reports on learning environment as well as service industry and products of cyberlearning.



Open Educational Resources (OER) Laboratory

Study on the solution of OER under its impact to the developing countries; Construct the OER community for The Belt & Road countries; Publish reports on the trends of ICT in education.



GSE Conference



IAU visited

ICT-based Instruction Center

Explore the methodology of integrating ICT into education with large-scale experiments; Study on the solutions of smart classroom and smart campus; Provide the services for transferring education through the bridge of the theory and practice.



Smart Education Demonstration Zone

Educational Robotics Center

Study on the scenarios of robotics in education and the trend of artificial intelligence; Develop the courses for robotic education and STEAM education for K-12 schools. Design educational robotic for various learning fields, such as school, family, etc.





Autumn 2024, ISSUE No.31

Chief Editor

Haijun Zeng

Editorial Board

Tingwen Chang

Hongyan Kuai

Rongxia Zhuang

Yanli Jiao

Youjie Yao

Jiaoyang Guo

Xin Li

Yujia Yang



Any feedback or suggestions, please contact us via the following methods:

Email: smartlearning@bnu.edu.cn

Phone: (8610)58807219

Address: 12F, Block A, Jingshi

Technology Building, No. 12
Xueyuan South Road, Haidian
District, Beijing, China

Postcode: 100082

Website: <http://slj.bnu.edu.cn/>

目录

Autumn 2024

Features 04-36

The Global Smart Education Conference 2024

- Conference Schedule Overview
- Opening Ceremony and Forums
- List of 2024 Outstanding Smart Education Cases
- Award List of the Global Smart Education Innovation Prize
- Achievement Release

The 7th Global Competition on Design for Future Education

- Higher Education Track
- Primary and Secondary School Track
- Vocational Education Track
- Interpretation of the Competition Topics for the Vocational Education Track

Cooperation and Communication 37-38

- Dean Ronghuai Huang Visited Thailand and Attended the ICNB 2024 International Conference
- Asha S. Kanwar, Chair Professor of the Institute, Was Invited to Attend the "Forum on Artificial Intelligence and Education" of the World Artificial Intelligence Conference 2024 and Delivered a Keynote Speech



Books & Articles 39-45

- Analysis of Student Community Interaction Behavior for Digital Society
- The Future Educational Evolution Driven by Brain and Cognitive Science and Artificial Intelligence
- Towards the Basic Theories of Teaching Transformation in the Digital Age: Digital Pedagogy
- The Technology Ethical Orientation and Risk Governance for Smart Education Artificial Intelligence Large Model into Education: Conceptual Change, Form Reshaping, and Key Initiatives
- Special Issue Collection on "Computational Thinking Moving towards 2.0" | Exhibition of Excellent Achievements of the 8th APSCE International Conference on Computational Thinking and STEM Education
- Huang Lulu: Digital Technology Becoming a Leading Force in Promoting Educational Transformation - Observation of the Global Smart Education Conference 2024

Important Events 46-50

- Yuanzhuo Xuetang (Yuanzhuo Academy)
- Advanced Training Camp on "AIGC Empowering Human-Machine Collaborative Teaching"
- Forum on Adolescent Artificial Intelligence Literacy and General Education Held in Beijing
- "China-Africa Adolescent Artificial Intelligence Literacy Dialogue" Successfully Held
- Chinese Team Won Outstanding Achievements in the First International Olympiad in Artificial Intelligence (IOAI)

Features

The Global Smart Education Conference 2024

Conference Schedule Overview



2024 全球智慧教育大会
Global Smart Education Conference 2024
中国·北京 Beijing·China 08.18 - 08.20

报名小程序

GSE2024			
8月18日 星期日	8:30-12:00	开幕式 暨全体会议：数字变革与教育转型	
	14:00-18:00	迈向智慧教育的数字化转型论坛	青少年身心健康与个性化成长论坛
8月19日 星期一	8:30-12:00	基础教育数字化与面向未来的学校变革论坛	数字校园与智能教育装备论坛
	14:00-18:00	数字化开辟区域教育发展新赛道论坛	数字教材建设与应用论坛
8月20日 星期二	8:30-12:00	人工智能引领高等教育高质量发展论坛	人工智能与未来教师论坛
	14:00-17:00	科教融汇与产教融合论坛	数字化教学促进终身学习论坛
	17:00-18:30	闭幕式	
智慧阅读论坛			
学前教育教育论坛			
智慧乡村与农村教育论坛			
智慧教育创新研究与实践探索论坛			

专题活动	
8月18日	15:00-17:00 智慧教育女性领导力闭门会议
8月19日	10:00-12:00 中非人工智能与教育合作闭门会议
8月19日	15:00-17:00 小岛屿国家数字教育发展闭门会议
8月20日	11:00-12:00 全球智慧教育合作网络（GSENet）伙伴闭门会议
8月21日	9:00-18:00 联合国教科文组织教育信息技术研究所理事会
8月20日	9:00-12:00 第七届全球未来教育设计大赛（中小学赛道）终审
8月20日	14:00-17:00 智慧学习与未来教育设计学生论坛
8月18-24日	9:00-18:00 东南亚国家职业教育校长工作坊
8月18-20日	8:00-18:00 智慧教育展

Logo: unesco, COL, ISTE, ALECSO

Opening Ceremony and Forums

On August 18 (Beijing Time), the "Global Smart Education Conference 2024 (GSE2024)" opened in Beijing. With the theme of "Educational Transformation and International Understanding", the conference invited experts, scholars, and front-line teachers from the education, technology, and enterprise sectors at home and abroad to discuss ways of digital transformation and educational reform, focus on the digital strategic planning of the international community, explore paths for the digital transformation of education, reflect on the problems and challenges faced, and share new theories, technologies, viewpoints, and achievements in smart education. The conference attracted over 400 international and domestic guests and more than 1,500 on-site participants.

The conference was co-hosted by Beijing Normal University (BNU) and the UNESCO Institute for Information Technologies in Education (IITE), undertaken by institutions including the Smart Learning Institute of Beijing Normal University (SLIBNU), and supported by international organizations such as the Arab League Educational, Cultural and Scientific Organization (ALECSO) and the Commonwealth of Learning (COL), as well as a number of enterprises. It focused on the digital transformation of education, discussed the global development trends and practices of smart education, and aimed to promote educational equity, inclusiveness, and sustainable development.



Wang Jiayi, Vice Minister of Education of the People's Republic of China, emphasized the key role of digitalization in educational transformation, put forward three initiatives of strengthening policy dialogue, resource sharing, and capacity building, and called for global cooperation to advance the development of smart education. Yu Jihong, President of Beijing Normal University, pointed out that artificial intelligence is reshaping education, and suggested adhering to the principle of putting people first in education, problem-oriented approach, and maintaining integrity while promoting innovation to drive the reconstruction of teachers' competencies and literacy. Stefania Giannini, Assistant Director-General for Education of UNESCO, stressed the importance of educational transformation and international understanding, and expressed the expectation to promote cooperation and innovation through the conference to achieve the common goals of peace, equity, and sustainable development.

A number of international guests shared the practices and challenges of various countries in the field of educational digitalization. Maryam Mariya, Minister of Higher Education, Human Resources and Skills Development of the Maldives, introduced the measures taken by the Maldives to promote educational inclusiveness and innovation through online learning platforms. Justin Valentin, Minister of Education of Seychelles, emphasized the importance of integrating technology into educational management and classroom practice, and expressed the expectation for more international cooperation. Lucas Dawa Dekena, Minister of Education of Papua New Guinea, pointed out that smart education is crucial for bridging the technological gap and promoting educational equity. KILO Vivian ASHERI, Secretary of State for Basic Education of Cameroon, introduced the achievements and challenges of Cameroon in the digital reform of education, and emphasized the priority of developing digital capabilities.

Bo Chan koulika, Under-Secretary of State for Education, Youth and Sports of Cambodia, called for the reform of the education system to adapt to technological and social development and cultivate students with digital skills. Adnan Husić, Assistant Minister of Civil Affairs of Bosnia and Herzegovina, called for bridging the digital divide, strengthening the construction of digital infrastructure, and building a future-oriented education system. Mohamed Ould Amar, Director-General of the Arab League Educational, Cultural and Scientific Organization (ALECSO), emphasized the importance of digital transformation and suggested strengthening cooperation between Arab countries and China in fields such as scientific research and cultural exchanges.

The conference released the research report "Global Understanding of Smart Education in the Context of Digital Transformation", which proposed that smart education is becoming a common strategic vision for the world to address the challenges of the artificial intelligence era, and emphasized core characteristics such as learning, assessment, infrastructure, sustainability, and equity. The report pointed out that global digital education policies should continue to promote the construction of digital infrastructure, give priority to the development of digital human resources, and create a high-quality, inclusive, and sustainable digital education ecosystem. In addition, the conference also released a number of important achievements, including the intelligent transformation of educational resources and the construction practice of a hierarchical intervention system for adolescent mental health, providing practical guidance for the innovative development of smart education.



The conference called on the global community to strengthen policy dialogue, resource sharing, and capacity building to jointly promote the sustainable development of smart education. Through technological innovation, cross-sectoral collaboration, and the construction of a ubiquitous learning environment, smart education will provide solid support for educational equity, inclusiveness, and quality improvement, and help achieve the Education 2030 Goals.

Forum on Digital Transformation through Smart Education



The Forum on Digital Transformation through Smart Education of the Global Smart Education Conference 2024 was held at Beijing Normal University on August 18. Experts at home and abroad conducted in-depth discussions on topics such as smart education strategies, educational digital transformation, and the construction of digital learning platforms. The forum was co-undertaken by the Educational Informatization Strategy Research Base of the Ministry of Education, the Changsha Municipal Bureau of Education, the Arab League Educational, Cultural and Scientific Organization (ALECSO), iFLYTEK, and NetDragon Websoft Inc.

Forum on Mental & Physical Health: Supporting Personal Development of Adolescents



The Forum on Mental & Physical Health: Supporting Personal Development of Adolescents was co-undertaken by the Faculty of Psychology of Beijing Normal University, the Smart Learning Institute of Beijing Normal University, and Jingshi Ruidao, and was held in Beijing Lecture Hall 1 from 14:00 to 18:00 on August 18, 2024. Focusing on the empowerment of intelligent technology in promoting the physical and mental health development of adolescents, the forum discussed topics such as the growth laws of the digitageneration, mental health assessment and intervention, and smart physical education and aesthetic education, aiming to promote the all-round development and personalized growth of adolescents.

