

Jingshi

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

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_x0002_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

- 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 province



101 Education PPT Solution

Educational Robotics Center

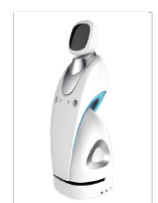
Study on the scenarios of robotics in education and the trend of artificial intelligence; Develop the courses for robotic education and STEAM education for K-12 schools. Design educational robotic for various learning fields, such as school, family, etc.



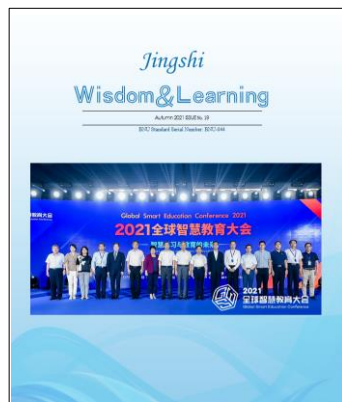
2016 Educational Robotics White Paper: The Global Development



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



Prototype of Educational Robotics



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- ◆ Pre-competition training in preparation for Global Competition on Design for Future Education 2021
- ◆ Global Chinese Conference of Computer in Education rounded off at Beijing Normal University
- ◆ SLI OER sustainability model-related research presented at UNESCO OER webinar
- ◆ "Design & Learning" course Launched at Beijing Normal University in 2021



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- ◆ Dean Huang was invited to deliver a speech at the International Forum of the Thailand Equity Education Fund
- ◆ Dean Huang was invited to deliver a keynote speech at the 2021 (20th) China Internet Conference
- ◆ Dean Huang was invited to speak at ASU+GSV Global EdTech Summit

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Man Wan



Global Smart Education Conference

Opening Ceremony & Forum on Artificial Intelligence and Futures of Education

On August 18, Global Smart Education Conference 2021 was launched in Beijing. With the theme of smart learning and future of education, the conference focused on the impact of smart technology on the future of education, smart technology for education equity and balance, global strategic synergy and sustainable development of smart education, the new normal of "Internet+Education" during the epidemic to explore the future of smart education development with an international perspective.

Stefania Giannini, UNESCO Assistant Director-General for Education, addressed that technology should be designed and used in the service of humanity, to promote human capabilities, protect human rights and embody the concept of sustainable development.



The conference is co-hosted by Beijing Normal University and UNESCO Institute for Information Technology in Education(IITE), and co-organized by Smart Learning Institute of Beijing Normal University(SLI BNU), China Institute of Education and Social Development, China Collaborative Innovation Center for Basic Education Quality Monitoring, National Engineering Laboratory for Cyberlearning and Intelligent Technology(CIT), and Educational Informatization Strategy Research Base(Beijing) of Ministry of Education.

On the first day of the conference, experts in fields of education, science and technology from China, USA, Russia, the UK, Germany, Japan, Canada, India, Serbia and other countries attended the opening ceremony and forum. The conference was broadcast live to the world by a number of media outlets, hitting 3 million views.

Keynote Reports



Qinqing Zhao

Academician of the Chinese Academy of Engineering

Virtual reality technology has given birth to new teaching and learning models, and virtual simulation experimental teaching has become a typical teaching model supported by intelligent technology. By promoting VR "new infrastructure", we can develop digital twin network, support VR deep application, and welcome a new realm for future education

Qi Dong

President of Beijing Normal University

In the era of "Internet+Education". We are willing to cooperate more widely with the world to promote equity and balance in education, to promote all-round development and personalized growth of human beings, to bring quality education to more people, and to contribute to the common welfare of mankind.



Chaozi Lei

Secretary of Science, Technology and Information Department, Ministry of Education

Smart education promotes a new infrastructure of networks, platforms, resources, campuses, applications and security in education, providing a strong foundation and application environment for innovative change and high-quality development in education, offering more flexible and personalized services, and enhancing the overall development of smart education.



Changwei Qin

Secretary General of the Chinese National Commission for UNESCO

China will more actively promote the implementation of the UN 2030 Agenda for Education for Sustainable Development, participate more deeply in global education governance, and build multilateral platforms for international education exchange and cooperation more carefully, and thus contributing to the promotion of education in the smart era.



The Release of “National Smart Education Strategy”

At the opening ceremony, the National Smart Education Strategy Research Project, which is jointly sponsored by UNSECO IITE, COL, ISTE, the Russian Higher State Economic University of Research(HSE) and Beijing Normal University(BNU), released the results of its phased research-- **“An on-going Report of Joint Project on Rethinking and Redesigning National Smart Education Strategy”**

Since the launch of the research work in 2020, as the secretariat of the strategic plan, SLIBNU has been working collaboratively with 4 partner institutions towards 5 areas: overview of education informatization policies, national smart education strategy, smart education assessment and monitoring indicators, models and characteristics of smart campuses, and national public service system of smart learning, to sort out the education informatization experience in various countries and explore smart education development strategies. The partners reached a consensus and gained preliminary research results. The project is known to last for 5 years or more.



Professor Huang Ronghuai, Dean of SLIBNU and Director of the National Engineering Laboratory for Cyberlearning and Intelligent Technology

Keynote Reports

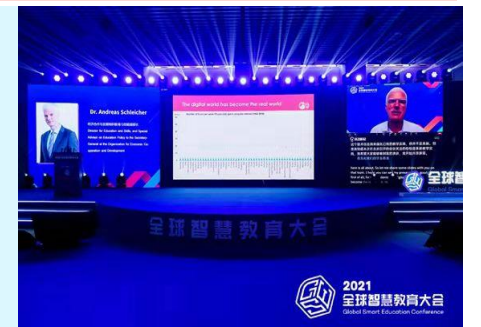
How to empower education with technology to reduce students' burden and enhance their learning ability and how to contribute to technological advancement with high-quality education and innovative talents to support and lead sustainable development was a core topic of the conference. In light of above, attending experts delivered keynote speeches. The key points of several brilliant speeches are demonstrated below.

