

# Jing Shi

## Wisdom & Learning

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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 '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



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# 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

Co-Dean of Smart Learning Institute of Beijing Normal University, Chairman of the Board, Executive Director of NETDRAGON, The Special Allowance Expert in State Council, 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

- Lecture Note in Educational Technology  
Series Editors: Huang, R., Kinshuk, Jemni, M., Chen, N.-S., & Spector, J.M.
- Smart Computing and Intelligence  
Series Editors: Huang, R., Kinshuk, & Dede, C.
- New Frontiers of Educational Research  
Series Editors: Zhongying Shi, Ronghuai Huang, Zuoyu Zhou.



## Springer's Journals

- Smart Learning Environment  
(The Official Journal of IASLE)  
Editors: Huang, R., Kinshuk, & Soloway, E.
- Journal of Computing in Education  
(The Official Journal of GCSCE)  
Editors: Huang, R., Hwang, G.-J., Kong, S.-C., & Chen, W.



## 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.



The 48H Competitive Game of Education Design(2019.01)



Discuss with Prof. Larry Leifer at d.School of Stanford University (2017.04.11)

## 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.



Release Conference of White Paper: Smart Learning Environments in China 2015 (2015.09.20)



Index Report of Smart Learning Environments in Chinese Cities



Index Report of Smart Learning Environments in Chinese Cities

## 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



The Third US-China Smart Education Conference (2018.03)



Series of Horizon Report in China



At a Glance: Education development in the Belt & Road Countries



Smart Learning and OER International High-end Forum (2017.05.25)

## 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.



Initial Conference in Experimental Area of Smart Education in Fuquan, Guizhou rovince



101 Education PPT Solution

## 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.



2016 Educational Robotics White Paper: The Global Development



The Next Big Thing: Global Development tatus and Trends in Educational Robotics



Prototype of Educational Robotics



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- Forum 2: Promoting Digital Literacy in Smart Learning Environment
- Forum 3: New Ecology of Regional Smart Education
- Forum 4: Learning Crisis and Futures of Education
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## Features

### 2022 Global Smart Education Conference

From August 18<sup>th</sup> to 20<sup>th</sup> the 2022 Global Smart Education Conference was held in Beijing with the theme "Intelligent Technology and Digital Transformation in Education". The conference invited experts and scholars from the educational, scientific, technological, and business circles from China and around the world to discuss several points, namely: Blending intelligent technology development and education from the perspective of science and technology enabling education, The learning crisis and the future of education from the perspective of students, The teacher education and teaching innovation from the perspective of teachers, The development of intelligent regional education, rural education transformation and education digital governance from the ecological perspective.

The conference included 12 themed forums, namely:

- Opening Ceremony & Forum on Digital Transformation for Smart Education
- Forum on Teacher Education in Metaverse World
- Forum on Promoting Digital Literacy in Smart Learning Environment
- Forum on the New Ecology of Regional Smart Education
- Teacher Forum on Technology Empowered Teaching Innovatio
- Student Forum on Learning Crisis and Futures of Education
- The 6<sup>th</sup> International Conference on Smart Learning Environments
- Forum on Smart Village and Transformation of Rural Education
- Forum on AI-driven Open Education
- Forum on Digital Governance of Education
- Forum on Reform of School Education in the Intelligent Era
- Forum on Leveraging Intelligent Technology for Education Innovation & Closing Ceremony



Group photo of guests at the opening ceremony



The conference was held online and offline and live-streamed on Metaverse to the world. Totally more than 7.6 million viewers watched the 12 forums online.