The opening speech session

The opening speech session was hosted by Tigran Epovan, Director of the Health Education Information and Communication Technology Department of UNESCO. KILO Vivian ASHERI, Secretary of State for Basic Education of Cameroon, and Dorothy Gordon, former Chair of the UNESCO Information for All Programme (IFAP), delivered speeches, emphasizing the importance of global collaboration and technological empowerment in promoting adolescent health.

The keynote speech session

In the keynote speech session, a group of international and domestic experts gathered: Obijiofor Aginam, Director of the UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development, discussed the path of education for sustainable development; Qiao Zhihong, Professor of the Faculty of Psychology of Beijing Normal University (Secretary-General of the National Student Mental Health Work Advisory Committee), analyzed the mental health service system; Didier Jourdan, Head of the WHO Collaborating Center, Mao Lijuan, President of Shanghai University of Sport, and Lu Yuxin, President of Jiangsu Academy of Educational Sciences, shared their experiences from the perspectives of health education, physical education, and scientific research practice respectively.

Achievement release session

In the achievement release session, Nan Hao, CEO of Jingshi Ruidao, released the "Cloud Platform for Mental Health Services of Primary and Secondary School Teachers and Students", providing a digital solution for mental health services.

The invited speech session

The invited speech session invited scholars and front-line educators at home and abroad, including Srdjan Dusanic, Dean of the Faculty of Psychology of the University of Banja Luka (Bosnia and Herzegovina), Zhou Mingming, Vice Dean of the Faculty of Education of the University of Macau, and Chen Liangying, Professor of Central China Normal University, to conduct in-depth discussions on mental health services, cognitive security, and smart aesthetic education, covering multiple perspectives such as data analysis, art education, and regional practice. The session was hosted by Professor Cheng Li of Beijing Normal University.

Through interdisciplinary dialogue and international experience sharing, the forum promoted the in-depth integration of intelligent technology with mental health, physical education, and aesthetic education, and provided theoretical and practical support for building a scientific and precise support system for adolescent growth.

Forum on Smart Reading

As an important part of the "Global Smart Education Conference 2024", the Smart Reading Forum was guided by the Chinese Academy of Press and Publication, co-undertaken by New Reading Magazine, the International Writing Center of Beijing Normal University, and the Smart Learning Institute of Beijing Normal University, and was held in Beijing Lecture Hall 2 from 14:00 to 18:00 on August 18, 2024. Focusing on the transformation of reading in the digital era, the forum conducted discussions on topics such as "new methods of smart reading and reading education", "the application of technology in reading and publishing", "the construction of smart reading platforms", and "digital reading spaces and smart libraries", aiming to promote national reading and the construction of a lifelong learning society.



The forum agenda was divided into four parts:

Opening speech session

In the opening speech session, hosted by Cui Haijiao, Vice President of the Chinese Academy of Press and Publication, Wei Yushan, President of the Chinese Academy of Press and Publication, and Xi Chuan, Poet of the International Writing Center of Beijing Normal University, delivered speeches, emphasizing the social value of reading and the trend of digital transformation.

keynote speech session

In the keynote speech session, a number of experts gathered: Xiong Yuanming, former Director of the National Library of China; Wang Zhigeng, Vice Curator of the China National Version Pavilion; Professor Xie Youru of South China Normal University (national-level leading talent); Professor Bian Yufang of Beijing Normal University (Chair of the Academic Committee of the China Basic Education Quality Monitoring Collaborative Innovation Center); Fan Rulai, Director of the Library and Reading Department of the Ministry of Education; and Professor Li Hongyan of Communication University of China. They discussed cutting-edge topics such as the application of reading technology, the integration of mental health and reading education, and the development of smart libraries.

Invited speech session

The invited speech session was hosted by Liao Shuyuan of China Post Group Corporation Limited, and invited representatives from the publishing and education sectors, including Xu Shengguo, Director of the Chinese Academy of Press and Publication, Xu Haifeng, President of Foreign Language Teaching and Research Press (FLTRP), and Wang Lin, Director of People's Education Press (PEP), to share experiences in building a digital reading ecosystem, innovating children's reading publishing, and practicing campus reading spaces.

The reader dialogue session

The reader dialogue session was hosted by Lu Yanmin, Deputy Editor-in-Chief of New Reading Magazine. Representatives of diverse groups, including Xue Xiaoping, President of the Silver Age Book Institute, Lu Yuan, Editor of "Chinese Writers", and Hao Xinyue, PhD Student of Moscow State Pedagogical University, conducted intergenerational and cross-cultural dialogues on the theme of "Favorite Books and Reading Stories", demonstrating the humanistic warmth of reading.

Through policy interpretation, technical discussions, and practical case sharing, the forum promoted the in-depth integration of technology and reading, and provided theoretical support and practical paths for building a new smart reading ecosystem.

Forum on Digital Transformation of K-12 Education



The Forum on Digital Transformation of K-12 Education of the Global Smart Education Conference 2024 was held at Beijing Normal University on August 19. Educational officials, experts, scholars, and industry elites gathered to discuss topics such as the challenges and opportunities of digital transformation for basic education, new teaching models, future learning spaces, and smart campus solutions. The forum was co-undertaken by the National Engineering Research Center of Cyberlearning and Intelligent Technology, the Shenzhen Municipal Bureau of Education, and the Southeast Asian Ministers of Education Organization (SEAMEO), and co-organized by the Shenzhen Welkin School and Unisplendour Modu Education.

Forum on Smart Learning Environments and Digital Infrastructur

The Forum on Smart Learning Environments and Digital Infrastructur of the Global Smart Education Conference 2024 was held at Beijing Normal University on August 19, focusing on the important role of smart campuses and intelligent educational equipment in educational reform. Experts and scholars at home and abroad jointly discussed new concepts and solutions to promote educational transformation and data governance. Zeng Dehua, Deputy Director of the Educational Management Information Center of the Ministry of Education, emphasized that we should seize the opportunity of educational digitalization, improve the digital experience of teachers and students, promote the sharing of high-quality resources, and promote basic education equity, vocational education training, and higher education innovation. The forum was guided by the China Educational Equipment Industry Association, undertaken by institutions including the Information Network Center of Beijing Normal University, and co-organized by Jinshajiang Technology and NetDragon Websoft Inc.



Forum on AI for Comprehensive Assessment and Evaluation



The Forum on AI for Comprehensive Assessment and Evaluation was co-undertaken by the Institute of Big Data Application in Basic Education of Beijing Normal University and the National Engineering Research Center of Cyberlearning and Intelligent Technology, and was held in Beijing Lecture Hall 2 from

8:30 to 12:05 on August 19, 2024. Focusing on the application of artificial intelligence and big data technology in educational evaluation, the forum aimed to sort out the development history of comprehensive quality evaluation, explore its future direction, and share theoretical and practical innovation experiences supported by intelligent technology. The forum agenda was divided into four parts:

Opening speech session

In the opening speech session, hosted by Professor Chen Li of Beijing Normal University, a representative from the Department of Science, Technology and Informatization of the Ministry of Education delivered a speech, emphasizing the importance of intelligent technology-driven reform in educational evaluation.

Keynote speech session

In the keynote speech session, Professor Liu Zhijun, Secretary of the Party Committee of Henan University of Technology, was invited to discuss the construction path of an intelligent technology-empowered student comprehensive evaluation system; Professor Zheng Qinhu of Beijing Normal University, Executive Deputy Director of the National Engineering Research Center of Cyberlearning and Intelligent Technology, shared

practical experiences in technology-empowered evaluation innovation. The session was hosted by Professor Li Shuang.

Special report sessio

In the special report session, leaders of education departments from various regions gathered, including Dong Cheng, Vice Director of the Education Department of Heilongjiang Province, Nie Tingfang, Vice Director of the Changsha Municipal Bureau of Education, Yang Jun, Director of the Nanshan District Bureau of Education of Shenzhen City (Provincial Inspector of Guangdong Province), and Zhong Wenchuan, Director of the Nanhai District Bureau of Education of Foshan City. They conducted discussions on the practical reform of regional educational evaluation, covering topics such as regional policy exploration, technology integration application, and evaluation model innovation. The session was hosted by Professor Li Shuang.

Summary session

In the summary session, Professor Li Shuang sorted out the achievements of the forum, emphasizing the supporting role of artificial intelligence technology in promoting the systematic reform of educational evaluation, and providing a path reference for the high-quality development of future educational evaluation.

Through policy interpretation, technical discussions, and practical case sharing, the forum promoted the in-depth integration of intelligent technology and educational evaluation, helping to build a scientific, dynamic, and inclusive student comprehensive quality evaluation system.

Forum on Digitalization for Regional Educational Development



On August 19, the Forum on Digitalization for Regional Educational Development of the Global Smart Education Conference 2024 was held in Beijing. Experts, scholars, and industry elites from domestic and foreign universities, regional education bureaus, and

technology companies gathered to discuss topics such as the integrated, intelligent, and international development paths of regional education, the digital governance model of regional education, and the innovative practice of regional education digital transformation. The forum was co-undertaken by the Smart Learning Institute of Beijing Normal University, the International Society for Technology in Education (ISTE), the Southeast Asian Ministers of Education Organization (SEAMEO), the Education Bureau of Liangjiang New Area of Chongqing, People's Network Information Technology Co., Ltd., Hailiang Group Co., Ltd., and Onion Academy.

Forum on Development and Use of Digital Textbooks



The Forum on Development and Use of Digital Textbooks of the Global Smart Education Conference 2024 was held in Beijing on August 19, co-hosted by Beijing Normal University and the UNESCO Institute for Information Technologies in Education (IITE), and undertaken by institutions

including Higher Education Press. Tian Lixin, Director of the Institute of Curriculum and Textbook Research, Maryam Mariya, Minister of Higher Education of the Maldives, and Liu Chao, President of Higher Education Press, attended and delivered speeches. Tan Fangzheng, Chief Editor of Higher Education Press, delivered a keynote report. The forum focused on the construction and application of digital teaching materials to promote the innovative development of education.