Andreas Schleicher

Initiator of PISA

Director for education and skills at OECD

The epidemic has pushed digital technology from the margins to the center of education field, where technology not only enriches teaching methods, but also empowers students with more skills.



Li Chen

Vice President of Beijing Normal University

The promotion of "Internet + education" should focus on six directions: educational cyberspace, educational data, online and offline integration of educational practices, the new industry of online education, reform of the educational system and mechanism, and educational concepts.



Asha S.Kanwar

President and CEO of COL

Smart education ought to emphasize the "5 E's", which are Ethical, Enjoyable, Engaging, Efficient, and Effective, to ensure that students learn and apply what they have learned.



Maosong Sun

Foreign Member of European Academy of Sciences

Professor of Tsinghua University

AI for online education and teaching is supposed to establish learning social networks and even national online learning spaces, and carry out research and construction based on big data in education.



Forum on Smart Education and Digital Resources

The forum is organized by UNESCO IITE, SLIBNU and Eternity. The conference focuses on the integration and development of information technology and education in the digital age, providing guidance and advice for teacher growth.



Christopher Dede

Professor of School of Education,
Harvard University

Shared the application status of AI in education, and how new technology support the education development during pandemic.



Joseph South

Chief Learning Officer of ISTE

Proposed 3 suggestions for education policy makers and administrators: create stress-resistant education systems, focus on building digital learning environments, and develop forward-looking national policies and initiatives.



Getachew Engida

Former Deputy Director-General of
UNESCO

Achieving the 2030 agenda for sustainable development requires innovative cooperative mechanisms and approaches, as well as joint efforts of the international community.



Li Xiong

CEO of NETDRAGON

NETDRAGON launched a production base of global digital education resources last year to develop and produce resources, and deliver them to more countries.



Sanjaya Mishra

Education Specialist of COL

It is very important that all people have access to quality education, and it is very necessary to develop policies for smart education, which must incorporate the participation of common people at bottom of society, while financial support is also essential.

Teachers' E-library Project Launching Ceremony

The "Teacher Capacity Building with AI and Digital Technologies: E-library for Teachers" project was launched. In March of this year, UNESCO IITE and NeTDragon jointly planned and launched this project.



Round Table Forum

On the round table forum, the speakers discussed how smart education and digital resources are changing the future of education, taking a hybrid mode which includes online and onsite sessions.

Speakers list:

Jorge Cauz, CEO of Britannica Group

Li Yan, Director of Books and Editorial Director of Humanities and Social Sciences of Springer

Nature Publishing Group in China

Masaaki Isozu, President and CEO of Sony International Education

Danimir Mandic, Dean of the Faculty of Teacher Education of the University of Belgrade

Zhang Ze, Deputy Chief Editor of Higher Education Publishing House

Qian Feifei, Head of China Business of Lego

John Collick, Head of International Education Strategy of NETDRAGON



Forum on 5G Empowering Smart Education



The forum was jointly organized by China Mobile (Chengdu) Industry Research Institute and CIT. The conference held an in-depth discussion on the new education infrastructure, 5G technology application in smart education, 5G technology-enabled smart assessment, education informatization and education modernization in different regions. The achievements of China Mobile's smart education product development were also released on the forum.



Tom Poole

Global Key Accounts Director of Bett Portfolio

Director of BettAsia Summit

Report Title: Smart Education

Technology and its Implementation and Application in the UK



Demetrios Sampson

Professor of University of Piraeus, School of Digital Systems, Department of Learning, Education and Digital Systems

Report Title: Digital Smart Citizenship Education in the Post-Epidemic Era

Lijun Zhao

Deputy Dean of Industry Research Institute of China Mobile (Chengdu)

With 5G and other new information technology deeply empowering education, smart education will achieve high quality development, and education informatization 2.0 will also realize new breakthroughs



Shengquan Yu

Executive Director of Future Education High Precision Innovation Center, BNU

Smart education is the future direction of education, but there are still some structural dilemmas in sustaining smart education.



Bing Wei

Deputy General Manager of Government and Enterprise Division, CMCC

We should make every effort to ensure the upgrading of infrastructure and build a new environment for talent cultivation; initiate innovation in information technology application to help cultivate a new model for talent training; and actively assist in the balanced development of education to provide an inclusive new service for inclusive cultivation.



Quan Zhang

Director of Teaching and Equipment Informatization Division, Department of Basic Education, Ministry of Education

5G and other cutting-edge technologies have a decisive impact on the ecosystem of smart education. We should make full use of them to improve our capabilities and efficiency, and jointly build a smart education system under 5G technology.



Nikoleta Giannoutsou

JRC Scientific Program Officer, SELFIE Project Leader of the European Commission

Discusses how 5G technology can empower education in areas such as personalized learning, and analyzes the effects of teachers, school leaders, and government in the process.



Forum on Regional Smart Education New Ecosystem

On August 19, "Regional Smart Education New Ecology Forum" of Global Smart Education Conference 2021 was held. At the conference, many local officials, experts and scholars exchanged experiences and discussed how to play a greater role in promoting the high-quality development of regional education.

Keynote Report



Chaozi Lei

Secretary of Science, Technology and Information Department,
Ministry of Education

Each place should focus on its own situation, find its own characteristics, give full display of its advantages, and form a distinctive path for smart education. **The development of smart education should be people-oriented**, avoid the "technology-only theory", paying close attention to the changes brought by smart technology in education to teachers and learners, and create an educational atmosphere with humanistic care.