**Chaozi Lei**

Director-General of the Department of Science, Technology and Informatization



**Jun Ma**

President of Beijing Normal University



**Qinping Zhao**

Academician of the Chinese Academy of Engineering

### Opening Address



**Branko Ruzic**

First Deputy Prime Minister and Minister of Education, Science and Technological Development, Serbia



**Adejoke Orelope-Adefulire**

Senior Special Assistant to the President on Sustainable Development Goals (SDGs), Nigeria



**Azat Atayew**

Deputy Minister of Education of Turkmenistan



**Tao Zhan**

Director of UNESCO IITE

### Presentation of the results of the National Smart Education Strategy Joint Research Plan & launching of the Initiative for Global Smart Education Network (GSENet)



Results report of the "National Smart Education Strategy Joint Research Plan"



At the opening ceremony, on behalf of the project expert team, Prof. Ronghuai Huang, who is the Co-Dean of the Smart Learning Institute of Beijing Normal University, reported the research results of the "National Smart Education Strategy Joint Research Plan" and launched the "Initiative for GSENet".

The "National Smart Education Strategy Joint Research Plan" was jointly launched by the UNESCO Institute for Information Technologies in Education (UNESCO IITE), Commonwealth of Learning (COL), International Society for Technology in Education (ISTE), National Research University Higher School of Economics (HSE) and Beijing Normal University (BNU).

## Forum on Digital Transformation and Smart Education



The "Forum on Digital Transformation and Smart Education" held on the first day of the conference was co-organized by the Smart Learning Institute of Beijing Normal University, China Institute of Education and Social Development, China basic education quality monitoring Collaborative Innovation Center, Educational Informatization Strategy Research Base of the Ministry of Education (Beijing), Zi Guang Smart Education, and Elearnity Education.

### Keynote Reports



**Chaozi Lei**

Director-General of the Department of Science, Technology and Informatization



**Ke Gong**

Executive Director of China Institute of New Generation Artificial Intelligence Development Strategies



**Jingzhong Zhang**

Academician of the Chinese Academy of Sciences



**Binglin Zhong**

Professor of Beijing Normal University  
Member of the National Education Advisory Committee



**Qinghua Zheng**

Executive Vice President of Xi'an Jiaotong University



**Renato Operti**

Senior Expert of IBE-UNESCO



**Rory McGreal**

Chairholder of the UNESCO/International Council for Open and Distance Education Chair in Open Educational Resources



**Hongtao Wang**

President of Beijing Ziguang Technology Development Co., Ltd.

## Forum on Teacher Education in Metaverse World



On August 18, the "Forum on Teacher Education in Metaverse World" was held at Beijing Normal University. The forum discussed the metaverse and its educational potential, the application scenarios of metaverse in education, the metaverse-empowered teacher education, and AI-boosted teacher development. It provided new ideas for many problems, such as clarifying the innovative application scenarios of the metaverse in education, seeking the path of high-quality education development, reshaping the relationship between education subjects, and reaching educational equity. The forum was jointly organized by the Center for Teacher Education, the Belt and Road Research Institute of Belgrade, the Smart Learning Institute of Beijing Normal University, and Elearnity Education.



**Xudong Zhu**

Dean of the Faculty of Education of Beijing Normal University



**Getachew Engida**

Former deputy director-general of UNESCO



Recently, UNESCO IITE and NetDragon officially launched the "E-Library for teachers" to institutions and countries including Serbia, Tunisia, Ghana, Egypt, Russia, and Thailand. Senior officials from Serbia, Egypt and other countries, representatives from the Ministry of Education and partners from Beijing Normal University, the Commonwealth Learning Community (COL), the International Association for Educational Technology (ISTE), Autodesk, and the Arab League UNESCO (ALECSO) witnessed the launch of the "E-Library for Teachers" in a webinar. The platform will contribute to teacher capacity building by providing educators with advanced digital resources and AI-based educational solutions, thereby empowering teachers to complete high-quality and equitable education.



## Forum on Digital Literacy and Smart Learning



On August 18, the "Forum on Digital Literacy and Smart Learning" was held in Beijing. The forum invited experts and scholars from home and abroad to analyze the application scenarios of sustainable smart education and to start a dialogue on differentiated teaching and personalized learning under smart technology. The core topics covered digital literacy and skills, technology-enabled smart learning, teaching innovation and smart learning environment, which provided ideas and directions for countries to further enhance citizens' digital literacy and promote smart learning practices. The forum was jointly organized by the Faculty of Education of Beijing Normal University, the University of Belgrade, the University of Piraeus and the Institute of Smart Learning of Beijing Normal University.