Forum on Smart Learning in Early Childhood Care and Education

The Forum on Smart Learning in Early Childhood Care and Education of the Global Smart Education Conference 2024 was held on August 19, gathering experts and principals in early childhood education at home and abroad to discuss hot topics such as the high-quality development of



of early childhood digital intelligence education, the construction of digital intelligence resources, and talent training. Chen Guangju, former Vice President of Beijing Normal University, emphasized that educational digitalization is the foundation for building a powerful education country, advocating a child-centered approach and combining digital technology to innovate teaching models. Marc Prensky, an American education expert, shared insights into future education, encouraging the adoption of new methods to enhance the learning experience and meet the needs of the digital era.

Forum on AI-driven Innovation in Higher Education



On the morning of August 20, the Forum on AI-driven Innovation in Higher Education, co-undertaken by Beijing Normal University, the Education University of Hong Kong, the Hong Kong Polytechnic University, and the UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC), was successfully held in Beijing. The forum focused on the multi-dimensional practical challenges faced by higher education in the process of digital transformation and the core concerns of educational digitalization, attracting many experts and scholars at home and abroad to participate.

Forum on AI and the Future of Teaching

On August 20, 2024, the Forum on AI and the Future of Teaching of the Global Smart Education Conference was held at Beijing Normal University, co-undertaken by institutions including the UNESCO Institute for Information Technologies in Education (IITE) and the Faculty of Education of Beijing Normal University, and co-organized by Tencent Cloud. Guests from China, France, Russia, and other countries attended the forum. Lu Xuzhong from the Teacher Work Department of the Ministry of Education



emphasized that artificial intelligence will not replace teachers, but will eliminate teachers who cannot use AI. Amal El Fallah Seghrouchni, Executive Chair of the International Artificial Intelligence Center of Morocco, pointed out that the combination of generative AI and neuroscience can track brain activities and explain phenomena such as post-traumatic stress disorder. Zhu Xudong, Dean of the Faculty of Education of Beijing Normal University, called for the comprehensive AI-enabled transformation of education disciplines, covering teacher training and educational technology.

Forum on Smart Villages and Education for Rural Transformation

The Forum on Smart Villages and Education for Rural Transformation of the Global Smart Education Conference 2024 was held at Beijing Normal University on August 20, co-undertaken by the UNESCO International Research and Training Centre for Rural Education (INRULED) and the SEAMEO Regional Centre for Technical Education Development (SEAMEO TED). Nearly 100 policymakers, experts, scholars, and representatives of international organizations from China, Australia, Southeast Asia, and other countries attended the forum on-site, and more than 3,000 people watched online. The forum conducted discussions on topics such as digital technology empowering rural education transformation and promoting rural sustainable development, and shared theoretical research and practical experiences. Zhou Zuoyu, Vice President of Beijing Normal University, emphasized that attention should be paid to the "digital divide" between urban and rural areas, and digital technology should be used to promote the high-quality development of rural education, support rural revitalization and green transformation, and build an inclusive learning-oriented countryside.



Forum on Integration of Education, Technology and Industry

On the afternoon of August 20, the Forum on Integration of Education, Technology and Industry of the Global Smart Education Conference 2024, guided by the Administrative



Center for China's Agenda-21 and the China Industry-University-Research Institute Collaboration Association, and co-undertaken by the National Engineering Research Center of Cyberlearning and Intelligent Technology, the Laboratory of Cognitive Vision Towards

Evolvable Algorithms and Models, and the UNESCO Institute for Information Technologies in Education (IITE), was held at Beijing Normal University. Wang Jianhua, President of the China Industry-University-Research Institute Collaboration Association, Saoussen KRICHEN, Director of the Information Department of the Ministry of Higher Education and Scientific Research of Tunisia, and Wang Shunbing, Deputy Director (acting as Director) of the Social Undertakings Department of the Administrative Center for China's Agenda-21, attended the forum and delivered speeches. Experts and scholars from the domestic and foreign education, technology, and industry sectors gathered to jointly explore new paths for the integration of science and education and industry and education to promote the innovative development of smart education in the intelligent era.

Forum on Digital Education and Lifelong Learning



On the afternoon of August 20, the Forum on Digital Education and Lifelong Learning, co-undertaken by the National Engineering Research Center of Cyberlearning and Intelligent Technology, the UNESCO Institute for Information Technologies in Education (IITE), the Commonwealth of Learning (COL) and the Virtual Simulation Experimental, Teaching Alliance, and co-organized by NetDragon Websoft Inc., was successfully held at Beijing Normal University. As part of the Global Smart Education Conference 2024,

this forum mainly discussed topics such as the evolution of new technologies and smart learning environments, digital transformation and the innovative application of learning resources, learning laws and digital teaching methods in the digital era, digital resources, teaching materials, and equipment for experimental teaching, and the construction of universal lifelong learning and a learning society.

Forum on Innovation, Research and Best Practices in Smart Education



On the afternoon of August 20, the Forum on Innovation, Research and Best Practices in Smart Education was held in Beijing. Co-undertaken by institutions including the National Engineering Research Center of Cyberlearning and Intelligent Technology, the forum focused on smart education as a new form of education in the digital era, which is an inevitable choice for promoting equitable, inclusive, and high-quality education. To further advance the digitalization of education and develop smart education, the key lies in cultivating digital thinking, consolidating digital support capabilities, building high-quality digital learning content, and constructing a public service system for digital learning. Regional administrators, school administrators, and front-line teachers are the main bodies of the "practical approach" to smart education, supporting and leading innovative practices.

Student Forum on Youth Intelligence Inspiring Future Education Innovation

On the afternoon of August 19, 2024, the Student Forum on Youth Intelligence Inspiring Future Education Innovation of the Global Smart Education Conference 2024 was held at Beijing Normal University. The forum brought together 187 college student representatives from Beijing, Guangzhou, Shenzhen, and other places, as well as experts and scholars in related fields, to jointly discuss the application of artificial intelligence in fields such as smart physical education



the digitalization of ideological and political courses, interdisciplinary learning, and family education. Zeng Haijun, Vice Dean of the Smart Learning Institute of Beijing Normal University, and Marc Prensky, the proposer of the concept of "digital natives", attended the forum.

Student Forum on Smart Learning and Future Education Design



On the afternoon of August 20, 2024, the Student Forum on Smart Learning and Future Education Design of the Global Smart Education Conference 2024 was held at the Changping Campus of Beijing Normal University. The forum invited 14 college student representatives from 9 countries and experts in education and design fields to conduct discussions on topics such as the design of ubiquitous learning spaces and the design of high-quality educational resources through a combination of online and offline methods, with a focus on the application and challenges of Artificial Intelligence Generated Content (AIGC) in education. Guests in attendance included Song Weizu, Natalia Amelina, and Professor Chen Guangju. The forum was hosted by Wang Huanhuan, Usama Kalim, and others.

▶ List of 2024 Outstanding Smart Education Cases

To further advance the strategic action of educational digitalization, develop smart education in depth, promote the summary and mutual learning of experiences in the field of smart education, and strengthen the sharing and international communication of outstanding cases, under the guidance of the Department of Science, Technology and Informatization of the



Ministry of Education, the Secretariat of the Expert Group of the "Smart Education Demonstration Zone" Creation Project and the Educational Informatization Strategy Research Bases (Beijing, Central China, Northwest China) of the Ministry of Education carried out the 2024 Outstanding Smart Education Case Collection Activity.

After application/recommendation, training, and selection, a total of 540 outstanding smart education cases and 611 nominated outstanding smart education cases were identified.

▶ Award List of the Global Smart Education Innovation Prize



GSEIP-理论创新奖 Research Innovation 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)
1	"互联网+教育"基本理论自主创新成果 Creative Achievement in Developing Fundamental Theories of 'Internet Plus Education'	陈丽1, 郑勤华1, 张婧婧1, 王志军2, 赵宏1, 徐亚楠3, 郭玉娟1, 王林波1	1.北京师范大学; 2.江南大学; 3.青岛大学
2	朴道而行, 见智见人: 祝智庭教育信息化学术思想素描 A Sketch of Professor Zhu Zhiting's Academic Thoughts on Educational Informatization	祝智庭1, 钟志贤2, 易洪娟3	1.华东师范大学; 2.江西师范大学; 3.中国教育科学研究院

GSEIP-实践创新奖 Practice Innovation 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)
1	Pepper in the Classroom: Enhancing Education through Robotics and AI	Maja Babic, Branka Miticevic, Mirjana Ilic, Ivana Dimitrijevic, Danica Nikolic, Danica Simovic, Nemanja Segrt, 1-4 grade students	Savremena Primary School, Serbia
2	深圳市云端学校: 智慧教育的新常态 Shenzhen Welkin School: A New Paradigm of Smart Education	龚卫东, 汤幸初, 陈浩	深圳市云端学校
3	数字化转型赋能区域教育高质量发展 Digital Transformation Empowers High-quality Development of Regional Education	王妍1, 莫蕊芳1, 缪雅琴1, 周小青1, 汪建业1, 黄军山2, 黄旭3	1.长沙市教育局; 2.长沙市教育科学研究院; 3.长沙市现代教育技术中心
4	数字化赋能心理健康教育, 促进多民族地区学生健康成长的青海实践 The implementation of digital technologies to enhance mental health education for promoting the holistic development of students in multi-ethnic regions within Qinghai Province	申红兴, 李海胜, 甘昌福, 魏海东, 王捷	青海省教育厅

GSEIP-技术创新奖 Technology Innovation 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)
1	讯飞星火智慧黑板 iFLYTEK Spark Smart Blackboard	周佳峰, 郭红杰, 王先民, 陈玉珏, 占进冬, 石楠, 李胜才, 李修彦	科大讯飞股份有限公司
2	基于多模态图像的智能身份识别关键技术及教育场景规模化应用 Key technology of identity recognition based on multimodal image intelligence and large-scale application of educational scenarios	阮吉鹏1, 胡国志1, 肖进胜2, 岳昱昌2, 张睿1, 王健1, 迁华奇1	1.北京金沙江科技有限公司; 2.武汉大学