Lin Zhou

Vice Director, Education Commission of Dongcheng District,
Beijing

In the 3rd and 4th quarters of 2020, Dongcheng district focused on "transforming teaching and learnign via data", launched "data brain"project, and has by far teased out and analyzed about 300 types of data.



Yaqin, Miu

Deputy Director of Education Bureau, Changsha City, Hunan Province

High-quality education in the new era focused more on nurturing people. Changsha makes full use of the basis that the city's primary and secondary schools basically realize individual space for everyone, enough space for schools and classes, to ensure the objectivity and fairness of evaluation results and the operability of evaluation implementation.



Jing Ao

Director of Smart Education Promotion Office, Wuhou District
Education Bureau, Chengdu

Smart education requires the construction of smart environment, smart teaching model and smart education system, which is a long-term exploration process to be summarized in practice and practiced from experience.



Shaolong Wang

Deputy Director-General of Education Bureau of Xingqing district,
Yinchuan, Ningxia Province

Xingqing district has made great efforts in integrating internal and external resources and teacher training, and explored an effective path to promote regional teacher professional development in line with local education ecology.

Forum on Artificial Intelligence and Social Governance

The forum participants had academic exchanges on topics of the cutting-edge technology of AI, social computing in ternary space, urban-rural education balance, intergenerational equity of smart applications.



Guangju Chen

Vice Chairman of the Council of BNU

In the new mode of "AI + social governance", we should guide the standardized development of AI, promote data sharing, improve data quality, and at the same time develop technical application norms in line with data security and data ethics.



Dr. Tore Hoel

Researcher at Oslo City University

We should pay attention to the operation and maintainance of AI throughout its lifecycle, establish a good ethical environment for AI education applications, and further enhance its reliability and safety.



Ting Liu

Director of Department of Computing, Harbin Institute of Technology

Presented the report entitled "On Triadic Spaces - An Example of Social Media Observation and Prediction", which focuses on exploring the synergy between the three core elements of material, spirit and information.

Yaonan Wang

Academician of the Chinese Academy of Engineering

Clarified the three directions of artificial intelligence development, introduced the new model and new form of industry that promote network collaboration, intelligent production, service-oriented manufacturing, other new models and industries in manufacturing through AI software. He also emphasized carrying out precise technology governance across industries.



Release of "Campus for Child"-an information platform

On behalf of the Ministry of Education's Education Informatization Strategy Research Base (Beijing), the deputy director Tong Lili introduced the "Campus for Child" information platform to the participants and delegates.



Round Table Forum

The roundtable forum focused on "China's solution for social governance of artificial intelligence". The speakers suggested that legislation and regulation should be strengthened, the underlying infrastructure should be solidified, boundary awareness should be established, braking mechanisms, fault tolerance mechanisms, distribution mechanisms and bi-modal mechanisms should be set up, etc.

Speakers included:

Prof. Shu Huaying, Beijing University of Posts and Telecommunications, Special Allowance Expert of the State Council

Prof. Wu Shuilong, Assistant Dean, School of Management and Economics, Beijing University of Technology

Lei Mingyu, Director of the Business Development Department of the Institute of Technology and Standards of the China Academy of Information and Communications Technology

Dr. Lv Mingjie, Senior Research Specialist of Zhijiang Lab Intelligent Social Governance Research Center

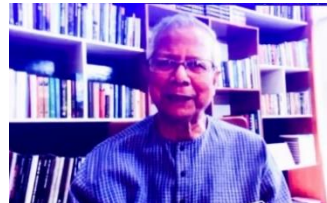
Wang Bin, CEO of Beijing Cloudpoint Technology Co.



Forum on Smart Countryside and Ecological Civilization

➤ Focusing on rural development and sustainability, the forum explored the cross-border integration of rural development and intelligence through sharing cutting-edge theories and successful cases, as well as strategies and solutions promoting rural revitalisation and sustainable development under epidemic conditions, and launched initiatives to strengthen partnership networks and establish rural revitalisation and education excellence centres.

Opening speech



Yunus

Bangladeshi economist

Nobel Prize and Olympic laureate

The kind of education we pass on to the next generation is the kind of world they will create. A rural revitalisation and education excellence and education excellence centre could be established to help us cultivate the future generation



Xudong Zhu

Director of Teaching and Learning Department, BNU

Innovative, ground-breaking, leading and exemplary new models of cross-border integration that can effectively help achieve rural revitalisation should be strongly developed.



Zuoyu Zhou

Vice President of BNU

Beijing Normal University has long been focusing on interest in rural education and worked with UNESCO to support the International Centre for Research and Training in Rural Education (ICRRE) to carry out targeted research and education for rural transformation projects.



Ethel Agnes P Valenzuel

Secretary General, Southeast Asian Ministers of Education Organization

Governments in the South East Asia region are also adopting technology and digital solutions. SEAMEO and its 26 sub-centres, as well as 11 member countries, are involved in contributing to smart education.

Keynote speech



Faiz H. Shah

Director of Yunus Center, Asian Institute of Technology

Explained the parallel expansion of globalisation, urbanisation and digitalisation in detail. The pandemic is an opportunity to reset some of the destructive trends that have emerged from these three trends, such as wealth concentration, environmental risks and social inequalities. This vibration allows us to recreate a new global environment that is more humane, more responsible and less selfish.

Country-specific Case Sharing



Analiza C. Diaz

Scientific Research Specialist, Department of Science and Technology, Philippine Council of Agriculture, Fisheries and Natural Resources Research and Development

Exploring Bamboo Farmers' Adoption of Mobile Apps as a Marketing Strategy and Willingness to Respond to COVID 19: The Case of Maasin in Iloilo, Philippines



Sukich Udindu

Director of SEAMEO SEPS, Thailand
"Community Living Lab: A Self-Sufficiency Economic Philosophy for Achieving the Sustainable Development Goals"



Ghaffar Ali

Associate Professor, School of Management, Shenzhen University, China
The report name was "China-Pakistan Economic Corridor and the future of the food industry in Pakistan".