**Yongli Wang**

Deputy president and secretary-general of the China Education Association for International Exchange



**Vladan Đokić**

Rector of the University of Belgrade

**Professor Kai Yu**, who is a Vice-Dean of the Faculty of Education of Beijing Normal University, launched the "Academic Network for Education of CCHEIC", and introduced the concept and action plan of the community construction. **Professor Danimir Mandić** from the University of Belgrade and **professor Demetrios Sampson** from the University of Piraeus hoped to strengthen the exchanges between universities, research institutions in Central and Eastern European countries (CEEC) and Chinese universities in the field of education, which aimed to promote the sharing of high-quality educational resources, deepen the pragmatic cooperation between countries in the aspects of educational theory research and educational practice innovation, and finally contribute to building a community with a shared future for mankind.



## Forum on the New Ecology of Regional Smart Education



On August 19, the "Forum on the New Ecology of Regional Smart Education" was held in Beijing. Regional education leaders, front-line school principals and teachers, and enterprise representatives discussed on topics such as digital transformation of education and development of regional smart education, construction of smart campus and construction of new ecology of education and teaching, construction of regional smart education empowered by intelligent technology, and innovative management and application of smart education. The forum, which combines online and offline activities, opened sub-sessions in Bengbu, Anhui Province, Wenzhou, Zhejiang Province and Wuhou District of Chengdu City, attracting more than 1.4 million viewers online.



*Report on the Construction Progress of Demonstration Zone of Smart Education*



**Changshan Ren**

Director of Education Informatization and Network Security Division, Department of Science, Technology and Information Technology, Ministry of Education



**Lin Xu**

Director of China Educational Technology, Center for Educational Technology and Resource Development, Ministry of Education, P.R.C (National Center for Educational Technology, NCET)



**Di Wu**

Executive Deputy Director of Education Informatization Strategic Research Base (Central China) of the Ministry of Education of P.R.C



**Xiaoqing Gu**

Member of the secretariat of the project expert group for the construction of a "Smart Education Pilot Zone"

## Student Forum on Learning Crisis and Futures of Education



On the afternoon of August 19<sup>th</sup>, the “Student Forum on Learning Crisis and Futures of Education” was held at Beijing Normal University. Based on the actual situation of their countries and regions and combined with their own experiences, 15 outstanding university student representatives from China, Malaysia, Bangladesh, Serbia, South Africa, Tunisia, Uganda, and Nigeria shared their understanding of the learning crisis and their expectations for the futures of education from four dimensions, namely learning environment reform, learning method innovation, rural student training, and inclusive education realization.

Several guests of honor attended the conference, including SONG Weizu, who is Founder of Beijing Design Society and Deputy Director of the Central Cultural Committee of the China Democratic League; Tatiana Shutova, Programme Specialist at UNESCO IITE; Danimir Mandic, Dean of Teacher Education Faculty, University of Belgrade, Serbia; CHEN Guangju, Vice Director of the University Council, Beijing Normal University; NI Jiaqi, Deputy Secretary of Youth League Branch Committee, Beijing Normal University. WANG Huanhuan, Boulus Shehata, and Michael Agyemang Adarkwah from Beijing Normal University and BAO Haogang from National Institute of Education Sciences co-chaired the Forum. The Forum was held online and onsite and live-streamed to domestic and overseas audiences through many media outlets.



Group Photo of Forum Participants



University Student Representatives

## The International Conference on Smart Learning Environments (ICSLE 2022)



From August 18<sup>th</sup> to 20<sup>th</sup>, the International Conference on Smart Learning Environments (ICSLE 2022), with the theme of “Intelligent Technology Enhanced Smart Learning”, was held at Hangzhou Normal University. The conference was jointly held online and offline in three places, Hangzhou Normal University (China), La Rioja International University (Spain) and Near East University (Cyprus). It is sponsored by the International Association for Smart Learning Environments, and supported by the National Engineering Laboratory for Cyberlearning and Intelligent Technology.