GSEIP-提名奖 Nomination 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)
1	Accidental Learning through Flexible Learning Experience with Modular Academic Progression	Axshad Saleem Bhatti1, Fakhr Inam1, Oshim Sheikh2	Virtual University of Pakistan (VU)
2	面向可解释的大模型增强个性化学习资源推荐系统 Enhancing Personalized Learning Resource Recommendation System with Interpretable	王任辉, 谢帆, 李邦序, 虞玮, 张睿	同济大学
3	高等教育出版社数字教材“云创”平台 Higher Education Press Digital Textbook Yunchuang Platform	李健2, 谢涛1, 钟光磊1, 郑密萍2, 陈星月1, 孙洁江1, 韩露微1, 范元天1, 田敏2, 方永健2, 郝超2, 马小婧2	1.高等教育出版社信息技术部; 2.高等教育电子音像出版社
4	重庆两江新区智慧教育“644”模式 Smart Education '644' Model in Langsheng New Area, Chongqing	李卓一&2, 王琴2	1.重庆两江新区教育局; 2.重庆智慧教育创新中心
5	区域虚拟实验教学规模化应用实践探索 Exploration on large-scale application of regional virtual experiment teaching	傅野1, 盛晋1, 范明1, 朱嘉卉1, 张进1	1.汉阳区教学研究培训中心; 2.武汉市第三高级中学; 3.武汉市第二十三中学
6	虚拟现实技术在少数民族地区教学中的实践与应用研究 Practice and Application of Virtual Reality Technology in Teaching in Ethnic Minority Areas	吴定军, 戴向东, 刘朝芳	四川省凉山彝族自治州美宁县泸沽小学校
7	人工智能与社交结构赋能知识创新共同体的科学实践探索 Promoting Authentic Scientific Practices through Idea-Friendly Maps and Opportunistic Collaboration in a Knowledge-Creating Community	冯雪琦1, Carol Chan2, Jan van Aalst2, 杨玉丹3, 赵建华1	1.南方科技大学未来教育研究中心; 2.香港大学教育学院; 3.华中师范大学人工智能教育学部

➤ Achievement Release

Release of the Achievement "The Most Beautiful Teaching Resource Unit - Photosynthesis"

From August 18 to 20, 2024, the Global Smart Education Conference 2024 was held in Beijing, with NetDragon participating for nine consecutive years. At the "Forum on Marching towards the Digital Transformation of Smart Education" on the afternoon of August 18, the "Most Beautiful Teaching Resource Unit - Photosynthesis", jointly developed by NetDragon and the Education Bureau of Baoshan District, Shanghai, was released for the first time. Developed by NetDragon's "Future Experiment" team using 3D educational engine technology and AI automation tools, and incorporating suggestions from subject experts and front-line famous teachers, this product emphasizes interactive teaching and immersive learning, aiming to promote the intelligent transformation of educational resources. Dr. Zhang Zhi, Director of the Education Bureau of Baoshan District, Shanghai, presided over the release ceremony. Chen Changjie, Vice Dean of the Smart Learning Institute of Beijing Normal University and Vice President of NetDragon, presided over the roundtable discussion, where experts discussed the future development direction of the intelligent transformation of educational resources.



Release of the Research Report "International Understanding of Smart Education in the Context of Digital Transformation"



On August 18 (Beijing Time), at the opening ceremony and plenary session of the "Global Smart Education Conference 2024", Professor Ronghuai Huang, Co-Dean of the Smart Learning Institute of Beijing Normal University, and Professor Tao Zhan, Director of the UNESCO Institute for Information Technologies in Education (IITE), on behalf of the Global Smart Education Network (GSENet), released the research report "International Understanding of Smart Education in the Context of Digital Transformation". Director Tao Zhan mentioned that GSENet has been established for two years and has gathered 15 members from around the world, and will continue to be open to all. Professor Ronghuai Huang introduced that the report is the latest research achievement of the "Joint Research Program on National Smart Education Strategies" of GSENet. The research team conducted an extensive survey on the insights of educators, policymakers, and scholars from various regions around the world on smart education, and analyzed the digital education policies of 48 countries and the contribution of smart education to the improvement of educational quality.

The 7th Global Competition on Design for Future Education

Higher Education Track

From July 26 to 28, 2024, the final of the Higher Education Track of the 7th Global Competition on Design for Future Education was held at the Changping Campus of Beijing Normal University. Co-hosted by Beijing Normal University and the UNESCO Institute for Information Technologies in Education (IITE), the competition attracted 26 teams from more than 30 universities around the world, including Peking University, Beijing Normal University, Maldives National University, and Sungkyunkwan University (South Korea).



The competition focused on seven major topics:

- Design of Inclusive Learning Spaces: Creating spaces for special children and ordinary children to learn together to promote educational equity.
- Design of Learning Environments Without Time and Space Restrictions: Creating flexible learning environments to meet diverse needs and stimulate creativity.
- Design of Educational Resources for Symbiosis with the Earth: Helping learners become global citizens and promoting the sustainable development of education.
- Design of Teaching Models with Multi-Stakeholder Participation: Joining hands with multiple parties for collaborative teaching to achieve resource sharing.
- Design of Marginal Cultural Heritage Inheritance Empowered by Digital Technology: Using digital means to protect cultural heritage such as traditional craftsmanship and ethnic minority languages.
- Design of High-Quality Educational Resources for Rural Areas: Designing high-quality educational resources for rural and underdeveloped areas to support local development.
- Design of Cross-Cultural Exchange and Understanding Activities: Cultivating a global perspective and promoting cultural understanding and inclusiveness.

注：排名不分先后 Note: listed in no particular order

入围总决赛项目（高教赛道） Finalists (Higher Education Track)			
序号 No.	项目名称 Project Name	团队名称 Team Name	队员姓名 Member Name
1	和解教室——艺术疗愈空间设计	课堂氛围组	解婉莹、郭诺雅、刘淇蔓、沈雯昕、吴则勋
2	基于混合现实的机电控制柜教育实训考核装备	蛋仔派队	孙晨栋、陈俊好、薛楠、郑毅恒、傅蓉
3	Mixed Reality Game for Grade 8 Geography in China	Phoenix Vision	Samaneh Lahuti、MURAD ALIYEV、Bidur KC、Safura Kerimova、孙博洋
4	多闻中文——基于“元宇宙”和AIGC技术的汉字元素系列游戏	GSE教技人	马冬玲、曾诚则、张欣、林智勇、卫民
5	AI-Pilot Coding Education ——智编领航	智造梦想设计盟	赵赫璇、付玉娜、马国威、韩旭、黄杰
6	声影融学——AIGC手势识别与社会适应创新系统	人工智能人	郑思怡、李如妍、林金豪、王子轩、陈晋怡
7	阿波罗——基于生成式人工智能的虚拟病人心理诊疗系统	The winners	胡星、欧阳徐琰、Ali Elhilali、曹育宁
8	Critter-POV——基于AI对话式机器人的Zoo Walk智能可穿戴设计	爪爪冰棍经销商	夏江南、陈婷婷、刘鑫雨、谭铭涵、苟婷婷
9	粤韵新探：跨学科视野下粤剧与思政元素的融合与创新	乐思粤韵	胡珂馨、吴琳静、叶嘉锐、王莹莹、陈可可
10	智承古今	传世之声	沈沛青、刘星铄、周晶楠、张馨月
11	织彩未来——基于 AIGC 的交互体验扎染工作坊	创飞所有人队	李晨阳、毛秩楠、刘煜婷、梁峻豪、侯星康
12	WisdomX 智伴——面向全体大学生的 AI 校园助手	守护者联盟	王佳宁、汪梓筠、方欣然、许哲、刘禹含
13	concentration 体育玩具设计	跃动精灵	陈婧文、孙奥、黄再衍、李为洪
14	针对听障儿童的体感游戏设计——《我的超能力》	我的超能力!	高子祺、余俊霖、徐冉、王斌兰
15	为解决中学生视障人群教育信息化问题的设备设计——“浮点”阅读器	深藏blue	董晨馨、安薪晔、李心叶、姚聪祎
16	有机化学卡牌	专业团队	王启睿、谢新源、张诗悦、李婷玉
17	我是藻井守护人——故宫藻井活化实践课程与数字化呈现	藻井MASTER	赵紫宏、黄雯雯、方一羽、付红昕
18	My own philosophy study, five minutes a day of self-reflection, Personalized Inner Growth Care and wisdom Assetization App for Young People	SIMJI	Lee Giyoung、Li Xiuhuo、Jin Huiying、Jeong Eunah
19	基于现实世界的记忆宇宙	好记大排档	李旭敏、阮旺、冯柏诗
20	MechMinds: An Interactive Modular Robot for Mechanics Education	Masters of Mechanics	孙钦贵、范润唐、唐志昊、季永文、刘静微
21	教育神经科学视角下医生内镜技术间隔学习方案的设计与实施	学医致用	厉伟、肖晔、李沁泽、孟祥清、王雨
22	“会用单词”——基于教育神经科学的语境式英语生成性学习程序	森林夜星	朱玥瞳、邓凌晖、顾一凡
23	Immersive Learning of Human Anatomy through Extended Reality for Medical Students	Anatomix	Aruni Ankur、Sahil Patel
24	Metaverse Interference: Reimagining Newton's Rings for Virtual Exploration	RingVerse	Toluchuri Shalini Shanker Rao、Utanko Mitra、Rohan Bogawat、Sreejan Shivam

16 experts and scholars served as mentors, and the evaluation of works was conducted from five dimensions: problem awareness, innovative spirit, integration of science and education, application prospects, and presentation and expression. Prior to this, from July 7 to 8, the preliminary and final of the Maldives Division were held at the Maldives Polytechnic. Participating teams combined the local geography and educational status to discuss the innovative application of AIGC technology and selected the gold award and multiple individual awards.