Jackson Dukpa

Founder of Bhutan Global Village Connection, Founder of Better World Alliance
The report name was "Global Village Connections Initiative - A path to a better world"

Forum on OEP and Teacher Capacity Building

The conference invited experts, scholars and representatives from international organisations to discuss the issues of Open Educational Practices (OEP) and teacher capacity building.



Ebba Ossiannilsson

OER President of International Council for Open and Distance Education (ICDE)

Introduced the series of research work related to open education practices conducted by ICDE and congratulated on the convening of the forum.



Jiayi HU

Associate Professor, Beijing Institute of Education

The report focused on enhancing the digital skills of citizens, applying digital technology to education and teaching, and using digital technology to improve the state of education



Mohamed Jemni

Director of the ICT section of ALECSO

Introduced the research results achieved by the SLI-ALECSO joint smart learning lab in the areas of open education, inclusive education and the Global Competition on Design

for Future Education



Ahmed Tlili

Co-Director of OER Lab of SLIBNU

Delivered the report «An Overview of Education Development in the Arab Region: Insights and Recommendations Towards Sustainable Development Goals (SDG) »



Song Li

Vice President of China National Open University

Shared in detail on the background and objectives of the open education informatization construction of China National Open University, as well as the overall structure of *One Road, One Network, One Platform*



Rory McGreal

Chair of OER, UNESCO International Council on Open and Distance Education

Using Open Educational Resources (OER) is a way to support SDG4, ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.



Ramesh Sharma

Associate Professor, School of International Affairs, Ambedkar University

Sharing examples of open education practice in India, while he also stated that open education will play an important role in contributing to the achievement of SDG4 goals



Dinan And one

Director of the Online Learning Center at the Polytechnic Institute of Timisoara, Romania

Open educational practices have a positive effect on promoting student learning effects, enhancing students' ability to identify, access, learn, analyse and apply knowledge, as well as enhancing their skills and developing their professional competencies.



Xianlian Zou

Secretary and Principal of Xing Yuan Primary School, Liang Jiang New Area, Chongqing

Shared from four dimensions--what is OMO smart education, why is it, how to make it and how is it--combing the cases of Chongqing Xinyuan Primary School.

Forum on Education Big Data and Learning Analytics



The forum held in-depth discussions on educational management big data, data-driven educational evaluation, online educational discourse interaction behavior analysis, data-intensive research and paradigm change.



Xiaoru Wu

President of KDDI

Analyzing children's learning points and strengths and weakness of skills based on the data of their behaviours in various learning activities can bring together the wisdom of experts in education and experts in fields including artificial intelligence, so as to provide more guidance on the integration of teaching and technology.



Kinshuk

Dean, School of Information, University of North Texas

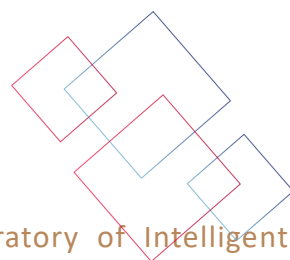
Proposed an intelligent approach to learning analysis by using past records, real-time observations to understand students' abilities, preferences and literacy, and analyzed what they all need in terms of teacher guidance and goals to achieve in order to ultimately understand their learning process.



Qinhua Zheng

Director of Distance Education Research Centre, BNU
Deputy Director of National Engineering Laboratory of Intelligent Technology and Application of Internet Education

Data-driven education evaluation should be based on intelligent literacy in the era of human-computer collaboration, following a continuous iterative process of on-site observation and data collection, cleaning and aggregation of multimodal data, and modelling of intelligent literacy evaluation, resulting in evaluation results that support development



Sannyuya Liu

Executive Deputy Director of National Engineering Laboratory of Education Big Data Application Technology, National Digital Learning Engineering Technology Research Center

Elaborated the practical application of intelligent modeling of learner behavior and discourse content in online learning environment through the hybrid research methods of behavior sequence analysis, semantic analysis and machine learning.

Shijin Wang

Vice President of KDDI and Chief Scientist of Education Technology

Focused on applying personalised teaching and learning through artificial intelligence to promote teaching and learning according to students' aptitude. The presentation illustrated the need for breakthroughs in core AI technologies to reduce the burden of teachers and students and to teach according to students' aptitude, introduced the latest AI technology advances and typical applications, and finally introduced the practice and thinking of Xunfei Education from precision teaching and personalised learning respectively.



Yunbo Cao

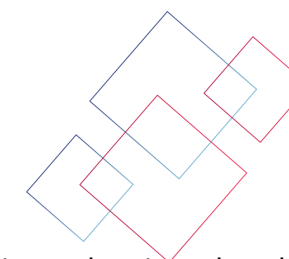
Chief Scientist of Tencent Intelligent Platform

Combining with Tencent's educational solutions, he introduced the application of AI technology in educational scenarios, which can provide precise teaching based on big data, realize the data-driven and intelligence-driven of the whole chain of "teaching, learning, testing, evaluation and management", and then achieve the promotion of teachers' teaching efficiency and students' learning efficiency.

Jing Liang

Squirrel AI Partner

Explored solutions of "How the education AI SaaS platform can help reduce the burden and increase the efficiency of the public school system" in the context of the double reduction policy, depicting Squirrel AI build such an adaptive teaching platform to provide a multi-dimensional and comprehensive intelligent education solution for "teaching", "learning", "testing", "assessment", "research" and "management".



Closing Ceremony & Forum on Education Design and Talent Development

➤ CIT released the "2021 China Internet Education Product Evaluation and Analysis Report" and the "Internet Education Product Evaluation and Analysis Cloud Platform", which aimed to help the regulation and governance of education apps and promote their orderly and healthy development.