Group Photo of Online Attendees



Offline venue, Hangzhou Normal University

## Forum on Smart Village and Transformation of Rural Education

On August 19<sup>th</sup>, the “Forum on Smart Village and Rural Education Transformation” was held in Beijing. Domestic and foreign guests from international organizations, government agencies, research institutions, Chinese and foreign universities and NGOs shared theoretical research, practices, project results, policy recommendations and excellent cases of education for rural development and transformation in different regions, and discussed educational solutions for smart villages and sustainable rural development to help rural revitalization and the achievement of the UN Sustainable Development Goals. The conference was held online and offline and live-streamed on Metaverse to the world.

The forum was jointly organized by UNESCO International Research and Training Centre for Rural Education (UNESCO INRULED), Southeast Asian Ministers of Education Organization (SEAMEO) Secretariat, Yunus Center at Asian Institute of Technology (AIT, Thailand), the International Centre for Higher Education Innovation under the auspices of UNESCO (UNESCO-ICHEI), and the Smart Learning institute of Beijing Normal University (SLIBNU).



## Forum on AI-driven Open Education

On August 19<sup>th</sup>, the “Forum on AI-driven Open Education” was held online. Experts, scholars and business representatives from many countries were invited to discuss on the deep integration of AI and education, the reform of evaluation empowered by AI, the ethics and safety of AI and the openness of education.

The forum is jointly organized by Smart Learning Institute of Beijing Normal University, the Educational, Cultural and Scientific Organization of the Arab League (ALECSO), the National Open University, and the College of Information Technology and Labor Education of Beijing Institute of Education. The forum is broadcast live to the world.



## Forum on Reform of School Education in the Intelligent Era

On August 20<sup>th</sup>, the “Forum on Reform of School Education in the Intelligent Era” was held at Beijing Normal University. The forum touched on topics such as high-quality development of basic education enabled by intelligent technology, prospects of school education in the intelligent era, mental health assessment of students and inquiry-based learning in the intelligent era, and digital transformation paths and practices of primary and secondary schools.



## Forum on Digital Governance of Education



On August 20<sup>th</sup>, the “Forum on Digital Governance of Education” was held at Beijing Normal University. The forum discussed on topics such as the frontier technology of digitalization, rural education governance, governance of internet education apps and digital transformation of regional education, and explored the new model of data-based educational governance.

Yaonan Wang, academican of Chinese Academy of Engineering, Yayang Tang, secretary of the party committee of Hunan university of science and technology, Shaping Song, executive director of China Institute of Education and Social Development; Tong Lili, associate professor of Education Department of Beijing Normal University; Dr. Mutlu Cukurova, associate professor of University College London, UK, Dr. Eugene G. Kowch, associate professor of University of Calgary, Canada, and Dr. Ig Ibert Bittencourt, Co-Director of the Center of Excellence in Social Technologies, Federal University of Alagoas, Brazil, and other experts and scholars in the field of digital governance in education from home and abroad attended the conference.



Group Photo of Attendees

## The Fifth Global Competition on Design for Future Education



During July 22<sup>nd</sup>-24<sup>th</sup>, 2022, finals of the Fifth Global Competition on Design for Future Education was successfully held in Beijing. The student track of this year's competition attracted more than 1,000 applicants, covering 183 institutions from nearly 20 countries and regions, including Serbia, South Korea and Vietnam, and a total of 35 project teams consisting of more than 200 participants entered the 48-hour transnational design finals after online learning and preliminary selection.