During the final, 25 teams competed through online and offline methods, and 18 teams stood out in the end. At the opening ceremony, guests including Zhou Zuoyu, Vice President of Beijing Normal University, and Tao Zhan, Director of the UNESCO Institute for Information Technologies in Education (IITE), delivered speeches, emphasizing the significance of the competition for educational innovation. At the closing ceremony, guests including Abdullah Firosh, Minister of State for Higher Education of the Maldives, affirmed the innovative spirit of the participants and the influence of the competition. The names of the winning works of the Higher Education Track of the 7th Global Competition on Design for Future Education are as follows:

Gold Award: "Dao" for Teachers - A Training System for Novice Teachers to Improve Their Teaching Practice Abilitie



Silver Awards: Coparent o Co-Dance - Inclusive Dance Learning Space



Silver Award: Mar.cu "Dream Weaving Music" - AIGC-Based Campus Performance Direct Train "Dream Weaving Music" - AIGC-Based Campus Performance Direct Train



Excellent Design Awards:"Starry Sky Without Boundaries" - Design of Somatosensory Games for Social Training of Autistic Children from an Inclusive Perspective Educating Tourists Through Augmented Reality: Enhancing Cultural Immersion Card Design and Innovative Application of Bai Ethnic Culture



Excellent Creativity Awards: Turtle Letters FinSavvy College Students Cultural Exchange Trip Using Board Games for Local Youth



Excellent Practice Awards: CognitiveBridge o First Aid for All - Ubiquitous Learning App for Cardiopulmonary Resuscitation Skills Workplace Sandbox Based on AI Agent



Excellent Technology Awards: iTalking - Speech Intonation Optimization Training System for Hearing-Impaired Children o Edu Bridge o Chemhero-Metaverse



The 7th Global Competition on Design for Future Education



On July 28, 2024, the final and award ceremony of the Enterprise Track of the "7th Global Competition on Design for Future Education", co-hosted by Beijing Normal University and the UNESCO Institute for Information Technologies in Education (IITE), was successfully concluded at the Changping Campus of Beijing Normal University. The competition set up the Enterprise Track for the first time, aiming to promote the integration of technological innovation and education and accelerate the digital transformation of education. Since its launch in March, it has attracted many enterprises to participate, with 23 works shortlisted for the final. Finally, 2 first prizes, 4 second prizes, 6 third prizes, and 11 excellence awards were selected. During the final, participants demonstrated innovative solutions using emerging technologies such as AIGC to solve educational pain points, and the judges made professional comments in accordance with the evaluation criteria. At the award ceremony, Wu Yujun, Vice Chairman of the Competition Organizing Committee, Shi Jianguo, Chief Expert, and Chen Guangju, Chairman of the Steering Committee, presented certificates to the winning teams respectively.

注：排名不分先后
Note: Listed in no particular order

第七届全球未来教育设计大赛（企业赛道）-获奖作品 Winning Case-studies (Enterprise Track)				
奖项 Prize	序号 No.	作品名称 Case-study Names	参赛者 Participants	工作单位 Workplace
一等奖 First Prize	1	芯启未来——农村芯片教育普及计划	梅良中, 李先波, 陈俊健, 李建军, 朱磊岳	浙江三和科技仪器有限公司
	2	鸿德教研·智慧教研能力提升解决方案	刘宇珂, 姜琦, 王佳, 李滔	浙江海亮科技有限公司
二等奖 Second Prize	1	基于极域CLASSHUB的元宇宙智慧教室解决方案	曹中进, 王海燕, 周浩, 刘慧娟	南京极域信息科技有限公司
	2	环境心理学视域下创设校园物理融合环境体系	关鹤楠, 何志浩, 张春	深圳市建筑设计研究总院有限公司
	3	“三个课堂双向互动”创新模式与应用	李婧, 张芳, 王俊, 魏薇, 鲁婷婷	鸿合科技股份有限公司
	4	AI智能编程种植实验箱	WEXUN CAO, 李昀倩	山东建莘教学设备有限公司
三等奖 Third Prize	1	基于OpenHarmony (开源鸿蒙) 系统的中小学智慧农业教学系统解决方案	梁溪, 刘娜, 杨北辰, 陈奕博, 袁天禄	北京布瑞未来科技发展有限公司
	2	AI赋能双师法治教育方案	曹瀚宇, 李永平, 李永胜, 姚新煜, 陈小露	鸿合科技股份有限公司
	3	一款集数字化、智能化、轻量化、在线化为一体的透明智能视听地球仪产品	邓毅丰, 李红兵, 王正杰, 王东梅, 白世豪	北京天域北斗文化科技集团有限公司
	4	《微世界》生态系统价值驱动的游戏解构与设计	武海波, 付春叶	溯水边美育三河文化传播有限公司
	5	英文写作伙伴 (个性化英文作文辅导助手)	邱娜, 孙磊, 张志辉, 张刘基	江北区松果文化信息咨询中心
	6	城郊及农村学校智能化大棚农场	李鹏, 赵进, 杨延悦, 石阳, 王兆磊	山东远大朗威教育科技股份有限公司
优秀奖 Excellent Prize	1	优课U+数字化教学平台	王子男, 谢博	深圳市深大优课教育有限公司
	2	《超级AI与未来教育》	李骏翼, 张义堂, 于进勇, 杨丹, 徐远重	中关村互联网教育创新中心元宇宙教育实验室
	3	机理模型驱动的教育元宇宙之医学影像数字孪生系统的研发与应用	汪红志, 夏天, 徐罗元, 顾群雁, 胡广进	上海培云教育科技有限公司
	4	AI多数字人元宇宙教育解决方案	邵婉婷	北京磨科科技有限公司
	5	基于国产自主3D元宇宙创作环境的劳动教育解决方案	曹颖, 邹晓旭, 周睿, 黄冬, 王沛川	大富软件科技(安徽)有限公司
	6	VR元宇宙课程赋能各学科情境化教学	杨露	中国联通
	7	寓教于乐——小碧育苗实验装置	陈诺华, 伍智强, 徐强震, 赵泽勋	南昌市融创创客科技有限公司
	8	《等花开》儿童心理绘本与立体阅读活动的设计	张能	福州软件职业技术学院
	9	个性化深度学习的规律与能力跃迁路径图式表	侯俊武	西宁市城北区纵横技术交流服务部
	10	实现每个孩子的花园——可变化温度技术在自然教育课程的应用	郭勇与, 闫路, 王亚辉	深圳未来风景科技有限公司
	11	舞台板利教学之本土化教学设计	龚萍	山东智库教育发展有限公司

Primary and Secondary School Track

On June 30, 2024, the defense of the Primary and Secondary School Track of the 7th Global Competition on Design for Future Education was successfully held. The event brought together 89 outstanding cases from China and overseas, focusing on artificial intelligence and the digital transformation of education. Experts selected 20 cases to enter the final review from multiple dimensions. The final review was held offline at the Changping Campus of Beijing Normal University on August 20, coinciding with the Global Smart Education Conference.

On August 20, 2024, the final and award ceremony of the Primary and Secondary School Track of the 7th Global Competition on Design for Future Education was successfully held at Beijing Normal University, as an important activity of the "Global Smart Education Conference 2024". Co-hosted by Beijing Normal University and the UNESCO

Institute for Information Technologies in Education (IITE), and with the special cooperation of the Beijing Design Association and the Office of the Beijing International Design Week Organizing Committee, the competition has attracted thousands of primary and secondary school teachers at home and abroad since its launch on March 1, and received more than 420 excellent teaching case works. Participating teachers focused on core educational issues, actively explored innovative solutions for technology-empowered education, and finally 89 cases won awards, including 15 first prizes, 32 second prizes, and 42 third prizes. During the final, 20 teachers demonstrated innovative educational solutions integrating emerging technologies and cutting-edge theories, which were highly praised by the judges. The jury team included experts such as Shi Jianguo, Wu Fati, Zhou Jiaxian, Ma Tao, and Wang Yunwu, who made professional comments on the cases from dimensions such as problem awareness, innovative spirit, and integration of science and education. Mao Chengjie from Beijing Jingshan School hosted the final event, and Professor Chen Guangju highly praised the performance of the participating teachers in the summary session. In addition, the competition also included the "Future Education in My Mind" poster collection and the "Contextual Teaching Short Video" collection activities. The list of winners was announced during the award ceremony, and Song Weizu and Shi Jianguo presented awards to the winning representatives respectively. A total of 89 cases won awards in the "Excellent Teaching Case Design" of the Primary and Secondary School Track of this competition, covering aspects such as curriculum development, tool research and development, model innovation, and teaching practice.



第七届全国未来教育设计大赛 The 7th Global Competition on Design for Future Education		
中小学赛道“优秀教学案例设计”获奖案例 (一等奖15个) K12 Track "Case-study Collection" - Award-winning Case-studies (15 First Prizes)		
序号 No.	案例名称 Case-study	学校 School
排名不分先后 listed in no particular number		
1	基于创造性教学思维的复习课教学设计	泰山学院附微中学
2	基于教育神经科学的“智慧+体育大课间”设计	淄博市博山中学
3	教育神经科学视角下的农村初中留守儿童语文写作设计与实践探究——来自手机端“神经网络”的启示	甘肃省甘谷县金山镇崇本小学, 西安外国语大学英语师范学院教育分院, 天津师范大学文理学院
4	基于教育神经科学的高中物理思维发展型课堂教学设计	南宁市第二中学
5	“AI古建” 教具设计与应用——以陶然亭为例	北京市丰台区职业教育中心学校
6	基于教育神经科学的高中英语教学策略探究	山东省淄博市临淄中学
7	ChatGPT校园心理援助助手——基于App Inventor和开源硬件的生成式人工智能教学实践探索	东莞市塘厦镇第二初级中学
8	AI赋能教学：“跨学科教学设计专家”智能体的开发和应用	山东省青岛第五十七中学, 潍坊纪元学校, 湖南农业大学
第七届全国未来教育设计大赛 The 7th Global Competition on Design for Future Education		
中小学赛道“优秀教学案例设计”获奖案例 (二等奖32个) K12 Track "Case-study Collection" - Award-winning Case-studies (32 Second Prizes)		
序号 No.	案例名称 Case-study	学校 School
排名不分先后 listed in no particular number		
9	Ethno-STEAM and Klenang Sasak: A Design-Based Solution for Rural Schools	BINDU SCHOOL Bekasi, SDN 1 Puncak Jatiroga, SDIT Nurul Fikri Salang
10	西藏农牧民子女“再见！传染病小怪兽”健康教育资源开发——基于数字技术应用的实践探索	西藏自治区昌都市卡若区第二初级中学
11	基于生成式AI技术建构的45安全感知教学模式访谈在小学生在教师辅导中的应用	湖北省宜昌市西陵区恒通路小学
12	生长教育评价可视化模型探索与实践	深圳市宝安区西湾小学(集团) 西湾小学, 深圳市宝安区西湾小学(集团) 海城小学
13	融合生成式人工智能的小学语文口语交际主题项目式教学实践	湖北省宜昌市西陵区恒通路小学
14	“四感”能循环：基于PBS的幼儿园融合教育模式实践与研究	浙江省温州市龙湾区滨海第一幼儿园
15	童心筑梦山海经	北京市朝阳区芳草园国际学校
第七届全国未来教育设计大赛 The 7th Global Competition on Design for Future Education		
中小学赛道“优秀教学案例设计”获奖案例 (三等奖42个) K12 Track "Case-study Collection" - Award-winning Case-studies (42 Third Prizes)		
序号 No.	案例名称 Case-study	学校 School
排名不分先后 listed in no particular number		
1	未来城市规划师——基于智能体的个性化教学探索	东莞松山湖未来学校
2	基于跨学科的高中信息技术课程中生成式人工智能模型教学实践	昆明市五华区昆一中实验中学
3	Teacher Chem: 一个AI驱动的化学导师	北京市海淀区稻香湖学校
4	生成式人工智能与教学变革AI赋能行动的探索与实践	重庆两江新区行知小学校
5	我与AI对“画”——可可爱爱智慧平台赋能小学非遗漆艺课堂	深圳市教育科学研究院实验小学(光明)
6	电子密信：AI辅助下的摩斯密码探秘	深圳市龙华区万科双语学校
7	生成式人工智能赋能智慧体育装备融合教学模式的探究	天津市第七中学, 天津市卓越学校
8	基于AIGC的初中校本课程教学设计与实施研究——以“蛇口当下与未来”信息科技校本课程为例	深圳市蛇口育才教育集团育才中学
9	利用生成式人工智能交叉读写能力教学的探究	宜昌市西陵区三江小学
10	STEM赋能下的乡村农业教育——土壤课程	诸暨棠村外语中学, 棠村教育科技集团有限公司
11	从二进制到人工智能——小学计算机科学体验课程设计与实施	山西省晋中市平遥县中部乡虎溪中心小学