CIT launched the research of "China Internet Education Product Development Index" in 2016, and in 2021, the project team joined hands with several universities and enterprises to establish a joint laboratory for Internet education product evaluation and analysis, based on a combination of manual evaluation, machine evaluation and public opinion analysis, to evaluate and analyze 60 typical education apps in 7 dimensions: platform support, privacy and data security, Internet learning awareness, functional testing and product maturity, content adaptation, UE and social evaluation.

Guangju Chen, vice director of BNU board of regents announced the release of "2021 China Internet Education Product Evaluation and Analysis Report"



The report proposed 5 suggestions for development:

1. Strengthen the supervision and monitoring of education app quality, and establish a permanent education app record and dynamic withdrawal mechanism.
2. Accelerate the development of the education app quality evaluation system and strengthen the pilot promotion of high-quality education apps.
3. Improve the public service system of online education and improve the self-discipline of education app enterprises.
4. Establish an open and shared mechanism for resources and strengthen the protection of intellectual property rights of education apps.
5. Establish an education App big data warning and disposal platform, and enhance awareness of data security and privacy protection.

Important Events

"National Engineering Laboratory of Intelligent Technology and Application of Internet Education" passed inspection

➤ On 10 September 2021, the Department of Science, Technology and Informatization of the Ministry of Education organized an acceptance meeting for the construction project of "National Engineering Laboratory for Cyberlearning and Intelligent Technology" at Beijing Normal University. The 11-member acceptance expert group, consisting of Zhao Qiping- academician of the Chinese Academy of Engineering - and experts in related fields, reviewed the project. The acceptance expert group **unanimously agreed that the laboratory passed the acceptance and recommended that it should be incorporated into the new sequence of national engineering research centre for further construction.**



Acceptance meeting spot



Group photo

Professor Huang Ronghuai, Director of the laboratory, reported to the expert group from the aspects of laboratory operation mechanism, construction content, construction objectives and completion during the preparatory period, construction effectiveness and medium and long-term development planning.



Zhao Qiping, academician of the Chinese Academy of Engineering



Professor Chen Guang Ju

It is expected that the laboratory will take this optimization and adjustment as an opportunity to continue to carry out the practice of intelligent technology innovation in Internet education, improve the service capacity of intelligent education industry and create an international first-class education research platform.

Pre-competition training in preparation for Global Competition on Design for Future Education 2021

In order to raise awareness of the importance of inclusive education, Beijing Normal University will hold the "2021 Global Competition on Design for Future Education" to explore innovative solutions in promoting the realization of "inclusive education". The competition is divided into two tracks: global university students and primary&secondary school teachers. To promote the smooth running of the competition and enhance its impact, SLI has organised pre-competition training, summer training camps and workshops.

Pre-tournament training session



Pre-competition training session for 2021 Global Competition on Design for Future Education conducted online

On 13 July 2021, hosted by BNU and organized by SLIBNU, a pre-competition training session for the 2021 Global Competition on Design for Future Education was held online. This event aims to help participants understand the competition and encourage them to actively think about how they can provide practical solutions to difficult problems for the future of education through design.

"Future Education Design" Summer Training Camp

On 27 July 2021, the Future Education Design Summer Training Camp started. Students from 26 universities across China gathered at the Changping Campus of BNU to begin their four-day learning journey. With the theme of "Classroom of the Future", the participants were guided by eight experts, mentors and design methodology courses to find new ideas and methods in education and complete group designs.



Experts giving lectures to student participants



Participants doing presentations

Teaching Case Design Workshop and Training Session for Primary & Secondary Schools

On 7 August 2021, the "2021 Global Competition on Design for Future Education-Teaching Case Design Workshop&Training Session for Primary and Secondary Schools" was held online. The conference aimed to provide guidance for participated teachers on case design through expert lectures and sharing of outstanding cases, which would help them to produce more outstanding cases. Professor Chen Guangju gave an opening speech on the conference, pointing out that the development of the times and changes in technology will definitely lead to new thinking about education and teaching, encouraging more teachers to participate in educational design.

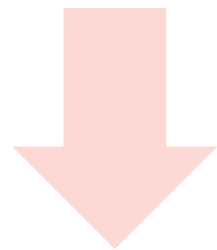
On this session, nearly 600 primary and secondary school teachers participated online.

Global Chinese Conference of Computer in Education rounded off at Beijing Normal University

The theme of this year's conference is "Reinventing Computer Education", with English sessions nine Chinese sub-sessions including topics such as "Learning Sciences & Computer-Supported Collaborative Learning" and Mobile, Ubiquitous & Contextual Learning".



On 13 September, the opening ceremony was held.



On 14th September, the Global Chinese Conference of Computer in Education- Educational Design and Educational Innovation Forum was held at Beijing Normal University. Professor Chen Guangju of BNU took on the chairman of the forum. Three experts, Shi Jianguo, vice president of China Institute of Educational Equipment; Kuai Hongyan, director of the Design and Learning Laboratory of SLIBNU; and Yuan Zhongguo, head of the Information Technology Teaching and Research Group of the NPC Central School, delivered inspiring speeches.



SLI OER sustainability model-related research presented at UNESCO OER webinar

On 29 July, the webinar on Open Educational Resources (OER) organised by UNESCO was successfully held. Dr. Ahmed Tlili from SLIBNU attended the workshop and his research on OER was recognized by UNESCO and the information was published on UNESCO's official website.