小组赛：组内对决，一分高下

云端备赛：预演汇报，如火如荼



路演汇报：强强对决，最后一战

决赛评审：专家学者，指点迷津





## List of Winners

A total of 1,036 college students and 152 teams registered for the students' track. The applicants came from 183 institutions around the world, including 163 domestic institutions such as Beijing Normal University, Tsinghua University, Zhejiang University, Wuhan University, etc. (including nearly 40% of first-class universities), and 20 international institutions such as University of the Arts London, Lingnan University in Korea, University of Botra in Malaysia, University of Belgrade in Serbia, and Hanoi University of Science and Technology in Vietnam. The institutions covered nearly 20 countries and regions, including China, Vietnam, Serbia, Japan, Malaysia, Canada, Korea, and France. The students' track produced 137 entries, of which 35 were finalists. The shortlisted works mainly focus on health education, special education, teacher education, vocational education, rural aesthetic education, subject knowledge teaching, classroom tools and curriculum development. The output forms of the works mainly include APP, web page, physical object, hardware, solution and so on. In the design of the work, more than 90% of the team used virtual reality, image recognition, speech recognition and other emerging technologies. In the end, the student track produced a total of 1 gold, 2 silver, 3 bronze, 9 excellence awards.

A total of 529 primary and secondary school teachers registered for the teachers' track, and 77 cases were shortlisted for the final, involving teaching practice, curriculum development, tool research and development, extracurricular learning, student training and other aspects. Areas of interest include: information technology and the application of various learning models; Education to promote rural revitalization; Double reduction policy implementation and other aspects. There were 10 first prizes, 24 second prizes and 43 third prizes.

奖项	作品名称	获奖团队
金奖	The empowered teacher for the META future	The empowered teachers
银奖	The design of future classroom of picture books drama for blind children	目中光
	Question Visualization Analyzer	Education for a Changing World
铜奖	Simulation training education for orthopedic (prospective) practitioners	秉骨——VR骨科教育
	Paint on the silent world—providing new ways to read without barriers for hearing-impaired people	绘声达意
	A visual game system design for children with dyslexia	阅来工作室

## List of Winners from Students' Track

奖项	作品名称	获奖团队
优秀奖	Edutainment——Metaverse and game pave the way for career planning education	赶海队
	X-folio Community Portfolio Cocreation Platform	未来可期
	“The Same” ——An Online and Offline Education Platform for Gender Equality	“反歧视”小分队
	Rural Education Support Hackerspace	星辰计划队
	UNBOUNDNESS——Interior and Landscape design of art classroom under “ Metaverse + Education ”	正好延续未来美术队
	Planet 23#——An immersive interactive experience platform for high school students with social disabilities	未来教育家
	Edutainment in Film——Research and dissemination of film education for primary and secondary schools in Rural Regions	寓教于影项目团队
	《元宇宙种植园——依托元宇宙的自然教育》	种地小分队
	Case Development of interdisciplinary school-based Curriculum Design——Pu'er City ,Yunnan Province	大梦想家

## Important Events

### The List of Excellent Cases of Smart Education in 2022

To implement the strategic action of digital education and promote the development of education and encourage experience sharing, the secretariat of the expert group of "Smart Education Demonstration Zone" Project and the Strategic Research Base of Education Informatization of the Ministry of Education (Beijing, Central China, and Northwest China) carried out a collection of smart education cases. 123 cases were elected as excellent cases after recommendation, case-writing training, modification, and expert review. Among the cases, 30 are about regional construction, 77 school practices, 8 solutions, and 8 research results.



### Regional Construction

序号	案例名称	作者	作者单位
1	数据赋能、体系重塑，东城教育登上高位优质均衡大舞台	周林 <sup>1</sup> 李磊 <sup>1</sup> 张淑敏 <sup>1</sup> 李玉顺 <sup>2</sup>	1. 北京市东城区教委；2. 北京师范大学
2	北京东城智慧教育“数据大脑”建设与应用	杜斌 张智雄 张硕 王天阳 侯晓燕 苏宁	北京市东城区智慧教育研究中心
3	群智共享促进区域创客教师专业发展	解萍 古国栋 段燕青	山西省运城市教育局
4	“野百合”迎来了“春天”——“三个课堂”赋能永济乡村教育质量提升	石百胜 张玉霞	山西省运城市永济教育局