第七届全球未来教育设计大赛
The 7th Global Competition on Design for Future Education

中小学赛道“优秀教学案例设计”获奖案例 (二等奖32个)
K12 Track "Case-study Collection" - Award-winning Case-studies (32 Second Prizes)

序号 No.	案例名称 Case-study	学校 School
12	基于教育神经科学的循证式创客课程设计与实施——以《空气吉他》为例	泰山学院附属中学
13	信息技术辅助农村初中开展项目式教学的实践研究——制作育苗手册	北京市怀柔区教科研中心, 北京市怀柔区北郊中学
14	教学融合数字, 打造智慧课堂——以初中数学项目式学习“设计舞台灯光”为例	无锡市陈锋教学名师工作室, 无锡市西漳中学
15	多功能教学器材车	安徽省庐江实验小学
16	寻找汉字小勇士——基于游戏化设计和项目制学习的小学语文习作课	于田县兰干乡中学
17	Unity in Diversity: Innovative Practices for Inclusive Education	Mezgyassói Mészáros Lőrinc Közveti Általános Iskola
18	基于教育神经科学证据的小学英语绘本阅读教学设计与实践——以绘本与教材融合课 Zeb at work为例	潍坊市奎文区德润学校
19	教育神经科学视域下的生物遗传教学策略探究——以《基因的显性和隐性》为例	泰山学院附属中学
20	脑科学嘉年华游园会: 基于全脑思维的主题活动设计与实施	成都经济技术开发区实验小学, 成都市教育科学研究院, 成都市龙泉驿区教育科学研究院
21	"O2O心育": 中职生心理健康教育新常态	宁波市镇海区职业教育中心学校
22	"为什么新疆的瓜果甜"教育装备创新应用案例"	淄博市周村区南郊中学

第七届全球未来教育设计大赛
The 7th Global Competition on Design for Future Education

中小学赛道“优秀教学案例设计”获奖案例 (二等奖32个)
K12 Track "Case-study Collection" - Award-winning Case-studies (32 Second Prizes)

序号 No.	案例名称 Case-study	学校 School
23	普特二元 高低融合——孤独症谱系障碍学生社会情绪课程的构建与实施	广州市康桥学校 (广州儿童孤独症康复研究中心)
24	场馆课程赋能“双减”——教学空间新样态	潮州市潮师附小教育集团建安小学
25	基于PBL的气象观察课程设计与实践——以“小小气象观察员”为例	江西省上饶市余干县塘溪中心小学, 江西省上饶市余干县农业技术学校, 江西省上饶市玉山县第二中学, 江西省上饶市鄱阳县乐丰镇方东小学
26	教育神经科学在小学阅读兴趣培养中的应用研究	山东省淄博市临淄区湖天实验学校, 山东省淄博市临淄区桓山小学, 淄博市临淄区竞技体育运动学校, 山东省淄博市临淄区齐都花园小学
27	别样的英语写作课	海南省海口市第二中学
28	空间智航——基于教育神经科学的中衔接课程	沈阳市高品东越学校
29	双刃剑效应: AIGC在跨学科项目式学习中的应用与挑战——以《诗歌和鸟雀筑巢》课程为例	苏州工业园区娄葑学校
30	本土资源融合下的乡村交通职业人才培养体系创新	温州交通技术学校
31	"数字化+大单元"让跨学科实践活动的落地更鲜活——我为“天宫二号”造空气	佛山市顺德区陈村镇初级中学
32	AI创作者: 新英才之旅	北京市新英才学校

第七届全球未来教育设计大赛
The 7th Global Competition on Design for Future Education

中小学赛道“优秀教学案例设计”获奖案例 (三等奖42个)
K12 Track "Case-study Collection" - Award-winning Case-studies (42 Third Prizes)

序号 No.	案例名称 Case-study	学校 School
1	AIGC赋能初中地理跨学科主题学习模式探究——以《星辰陨落: 设计中国航天特色太空展馆》为例	深圳小学附属中学
2	基于生成式人工智能及前沿数字化教学工具开展高中数学函数奇偶性(第2课时)的教学活动	人大附中深圳学校
3	项目式学习助推未来学校教育特色课程的变革——以“我在金小玩泥巴”陶艺课程为例	宜昌金东方小学
4	应用史料提升科学课程学习有效性——以天津市滨海新区欣嘉园第一小学为例	天津市滨海新区欣嘉园第一小学
5	跨学科项目式学习在小学数学教学中的设计与实施——以“滑滑梯大挑战”为例	宜昌金东方小学
6	基于教育神经科学的VR沉浸式高中历史教学设计——以《辛亥革命》(第二课时)为例	上海开放大学附属中学华文分校
7	基于教育神经科学的挫折心理健康课例设计——以《挫折是化了糖的礼物》为例	潍坊市奎文区德润学校
8	基于跨界整合的课堂教学数字化转型的实践研究——以《思维世界》跨学科课程为例	苏州工业园区娄葑学校
9	用人工智能设计剧本杀	北京海淀黄城小学
10	“循证教育”: 为支点, 撬动“五育融合”新样态	湖北省武汉市汉阳教育集团联群小学分校
11	“他们的世界”: 教育神经科学视域下学校学习空间改进设计与演化	兰溪市聚仁小学

第七届全球未来教育设计大赛
The 7th Global Competition on Design for Future Education

中小学赛道“优秀教学案例设计”获奖案例 (三等奖42个)
K12 Track "Case-study Collection" - Award-winning Case-studies (42 Third Prizes)

序号 No.	案例名称 Case-study	学校 School
12	"鸢鹰展"诗雅社——基于“文心一语”AIGC 新型教学模式探究	深圳市光明区凤凰城实验学校
13	智启未来: 融合新技术, 变革教与学——网络面板融入课堂教学的教学实践	上海市静安区风华初级中学, 江苏省苏州工业园区教师发展中心, 苏州工业园区唯亭学校
14	以AIGC助力教师精准进行成绩数据分析	中央民族大学附属中学
15	元宇宙时光机——海南历史文化沉浸式探秘之旅	北京师范大学海口附属学校
16	基于思维可视化的项目主题学习设计与实践——以智驾未来课程为例	成都经济技术开发区实验小学
17	教室智多星	成都天府国际生物城万汇小学
18	高效备课, 精准教研: 大型语言模型(LLM)与生成式AI赋能教研变革	四川省广安中学
19	自然托举: 回归陶器云——古代劳动工具陶器的制作与体验	五峰土家族自治县中小学教师培训中心, 五峰县乐平中学, 五峰实验初级中学, 五峰仁和坪中学, 五峰采花中学
20	创制制项目设计——《月宫畅游》	宜昌市猗亭区实验初级中学
21	人工智能与智慧学校——机器学习	北京市第二中学经开区学校
22	用手机App做化学实验	辽宁省大连市西岗中学

第七届全球未来教育设计大赛
The 7th Global Competition on Design for Future Education

中小学赛道“优秀教学案例设计”获奖案例 (三等奖42个)
K12 Track "Case-study Collection" - Award-winning Case-studies (42 Third Prizes)

序号 No.	案例名称 Case-study	学校 School
23	"SECA-TPP"模式在小学高段孤独症儿童融合教育中的实践	广州市康桥学校 (广州儿童孤独症康复研究中心)
24	数字化教育视域下特殊学生职业教育的实践策略与创新探索	广州市越秀区启智学校
25	AIGC人机协同国家课程项目化科学实践模式——以科学《计量时间博物馆》设计与实施为例	深圳市南方科技大学教育集团(南山)实验二小
26	传统文化视域下"AR"在教育教学中的应用与探究	宜昌市第三中学
27	基于“粤教翔云”平台的环保环保创客STEAM课程	佛山市顺德区勒流梁季彝纪念学校
28	元宇宙赋能中英双语教学与中华优秀传统文化融合探究	宜昌英杰学校
29	"优教"市集: 未来乡村文化地建设实践与研究	浙江省温州市龙湾区滨海第一幼儿园
30	基于农村本土资源的跨学科课程设计与实施——《一个花瓣的诞生》	山西大学附属中学晋中分校, 榆次区第十中学
31	互联网+助力农村家长素养提升	湖北省五峰土家族族自治县采花小学
32	清流守护者——小河流与水资源保护的未来自行动	宜昌市夷陵区小溪塔街道通办处第二完全小学
33	跨学科视域下《历史上的疫病与医学成就》——教育神经科学视角下培养学主创造性的研究	山东省胶州市第一中学, 招远市第二中学, 招远市罗峰中学