The topic of this webinar is "Post pandemic teaching: Exploring the Sustainability of Open Educational Resources". Dr Ahmed Tlili, together with Dean Huang, Dr Tingwen Chang, Dr Xiangling Zhang and external experts Daniel Burgos and Fabio Nascimbeni explored the important role of OER in the global education environment during the epidemic. The study presents funding and business models for sustainable OER and proposes a variety of OER models including public crowdfunding, internal crowdfunding, and endowment.

The UNESCO considered SLI's research on OER to be of great importance in contributing to the reform and development of education worldwide in the post-epidemic period.

Launch of the "Design & Learning" course at Beijing Normal University in 2021

The 2021 "Design & Learning" course was officially launched on 28 September, with professors Huang Ronghuai, Liu Dejian and Shi Jianguo leading the course. 100+ undergraduate students from 30+ countries at home and abroad will attend the course online and offline. "Project-based learning (PBL)" approach is adopted. Students need to team up to complete projects, while more than 10 teachers from universities and companies will provide guidance.



Professor Huang Ronghuai interacts with students



Distance teaching by Professor Liu Dejian

Project Status

Huawei - BNU Education Information Technology Research and Innovation Cooperation Project

The project team and Huawei's education team have reached agreement on the direction and key contents of cooperation of next three to five years. The two parties will carry out comprehensive and in-depth cooperation in the direction of "education-specific operating system", "virtual simulation experiment environment", "intelligent teaching and learning" and "embodied cognition and teaching behaviour analysis", which will be completed through three cycles.

The two parties have initially drawn up the first phase cooperation of the project agreement, including seven sub-projects: the Harmony OS project, the VR Instruction project, the Virtual Instructor project, the Remote Interactive Teaching project, the All-Optical Education project, the Smart Classroom project and the Intelligent Light Display Application Scenario research.

--Submitted by Yongzhong Wang

Smart Campus Construction Project in Wuhou District, Chengdu

The project team revised the "Smart Campus Construction Plan (Phase I) for Longjiang Road Primary School in Wuhou District, Chengdu" based on the current situation and actual demands of the construction of the Longjiang Road Primary School. On the basis of the preliminary work, the project team and Longjiang Road Primary School basically agreed on a long-term cooperation intention for the next 3-5 years, and will carry out in-depth cooperation through three cycles of projects.

--Submitted by Yongzhong Wang

Shenzhen Longhua District Cooperation Project

In September, Lei Weihua, the Mayor of Shenzhen Longhua District, and Wang Yuxi, the Director of Education Bureau, came to BNU to visit and exchange ideas with the National Engineering Laboratory of Cyberlearning and Intelligent Technology.

--Submitted by Yanli Jiao



2021 Smart Learning Environment White Paper

In August, the "2021 Smart Learning Environment White Paper" project team invited experts in the fields of smart cities, school education, family education, rural education, community education and venue education to discuss the contents of the white paper project. The meeting clarified the positioning of the white paper and opened up research ideas for further work on it.

--Submitted by Yanli Jiao

Declaration of Higher Education Teaching Achievement Award

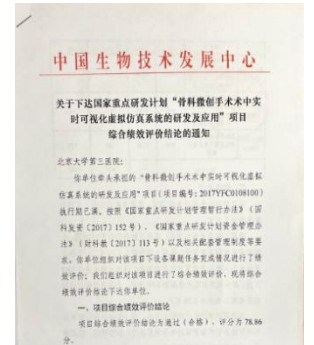
The title of the result declared for the Higher Education Teaching Achievement Award of Beijing Normal University in 2021 is "Design and Learning Course Construction for the Intelligent Era" which won the First Prize.

--Submitted by
Hongyan Kuai

Research and development of a virtual simulation system for minimally invasive orthopaedic surgery in real time

The orthopaedic project team attended the overall comprehensive performance evaluation meeting on 14 July and reported on the completion of the project. The project successfully passed the comprehensive performance evaluation on August 12.

--Submitted by Youjie Yao



Research and Practice on Building New Teaching Materials Based on Knowledge Graphs

The project team has joined hands with China Education Publishing Media Group to complete the declaration of the project on Research and Practice of Teaching Materials in Emerging Fields (Title: Research and Practice of New Teaching Materials Construction Based on Knowledge Graph). The project proposes to carry out research and application of new teaching materials construction based on knowledge mapping technology in emerging fields through literature research method, empirical research method and software engineering method, explore the establishment of characteristics and standards that new teaching materials should have to adapt to the cultivation of talents in emerging fields, study new interactive design and editing tools for new teaching materials, and design a model of support platform for the operation of new teaching materials.

--Submitted by Youjie Yao

Information Technology Subject Curriculum Standards for General High School

The seminar was held on 27-28 July at the Changping Campus of Beijing Normal University. 26 teachers and researchers from all over China participated in the seminar.

--Submitted by Youjie Yao



Educational App Assessment and Analysis Laboratory Construction

The project team has worked with a number of universities, research institutes and enterprises to develop a total of 90 test points for educational app evaluation standards. The lab portal was built to provide services such as lab introduction, research results release and educational app assessment query. A working platform for online app evaluation in the Internet Education Common Service Development Platform has been built, which can provide customised testing and research services for enterprise users and schools, and interoperate with the portal evaluation data.

--Submitted by Youjie Yao

Co-operation and Communication

➤ Dean Huang was invited to deliver a keynote speech at the 2021 (20th) China Internet Conference

2021 (20th) China Internet Conference was held at the China National Convention Centre in Beijing from 13-15 July, with the theme of "New Stage, New Concept, New Pattern - Internet Leads New Development of Digital Economy". During the conference, the "Smart Education Summit Forum" was successfully held in the afternoon of July 13. President Huang was invited to attend and deliver a keynote speech



➤ Dean Huang was invited to deliver a speech at the International Forum of the Thailand Equity Education Fund

The Equity Education Fund International Forum organised by the Equity Education Foundation (EEF) of Thailand was successfully held through webinar on 23 July. The topic is "rethinking on the quality and resilience of education: China's experience on flexible teaching and learning during the epidemic". Dean Huang attended the forum and delivered a speech to share China's experience on flexible teaching.