### School Practices

序号	案例名称	作者	作者单位
1	数字故事促进数学教与学方式积极转变的实践探索	逯娜 任虹 马俊鹏 张敏 王蕊 武英	北京第一师范学校附属小学
2	智能平台赋能数学核心素养表现性评价的实践探索	刁善玉 思佳 <sup>1</sup> 李葆萍 <sup>2</sup> 任虹 <sup>1</sup>	1. 北京第一师范学校附属小学；2. 北京师范大学
3	基于北京数字学校平台的京剧混合式综合实践课程教学模式创新实践	董顺利 滕亚杰 宋燕 晖 赵志梅 孙彤	北京东城区灯市口小学

## Solutions

序号	案例名称	作者	作者单位
1	基于知识图谱构建的教学资源建设与应用解决方案	刘超 王宏宇 李慧杰	重点领域教学资源建设项目管理办公室
2	智慧教育F5G全光网络解决方案	张军 张锐利 张翔 雒鹏 贾林	华为技术有限公司

## Research Results

序号	案例名称	作者	作者单位
1	融合交互，构筑后疫情时代教学新常态的思考—基于东城区教师混合式教学的调查	张丽莉 张述林 束旭 黄亮 饶芳 李川皓	北京市东城区教育科学研究院
2	“双减”背景下混合学习体系化模式设计及有效模式研究	朱永海 <sup>1</sup> 徐莹莹 <sup>2</sup> 彭英杰 <sup>3</sup> 肖红伟 <sup>4</sup> 蔡阳合 <sup>5</sup> 江结裳 <sup>5</sup> 周楚君 <sup>5</sup> 黄志坚 <sup>5</sup> 张翔 <sup>6</sup>	1. 首都师范大学儿童与未来教育创新研究院；2. 南方科技大学教育集团（南山）第二实验学校；3. 佛山市南海区狮山镇教育发展中心；4. 佛山市南海区狮山镇罗村中心小学；5. 佛山市南海区狮山镇联和吴汉小学；6. 佛山市南海区狮山镇光明新城小学；7. 首都师范大学儿童与未来教育创新研究院

## Seminar for Executives of Enterprises in Smart Education Pilot Zone Construction Held in Beijing

Recently, the "Seminar for executives of enterprises in Smart Education Pilot Zone Construction" hosted by the Haidian Internet Education Research Institute was held in Beijing. The meeting invited leaders of the Haidian District Education Commission, experts from the Institute of Education Science of Haidian District, experts from Smart Learning Institute of Beijing Normal University and senior executives of high-end and advanced enterprises in Haidian District to carry out discussions, giving full play to the leadership of the government, the research ability of experts and the technical power of enterprises. It encouraged enterprises to actively explore the construction of smart education demonstration zone. The meeting formed up a a triad of "Government - Research - Enterprise" to discuss the development of the smart education of Haidian.



Professor Huang Ronghuai, deputy leader of the expert group of the Smart Education Pilot Zone of the Ministry of Education and president of the Smart Learning Institute of Beijing Normal University, spoke highly of the fruitful results of Haidian education and the technical strength of science & technology enterprises. He pointed out that the high quality development of Smart Education Pilot Zone should solve six problems, such as students' literacy, teaching reform, regional education balance, application of technology in teaching, and education decision-making. Huang gave three suggestions for Haidian education:

1. Go global. Follow the trend of digital transformation. View Chinese education from an international perspective. Take advantage of the joint research between universities and enterprises. Shape Haidian's smart education program from a global perspective, and write the Chinese story.
2. Establish an information exchange mechanism for industry, university and research institutes. The Internet Education Research Institute serves as a good platform. We should set up a special class, and give full play to the leading role of the government, the wisdom of the experts of the research institutions and the technical strength of enterprises to demonstrate smart education programs.
3. Establish an alliance between industry, academia and research for the digital transformation of education. Based in Haidian, focusing on the whole country and facing the world, we will jointly create a new industry of digital education transformation to empower education, promote GDP further, and assume social responsibility such as college students' employment.