第七届全球未来教育设计大赛
The 7th Global Competition on Design for Future Education

中小学赛道“优秀教学案例设计”获奖案例 (三等奖42个)
K12 Track "Case-study Collection" - Award-winning Case-studies (42 Third Prizes)

序号 No.	案例名称 Case-study	学校 School
34	和合创美: 跨学科学习链式设计与实践	深圳元平特殊教育学校
35	原型样例在教育神经科学框架下促进具身认知学习的实践研究	山东省淄博市临淄区湖天实验学校, 山东省淄博市临淄区耀下街道办事处, 山东省淄博市临淄区齐都花园小学
36	转型·革新·深化: 农村小学项目化实践的多维探索	潮州市枫溪实验小学教育集团
37	农村小学“讲读”课程的实施建构研究	湖北省宜昌市夷陵区龙泉镇镇中心完全小学(钟家校区), 湖北省宜昌市夷陵区龙泉镇中心完全小学(龙泉校区)
38	基于本土资源的劳动课程开发与利用——百里洲砂梨种植作为中学劳动教育课程开发的探索与实践	枝江市百里洲镇百里洲初级中学
39	农村小学教学和美术教学的跨学科融合, 以苗族剪纸为例	贵州省余庆县白泥中学, 贵州省余庆县沙坝小学, 贵州省施秉县民族中学, 贵州省遵义市德江县苗族自治县苗族自治县
40	"绳索"主题校本课程资源开发与实施	林口县第一实验小学, 林口县第三工程希望小学
41	教育神经科学视域下的高中信息技术教学设计研究——以《搭建和优化小型物联网系统》为例	上海市位育中学, 山东省烟台第三实验小学, 临沂第一实验小学
42	基于教育神经科学证据的初中正念减压课——以八年级学生考前减压为例	贵阳普瑞学校

Vocational Education Track

The 7th Global Competition on Design for Future Education added a new Vocational Education Track, co-hosted by Beijing Normal University and the UNESCO Institute for Information Technologies in Education (IITE), with special cooperation from the Beijing Design Association and the Office of the Beijing International Design Week Organizing Committee. Open to current students of vocational colleges at home and abroad, the track requires participants to form teams of 3-5 people and design physical models, hardware sketches, software prototypes, or solutions around themes such as generative artificial intelligence, metaverse, rural education, inclusive education, and educational neuroscience. To help participants gain a deep understanding of the competition rules and better design their topics, the competition organizing committee held a



presentation meeting for the Vocational Education Track on September 23, 2024, explaining the key points of the track, interpreting the competition themes, and sharing excellent cases. With the themes of "Generative Artificial Intelligence and Education", "Metaverse and Education", "Rural Education", "Inclusive Education", and "Educational Neuroscience", the 7th Global Competition on Design for Future Education

encourages participants to use digital technology as a means to explore innovative opportunities in fields such as education, technology, and design.

Interpretation of the Competition Topics for the Vocational Education Track:

- Direction 1: Intangible Cultural Heritage (ICH) and Cultural Inheritance
 - Topics: Design of Virtual Venues for ICH Culture, Design of Interactive Experiences for ICH Techniques, Design of ICH Cultural and Creative Products, Design of ICH Cultural Communication
- Direction 2: Characteristic Educational Resources
 - Interdisciplinary Educational Resource Design, Practical Educational Resource Design, Educational Resource Design for Special Groups, Social Educational Resource Design
- Direction 3: New Educational Games
 - Educational Game Design with Free Themes, Creative Visual Educational Game Design, Digital Art Educational Game Design, Comprehensive Skill Learning Game Design
- Direction 4: Intelligent Learning Assistants
 - Intelligent Teaching Aid Design, Intelligent Learning Environment Design, Process Improvement and Innovation Design, Applied Method Design

Cooperation and Communication

Dean Ronghuai Huang Visited Thailand and Attended the ICNB 2024 International Conference

From June 26 to 27, 2024, Professor Ronghuai Huang, Co-Dean of the Smart Learning Institute of Beijing Normal University, went to Bangkok, Thailand, to attend the 2024 The International Conference on Nation-Building (ICNB 2024) hosted by the Nation-Building



Institute International (NBII). In the international roundtable discussion session, Professor Ronghuai Huang discussed topics such as "Shaping a Fair Future: Understanding Future Trends to Achieve Equitable Nation-Building" with a number of internationally renowned experts, and shared a report titled "Promoting the Key Competencies of Teenagers for Building Shared Futures in the Intelligent Era".

Asha S. Kanwar, Chair Professor of the Institute, Was Invited to Attend the "Forum on Artificial Intelligence and Education" of the World Artificial Intelligence Conference 2024 and Delivered a Keynote Speech

On July 4, the World Artificial Intelligence Conference 2024 opened in Shanghai. The "Forum on Artificial Intelligence and Education", as an important part of the conference, was held at the Shanghai World Expo Exhibition and Convention Center. Co-hosted by Tongji University, the Shanghai Municipal Commission of Economy and Informatization, the Shanghai Municipal Education Commission, and China Mobile Communications Group Co., Ltd., the forum aimed to discuss the opportunities and challenges of education in the context of artificial intelligence, share practical experiences of intelligent technology in education, and promote the cultivation of top innovative talents and the improvement of educational equity and quality in the intelligent era. Wu Yan, Vice Minister of Education, and Xie Dong, Vice Mayor of Shanghai, attended and delivered speeches. Professor Asha S. Kanwar, Chair of the Governing Board of the UNESCO Institute for Information Technologies in Education (IITE), delivered a keynote speech, analyzing the impact of artificial intelligence on education and employment, emphasizing the five major capabilities required in the intelligent era, and calling on



all parties to increase investment in smart education and use open-source large language models to improve the accessibility and innovation of education. The forum was hosted by Zhou Yaming, Director of the Shanghai Municipal Education Commission, and was attended by a number of academicians, experts, scholars, and enterprise representatives who delivered speeches.

Books & Articles

Analysis of Student Community Interaction Behavior for Digital Society

E-education Research

Ronghuai Huang, Mengyu Liu, Ying Hu, Jiong Guo

Abstract: Shared destiny is a prominent symbol of the world today, and interpersonal communication is of great practical significance for social production and development. The development of information technology has expanded the growth space of students, making digital communication the main form of interpersonal interaction for contemporary students, and online communities have become the main space for students' growth. However, this also leads to problems such as communication alienation and loss of subjectivity faced by students due to digital social interaction. Therefore, from the perspective of communicative rationality, this study constructs a CSS framework for the digital society, covering three dimensions: Digital Culture, Individual Space, and Social Order. This framework provides a credible mechanism for the survival, development, and social interaction of members of the digital society in the new era. Based on this framework, the study analyzes in detail the competencies that individuals should possess in the face of the digital society, specifically including tool awareness, digital literacy, and subjective efficacy in digital culture; self-awareness, identity recognition, and behavioral constraints in individual space; and group awareness, emotional management, and social participation in social order.

The Future Educational Evolution Driven by Brain and Cognitive Science and Artificial Intelligence

Frontiers Gui Xue, Dejian Liu

Abstract: The rapid development of brain cognitive science and artificial intelligence is promoting the accelerated evolution of human society towards the intelligent era, putting forward new requirements for human survival and development capabilities, and also promoting fundamental changes in educational goals and methods. The

design of the future education system needs to break through the limitations of knowledge transmission, with the goal of promoting the continuous reproduction and evolution of human beings, the cultivation of learning ability as the core, personalized on-demand learning as the orientation, the laws of human brain learning as the guidance, and technological innovation as the support, to help individuals develop an organic knowledge system, strong cognitive abilities, and lasting learning motivation. To achieve the goal of future education, all sectors of society need to take collaborative actions in terms of educational policies, scientific research, teacher education, examination and evaluation, curriculum settings, and technological innovation to promote the transformation of future education from theory to practice.

Towards the Basic Theories of Teaching Transformation in the Digital Age: Digital Pedagogy

E-education Research

Ronghuai Huang, Ying Hu, Mengyu Liu, Jing Pan, ADARKWAH Michael

Abstract: With the development of emerging technologies such as artificial intelligence, the application of digital technology in education is deepening. Whether the application of technology can effectively improve learning effects and teaching quality is still a hot topic of global discussion, especially in terms of effective methods, applicable objects, and effective scenarios of digital learning, the evidence is still insufficient. Therefore, there is an urgent need to study the laws of digital learning and teaching under the digital transformation of education. The key to the transformation of digital learning lies in how technology promotes learning, and its mechanism can be summarized into three levels: technology application, skill expansion, and human-machine collaboration. The key to the digital transformation of teaching is that technology serves effective teaching. To achieve this goal, it is necessary to follow the basic laws of teaching and learning in the digital era: (1) The essence of teaching is a bilateral activity of teaching and learning; (2) The role of technology is to effectively empower teaching and learning; (3) The root of digital teaching lies in digital pedagogy. Based on the discussion of the basic laws of teaching and learning in the digital era, the study further clarifies that the basic path of global teaching transformation is to develop digital pedagogy, which specifically includes four dimensions: (1) Technology-empowered deep learning; (2) Green and robust digital learning environment; (3) Evidence-based teaching practice; (4) Human-machine trusted collaborative education.

The Technology Ethical Orientation and Risk Governance for Smart Education

Modern Educational Technology

Ronghuai Huang, Guoliang Zhang, Mengyu Liu

Abstract: Currently, the integration of intelligent technology with the entire process of education is promoting profound changes in educational methods, while deriving technological ethical risks such as algorithm discrimination, technology abuse, privacy leakage, and dislocation of educational subjects. How to avoid risks to maximize the benefits of intelligent technology has become an important issue in the development of smart education. Therefore, this article first analyzes technical ethics-related reports and documents, and depicts the technical ethics orientation of smart education in four dimensions: intelligent technology, educational subjects, educational data, and educational supervision; then, the article analyzes the differentiated technical ethics risk characteristics in six typical scenarios of smart education, including "teaching, learning, management, evaluation, practice, and research", and attributes their causes to three levels: lack of trust in technical tools, irregular educational practice, and insufficient literacy of teachers and students; finally, the article puts forward risk prevention and governance suggestions from the perspectives of technology upgrading, risk management, accountability supervision, data flow, and literacy improvement, to help the healthy and sustainable development of smart education.