➤ Dean Huang was invited to speak at ASU+GSV Global EdTech Summit

The ASU+ GSV Global EdTech Summit was held on 9 August and was organized by Arizona State University and Global Silicon Valley online and offline. The summit aims to bring together leading ideas in social and business transformation in the areas of learning and work, and is dedicated to giving all people an equal opportunity to participate in the future. Dean Huang was invited and delivered a keynote speech in the keynote session "Education in a Post-Epidemic World: An Experiment in Continuity and Equity in Offline and Online Integrated Education in China"



➤ Dean Huang: "5G+Smart Education" pilot helps innovation in key education scenarios

On 26 September, the Chinese Ministry of Industry and Information Technology and the Ministry of Education jointly issued the Notice on the Organization of Pilot Projects for "5G+Wisdom Education". In response to this pilot project, Dean Huang of SLIBNU stated that 5G has broad application prospects in the field of education. He believes it can optimize the smart learning environment, innovate the form of learning and teaching, improve the learning experience and teaching effectiveness, promote the level of smart education services and the level of education governance modernization, and boost the high-quality and balanced development of regional, urban-rural and inter-school education.

The deep integration of 5G and education will accelerate the transform of traditional education and the development of mobile education, give rise to a new ecology of smart education, realize the proposition of two-way empowerment of technology and education, and bring new opportunities to the future development of education.

Books & Articles

- **“The Theory and Practice of Informationization Promoting the Sharing of Quality Educational Resources” won the Second Prize of the Sixth National Award for Outstanding Achievements in Educational Scientific Research of the Ministry of Education**



This book is a major achievement of “Research on Informatization Promoting Sharing of High Quality Educational Resources”((ACA120005), which is a 2012 Key Pedagogy Project in the 12th Five-Year Plan of China National Social Science Foundation.

- **Towards an Age of Intelligence: Education, Technology and Social Development**

The book, edited by Professor Guan Chenghua, Director of the Future Education Research Centre, and Professor Huang Ronghuai, Dean of SLI, places future education in the context of the times and argues that the smart age is the basic starting point for future education research and practice, and therefore future education should be explored based on the frontiers of educational development in the interelligent age. On this basis, the book's general introduction puts forward five major points of consensus on the future of education, including:

- The development of the whole person as the fundamental
- Active learning as the centre
- Competence enhancement as a grasp
- Quality supply as the guide
- Optimising governance as a guarantee



- **Xinhua Digest Reprint | The New Shape of Future Education: Flexible Teaching and Active Learning**

Authors: Roghuai Huang, Yan Wang, Huanhuan Huang, Luxing, Bojun Gao

Academic Papers Published

- Cultivation of Innovation Capabilities for Human-Machine Collaboration - On the Demand for Creative Talents in the Age of Intelligence**

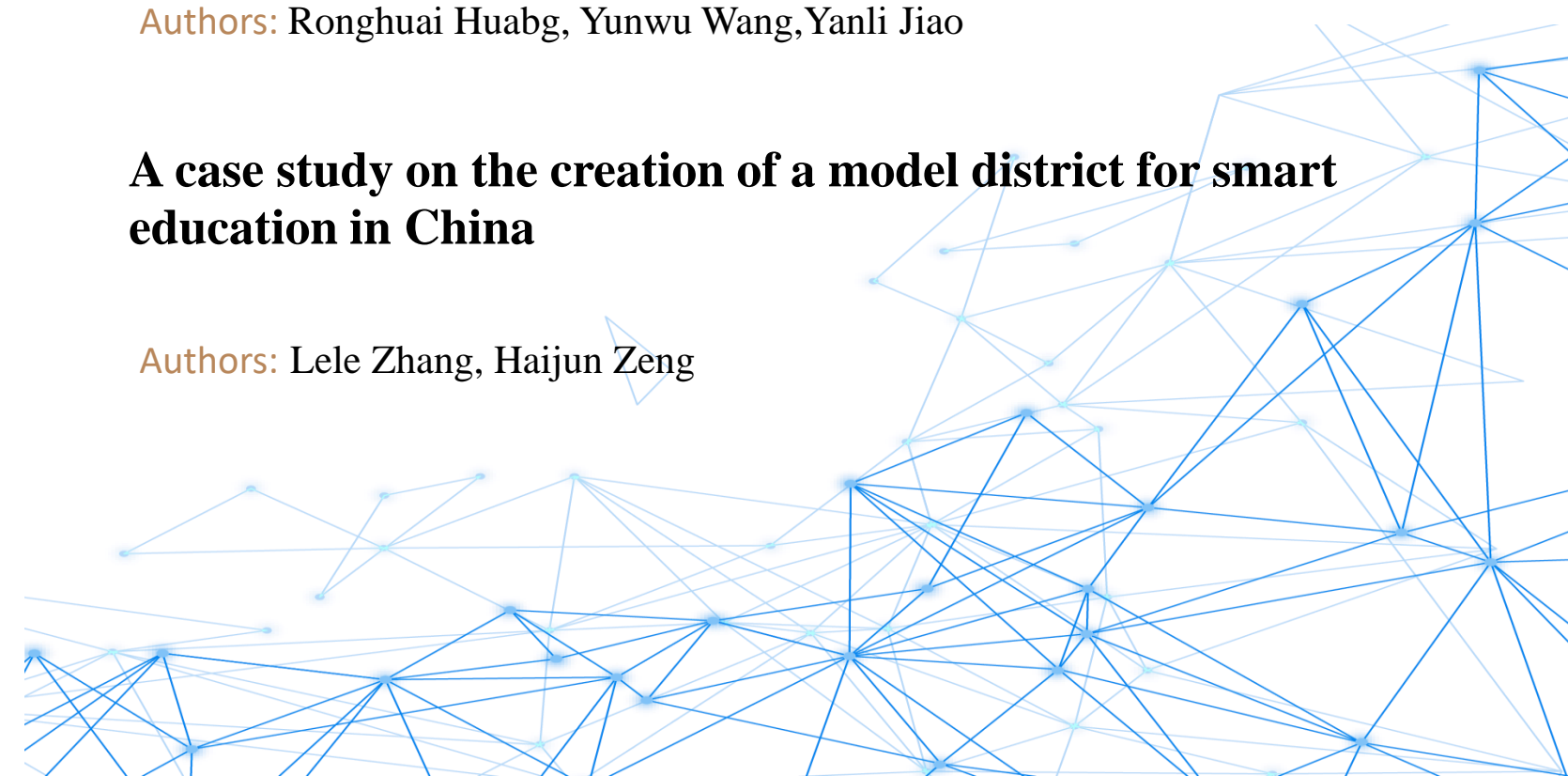
Authors: Jihong Li, Rongxia Zhuang, Zhiying Nian, Dejian Liu、Ronghuai Huang