## Project News



The course "Design and Learning" officially started in September for this semester. The project team screened and confirmed the enrolled students, held a course promotion meeting, and invited the course lecturers and previous students to share their experience. More than 200 students signed up for the course. The course utilizes the Jingshi Online platform for learning material sharing and assignment submission.

Submitted by **Hongyan Kuai**



In this quarter, the project team of "China Smart Learning (2023) : Smart Learning Research Product Report" determined the report content framework, held meetings to discuss and modify the report framework and content. According to the strategic background of the new infrastructure, the report aims to conduct research on smart learning products in six key directions, and conduct thematic writing in combination with the learning smart products in the "nine fields" to clarify the current standards, significance, development and future development trends of smart learning products.

Submitted by **Yanli Jiao**



National Smart Education Framework Project: from September 14 to 16, the project team participated in the 10th Pan-Commonwealth Open Learning Forum (PCF10) organized by the Commonwealth Learning Community (COL) and Athabasca University (AU) in Calgary, Canada, where Dean Huang and Professor Yunwu Wang shared two keynote reports on behalf of the team, which are titled "Rethinking and Redesigning National Smart Education Strategy" and "National public services for smart learning. popularize high-quality education: Cases from China ”

Submitted by **Tingwen Chang**



In September, the project team for the construction of the China-CEEC Higher Education Community (Education Discipline) officially submitted the "Excellent Cases of China-CEEC Education Cooperation" to the China Education Association for International Exchange(CEAIE).

—Submitted by **Hao Chen**



The project team of "Regional Smart Education Cases Output" promoted the second stage of composition and preparation for publication. Four sets of excellent cases of regional smart education were revised, and the writing of the "Report of Smart Education Development and the Suggestions" was completed.

Submitted by **Yongzhong Wang**



The Southeast Asia Joint Laboratory on Education Informatization conducted data research on the “World Higher Education Digitization Development Index in Southeast Asia”, and communicated with the Secretariat of the Southeast Asian Ministers of Education Organization (SEAMEO) about Beijing Normal University joining its network of partner universities, and planned to invite the network as a participating institution or member institution of the GSENet.

Submitted by **Xinjian Qi**



The project team of the White Paper on the Development of Global Educational Robots completed the revision of the draft of the *Technical Guide for Teaching Resources and Curriculum Construction Based on Knowledge Graph*. The five virtual teaching and research rooms declared by the project team are also announced in the "Key Areas - Pilot list of Virtual Teaching and Research rooms".

Submitted by **Youjie Yao**



The final version of the *International Report of Supportive Environment on Artificial Intelligence Courses in K-12* (English Ver.) was released on the official website of SLIBNU on August 20.