Artificial Intelligence Large Model into Education: Conceptual Change, Form Reshaping, and Key Initiatives

Frontiers Ronghuai Huang

Abstract: The iterative evolution of large artificial intelligence models is triggering the self-awareness of the systematic transformation of education, and the education system is in a critical stage of shifting from passive acceptance of external changes to active adaptation and promotion of internal transformation. At the cognitive level, the continuous integration of large artificial intelligence models is accelerating the transformation of educational and teaching concepts, including the new knowledge concept of co-creation and sharing, the new learning concept of intelligent connection .

and construction, the new curriculum concept of integration and openness, and the new teaching concept of human-machine collaboration. At the practical level, the in-depth application of large artificial intelligence models has given birth to a new form of human-machine collaborative education, forming a multi-dimensional cross-domain human-machine "collaborative teaching", a two-way empowered human-machine "collaborative learning", and a safe and credible human-machine "collaborative decision-making". To respond to the wave of large artificial intelligence models, it is necessary to continuously improve the competencies of teachers and students in the intelligent era, optimize the school access mechanism for intelligent products, carry out human-machine collaborative educational practices in an orderly manner, construct application standards for generative artificial intelligence in education, and ensure the technical security and ethical norms of large models, so as to build a new ecosystem of smart education

Special Issue Collection on "Computational Thinking Moving towards 2.0" | Exhibition of Excellent Achievements of the 8th APSCE International Conference on Computational Thinking and STEM Education

In May 2024, the 8th APSCE International Conference on Computational Thinking and STEM Education 2024 (CTE-STEM 2024) was held at Beijing Normal University. Hosted by the Asia-Pacific Society for Computers in Education (APSCE), the International Conference on Computational Thinking and STEM Education has focused on computational thinking and STEM education and has been successfully held for 7 sessions since 2017, exerting a wide influence at home and abroad. With the theme of "Computational Thinking Education and Computing-related STEM Education", this conference witnessed a large number of innovative research achievements in the fields of computational thinking and STEM education, including the basic scope, training paths, key propositions, innovative development, computational thinking cultivation, STEM education, and computer technology. The conference proposed that currently, more and more people have begun to explore the integration of computational thinking education and STEM education, moving towards the 2.0 stage of computational thinking.

As data becomes increasingly important, AI has become a new starting point for computational thinking education. At this critical juncture, the magazine "China Information Technology Education" has set up a special issue to present the excellent achievements of the 8th APSCE International Conference on Computational Thinking and STEM Education 2024 (CTE-STEM 2024), aiming to comprehensively demonstrate the understanding, research, and practices of teachers in all school stages on computational thinking, and enable readers to truly learn and apply them.



Scan the QR code to read the conference papers:



Important Events

Yuanzhuo Xuetang (Yuanzhuo Academy)

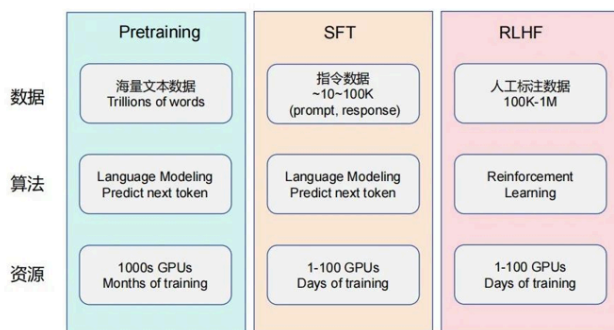
Transformation of Digital Learning Spaces Supported by Large Models

On July 13, 2024, Yuanzhuo Xuetang (Yuanzhuo Academy) jointly held a special sharing session with the Alibaba Cloud Wuying Cloud Education Team, inviting Chen Shuangle, an architect from Alibaba Cloud, to share the transformation of digital learning spaces supported by large models. Chen Shuangle elaborated on the transformation of classrooms in the digital era, emphasized the importance of cloud computing and artificial intelligence technology for the intelligent transformation of education, introduced the advantages of Wuying Cloud Computer in low-carbon environmental protection and convenience, and the application potential of cloud classroom solutions in the education field. He also discussed the application prospects of AI large models in education.

AIGC Empowering Human-Machine Collaborative Teaching: Application Cases in Different Disciplines

On July 20, 2024, the Yuanzhuo Program invited Da Ting, Head of the Large Model Evaluation Project, Xu Shuyao, Senior Algorithm Engineer of Alibaba Cloud, Kong Tiantian, Biology Teacher of Qingdao No. 3 Experimental Junior High School,

How to train an LLM



He Jie, Senior Chinese Teacher of the Second Affiliated Middle School of Beijing Normal University, and Xie Xin, Senior Geography Teacher of Dongguan Songshan Lake Future School, to jointly discuss the application of large language models and intelligent agents in teaching. From the perspectives of development, application, and human-machine collaboration, the experts shared research results and practical experiences in large model evaluation, intelligent agent workflows, interdisciplinary teaching design, human-machine collaborative Chinese teaching, and personalized high school geography teaching, providing multi-dimensional insights and suggestions for the application of large models in the education field.

Advanced Training Camp on "AIGC Empowering Human-Machine Collaborative Teaching"

From August 3 to 4 and September 21, 2024, the first and second sessions of the "Advanced Training Camp on 'AIGC Empowering Human-Machine Collaborative Teaching'", hosted by the National Engineering Research Center of Cyberlearning and Intelligent Technology (CIT) of Beijing Normal University, were successfully held respectively. Both training camps focused on content such as human-machine collaborative innovative simulation classes, Agent teaching practical training, human-machine collaborative platforms and large model experience, and case sharing by front-line teachers on large model-empowered teaching.

The expert team included Professor Yanyan Li, Associate Professor Jinbao Zhang, and Assistant Researcher Huanhuan Wang from Beijing Normal University, Senior Engineer Lixin Zhu from CIT, and Da Ting, Head of the Large Model Evaluation Project, as well as Engineer Hongyu Chen from the Smart Learning Institute of Beijing Normal University. The teaching assistant team consisted of students including Meng Yuan from the University of Wisconsin-Madison, Li Jiang from Capital Normal University, Shuaijie Wang from Central China Normal University, and Tiantian Liu from Beijing Normal University. More than 90 primary and secondary school teachers, university teachers, and university students from all over the country, including Beijing, Shanghai, Guangzhou, and Hong Kong, participated in the training. Through a combination of theory and practice and online-offline integration, the training camp provided a platform for teachers to discuss the role transformation of human-machine collaboration in the AIGC era and jointly completed the design of innovative classes.



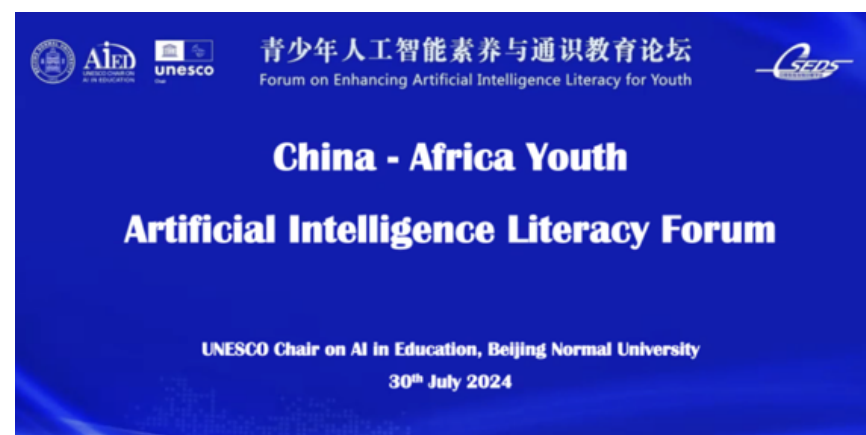
Forum on Adolescent Artificial Intelligence Literacy and General Education Held in Beijing



From July 29 to 30, 2024, the "Forum on Adolescent Artificial Intelligence Literacy and General Education" was held at Beijing Normal University, co-hosted by the UNESCO Chair on Artificial Intelligence in Education and the Chinese Society of Educational Development Strategy. Aiming to improve the artificial intelligence literacy of

adolescents and promote educational innovation and development, the forum attracted nearly 200 experts, scholars, and educators. Nearly 40 experts conducted in-depth discussions on educational transformation and talent cultivation in the intelligent era. The forum was co-hosted by Professor Yanyan Li and Dr. Huanhuan Wang

"China-Africa Adolescent Artificial Intelligence Literacy Dialogue" Successfully Held



On July 30, 2024, the UNESCO Chair on Artificial Intelligence in Education hosted an online forum titled "China-Africa Adolescent Artificial Intelligence Literacy Dialogue", inviting experts, scholars, and educators from many African countries to participate. The forum focused on the latest achievements, risks, and challenges of artificial intelligence technology, and discussed how to cultivate the artificial intelligence literacy and capabilities of African adolescents to support the development of African adolescents, their families, communities, and the entire African region.

Chinese Team Won Outstanding Achievements in the First International Olympiad in Artificial Intelligence (IOAI)

In mid-August 2024, the first International Olympiad in Artificial Intelligence (IOAI) was successfully concluded in Burgas, Bulgaria. Nearly 200 outstanding students from six continents around the world formed more than 40 elite teams to participate in this event. Sponsored by Google and supported by the President of Bulgaria, IOAI set a record for the largest number of registered teams in a global scientific Olympiad event since its first launch.

The competition was divided into the Scientific Round and the Practical Round. In the Scientific Round, student teams needed to apply cutting-edge artificial intelligence technology to solve three problems in the fields of machine learning, natural language processing, and computer vision within a very short period of time; the Practical Round focused more on the application of artificial tools and creative design. In cooperation with the famous Bulgarian musician Maria Ilieva, the students used artificial intelligence tools to create visual content for her hit single "Love". The Chinese team won silver medals in both rounds of the competition.