- Transforming Education for the Smart Age - A Proposition on the Two-Way Empowerment of Technology and Education**

Authors: Ronghuai Huabg, Yunwu Wang, Yanli Jiao

- A case study on the creation of a model district for smart education in China**

Authors: Lele Zhang, Haijun Zeng



Exclusive Interview

Q: Hello Ms Wan, you have been with the Institute for four years now, as the backbone of the Institute, can you share with us your work and feelings here?

A: Time flies like a flash, from July 2018 when I officially joined the Institute to now, it has been almost four years, and I have turned from an ignorant newcomer to a veteran employee. To me, the Institute is like my second home and I love the work and atmosphere here. In particular, there are so many excellent colleagues and masters, and I have made tremendous progress unconsciously through my interactions and cooperation with them.

The work I have been involved in so far could be summarised in two parts: academic research and project activities. In view of academic research, I have been involved in writing the “Report on Education Informatization in China's Central” and “Eastern European Countries and Ensuring Effective Distance Education during the New Crown Epidemic School Closures: A Teacher's Guide”. In particular, I followed up on the “Report on Education Informatization in China's Central”, from framework building, data collection, inviting experts, writing and revising, to publication. The whole process lasted for about a year, during which I made numerous communications and revisions. It made me understand more deeply that not only a love for academics, but also a rigorous attitude are necessary for an academic career.

In terms of project activities, I was involved in organizing the “11th International Cognitive Load Theory Conference”, the “One Belt, One Road Summer Training Programme at Beijing Normal University”, and several sessions of the “Global Competition on Design for Future Education”.



Man Wan
Smart Learning Institute, Beijing
Normal University, Research
Assistant.

During this period, my job content changed gradually from being responsible for just a small part of these events at the beginning, to gradually participating in the organization and preparation of the whole event. I witnessed the whole process from planning to implementation of these events, and learned rich experience in project organization. In addition to this, I also came into contact with many excellent conference attendees and activities participants, and their feedback give me more confidence in my work. Especially one student who participated in the “Global Competition on Design for Future Education” sent me a piece of good news the year after the competition, sharing her joy at having successfully applied for a national scholarship as a result of her participation in the competition. At that moment, I felt that it was worth all the effort that the things SLI is doing might be having an impact on others in ways we didn't know, and that even the seemingly ordinary things were actually very meaningful.

Q: You have been involved several times in the project “Global Competition on Design for Future Education” and this year's competition will be launched soon. Could you give us a detailed introduction of this competition?

A: The “Global Competition on Design for Future Education” is an international event jointly organized by Beijing Normal University and other domestic and international organizations, universities and renowned technology companies. It has been held annually since 2018 and has received widespread attention and enthusiastic response worldwide. Professor Mingyuan Gu of the Faculty of Education of Beijing Normal University, Professor Guanzhong Liu of the Academy of Arts&Design of Tsinghua University, and Professor Larry Leifer of the Stanford School of Mechanical Engineering served as the principal advisors of the competition. Experts and scholars from universities and enterprises worldwide also provide guidance for the entries. Starting from 2021, the competition will have a dual track for teachers and students respectively, inviting teachers and students around the world to explore future-oriented educational solutions and work towards better educational opportunities for humanity.

The themes of this year's competition are "Artificial Intelligence and Education", "Metaverse and Education", "Rural Education" and "Inclusive Education", aiming to deepen different groups of people's understanding on educational design in the intelligent age, apply emerging technologies such as artificial intelligence and metaverse to solve key problems in education, and address educational problems in rural and underdeveloped areas, and promote cross-cultural and interdisciplinary exchanges. It can be said that it is not just a competition, but can be seen as an exploratory learning and innovation opportunity for university students and primary and secondary school teachers. Whatever the purpose of the participants in this competition, it is definitely worth the journey!

This is the fifth year of the competition, and it meets the 120th anniversary of the founding of Beijing Normal University. The Global Future Education Design Competition is listed a major event for the anniversary. Let's look forward to it!

Q: What are your goals and expectations for the future?

A: My team is currently preparing for the "2022 Global Competition on Design for Future Education" while actively promoting the globalization of the competition. From this point of view, I hope that we can make it better and more influential, so that it can become an internationally renowned design competition and a brand event for the Smart Learning Institute and BNU!

Personally, as the saying goes, "I have come a long way, but I know very little", and after experiencing so many important events and meeting so many excellent students and teachers, I feel that I still have many gaps to fill in. I am learning actively and hoping to make a breakthrough in both academic research and project management in the future.