Submitted by **Youjie Yao**



# Books & Articles

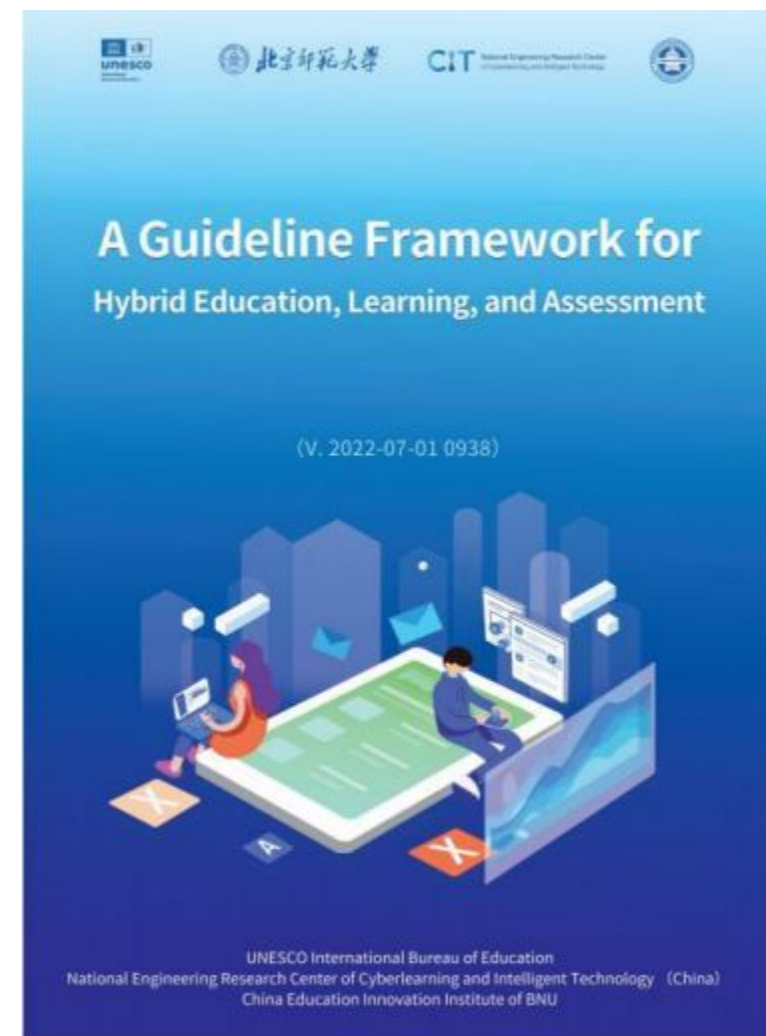
## Dean Ronghuai Huang Interviewed by Economic Daily: Promoting the Deep Integration of Science and Technology with Education

The 14th Five-Year Plan and the 2035 Vision Target Outline call for a digital China. In January this year, The State Council issued the "14th Five-Year Plan for the Development of Digital Economy", which proposes to further promote smart education and the sustainable development of "Internet+education". President Ronghuai Huang was invited to speak on these topics. On September 9, Economic Daily published an interview with President Ronghuai Huang. Huang pointed out that a new pattern of deep integration of science & technology and education is emerging. Facing a series of tasks, such as the comprehensive reform of education and the implementation of new compulsory education curriculum plan and "double reduction" policy, it is necessary to promote the digital transformation to ensure the high-quality development of education.



## Guidance Framework for Hybrid Education, Learning, and Assessment

Recently, the *Guidance Framework for Hybrid Education, Learning, and Assessment (Chinese version)* was released by IBE-UNESCO, the National Engineering Laboratory for Cyberlearning and Intelligent Technology and the China Education Innovation Institute, Beijing Normal University. The framework aims to address the major challenges posed to education by the accelerated development of AI technologies and the COVID-19 pandemic, and to rethink the future of education. The guidance analyzes the concepts, key elements and guidelines of Hybrid Education, Learning and Assessment (HELA), and demonstrates the pedagogical model of hybrid learning and assessment, including pre-analysis and clarification of course objectives, description of learning objectives and definition of learning outcomes, implementation of hybrid education and learning, constraints and evaluation of learning, and provides practical examples of hybrid learning and assessment supported by AI. The framework provides key strategies to implement HELA and guidelines for practices in the transformation of curriculum and teaching to support the widespread application of technology for hybrid learning and resilient teaching. It may contribute to educational equity and the achievement of the United Nations Sustainable Development Goals.



## Cooperation and Communication

### Dean Ronghuai Huang Attended the Education Summit Held at the 2022 CIFTIS

#### Promote the Two-way Empowerment of Technology and Education



According to Ronghuai Huang, director of the Educational Informatization Strategy Research Base (Beijing) of the Ministry of Education, director of the Smart Learning Institute of Beijing Normal University, and director of the National Engineering Laboratory for Cyberlearning and Intelligent Technology, there are three core areas of technology-enabled education, namely students growth, teacher development and environment improvement. Digital transformation is a basic need of high-quality development of education, and it is necessary to promote digital awareness, digital thinking and digital application in all fields, for all elements, through all processes and in all business. Facing new challenges and opportunities in the new era, it is necessary for experts and scholars in the fields of education and technology to exchange and share more research results to promote the two-way empowerment of technology and education. At the same time, global cooperation in education should be promoted to jointly explore the development path of smart education.

