京师智学刊

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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Jingshi Wisdom&Learning

Spring 2022 ISSUE No.21

BNU Standard Serial Number: BNU-044

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

Spring 2022, ISSUE No.21

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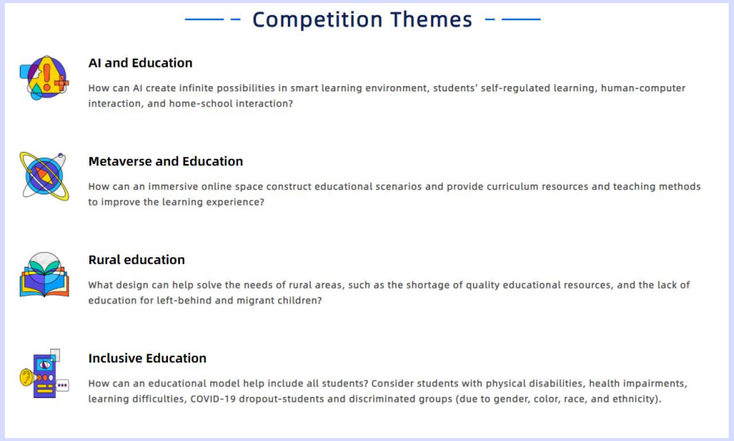

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Global Competition on Design for Future Education

On March 7, 2022, registration for the 5th Global Future Education Design Competition was officially started. The competition is jointly organised by Beijing Normal University, domestic and international organisations, universities and renowned technology companies. It aims to deepen the understanding of educational design among different groups in the smart era, apply emerging technologies such as artificial intelligence and metaverse to solve key problems in education, address educational issues in rural and less developed areas, and promote cross-cultural and interdisciplinary exchanges. Global Competition on Design for Future Education will also be a key event at Beijing Normal University this year as the university celebrates its 120th anniversary.

Competition Themes

AI and Education：Artificial Intelligence and Education: AI will bring infinite possibilities in smart learning environments, independent student learning, teacher-machine collaboration and home-school collaboration. Design creative solutions to make education smarter and more efficient.

Metaverse and Education: Applying the metaverse to education for an interactive and immersive learning experience for both teachers and students.

Rural education: Designing effective solutions to overcome the shortage of quality education resources in rural areas and the lack of education for left-behind children, and promote education in rural areas.

Inclusive Education: Designing effective solutions for people excluded from some schools due to physical disabilities, health disorders, learning difficulties, gender discrimination, various crises, etc. to ensure that inclusive education is achieved.

Enterprise Consultation Meeting

On March 24, the “5th Global Competition on Design for Future Education (2022) Enterprise Consultation Meeting" was held through a combination of online and offline mode. Experts from Beijing Normal University, China Institute of Educational Equipment, Netdragon, EEO Education, Alibaba Cloud, Tencent, Huawei, and KDDI attended the meeting to discuss how to further improve the quality of the competition, discover and cultivate outstanding talents, and output more valuable results for enterprises and society.

Guijing Huang

Senior Vice President, Alibaba Cloud Education

Participants are expected to start from a "user first" perspective, highlight the value of user experience in their work, and design according to real user needs and practical application scenarios. In recent years, Alibaba Cloud has placed great importance on the abilities of candidates to collect problems and solve them from a user's perspective, and to apply scientific research, interviews, interviews and other research methods and expertise to product development and application.

Mi Liu

Vice President, Experience Design Specialist, Netdragon

Experience design has come a long way since it was first proposed, yet many designers are unable to keep up with the times in terms of their capabilities. In the future, there will be a greater need for people with extensive design knowledge and the ability to design for physical, interactive and visual experiences.

Primary and secondary school teacher track consultation sessions

On March 24, the "5th Global Competiotion on Design for Future Education(2022) Primary and Secondary School Teachers' Track Consultation Session" was successfully held through a combination of online and offline formats. Education managers and frontline teachers from Beijing, Shanghai, Zhejiang, Shandong, Sichuan, Chongqing, Hubei, Jiangxi and other provinces participated in the meeting, offering advice and suggestions for the collection of cases for the primary and secondary school teachers' track, helping to improve the quality of the competition and output more excellent cases.

Guangju Chen

Vice Chairman of the Council of BNU,Chairman of the Competition Steering Committee,

In the context of the development of AI, information technology and other digital technologies, the importance of educational design has become increasingly prominent, and we need to pay more attention to the ways and means of cultivating talents. The Global Competition on Design for Future Education will help participating teachers to improve themselves and promote the development of regional basic education.

Jianguo Shi

Vice President of China Academy of Educational Equipment, Expert of the competition

Future Education is not unreachable, it can be interpreted as the future-oriented rural education, inclusive education, and AI education, etc. The competition core is "transformation and innovation of learning methods based on design thinking", we should firmly grasp the design thinking of "problem-conception-solution"; the essence of education modernisation is future-oriented, and the presentation of the works should not only be a solution, but also a "creation"; the case evaluation focuses on whether there are breakthroughs and innovations, and whether they can solve practical problems.

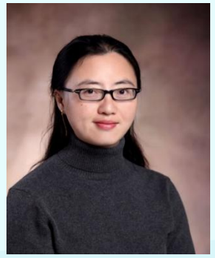
Information session for Primary and secondary school teachers track

On April 1, an info session on the "5th Global Cokpetition on Design for Future Education (2022)" for primary and secondary school teachers track was held online. The session provided design guidance for participating teachers through the sharing of outstanding case studies to help primary and secondary school teachers produce more outstanding works. Nearly 200 primary and secondary school teachers attended the presentation session online.

Xianlian Zou

Headmaster of Xing Yuan Primary School, Liang Jiang New Area, Chongqing

Taking the award-winning case "Development and Implementation of a Technology+Creation School-based Curriculum" as an example, she shared her insights and feelings on the competition. Ms Zou emphasised the importance of case selection and suggested writing cases along the lines of "definition, problem, application, effectiveness, replication", focusing on universality, replicability, scientificity and public value, and fully reflecting the strengths and highlights of each aspect of case design.



Hongjuan Liu

Head Teacher, Beijing Wangfu School

It is important to design cases that are oriented towards practical problems, to focus on finding the application of the project's landing point as well as the development of students' independent inquiry skills. Design thinking and reflective innovation are crucial in an education system where the needs of the learner are the initial and anchor point for carrying out educational work in a digital context.

Youth Artificial Intelligent Innovation Initiatives

On 28 December 2021, the "Youth Artificial Intelligence Innovation Initiatives" (also known as "Yuanzhuo Project") initiated by BNU and jointly implemented by several universities, primary and secondary schools and technology enterprises, held a kick-off event in Beijing. Starting from January 2022, the "Yuan Zhuo Project" continuse to carry out weekly community activities to encourage young people to use original and innovative AI algorithms to solve real-life problems, build a collaborative mechanism among universities, primary and secondary schools, and technology enterprises, collect young people's AI projects for cultivation, and provide a full range of support including algorithms, computing power, data sets, knowledge and experience etc., to promote the development of youth AI education, showcase outstanding results internationally and help China become a major AI innovation centre in the world. By the end of March 2022, the Yuanzhuo Project has organised nine community events with a total of over 1,000 participants, each event invited at least two industry professionals or experts to give talks, and a total of 18 experts has been invited. The project also successively released community event brochures for January and February.

Topics for Community Events 1-9

Event 1: Case Study on Outstanding Results of Artificial Intelligence Projects for Youth

Event 2: Innovative applications of artificial intelligence in future smart education

Event 3: "High-Popularity" Cooperation for Youth Artificial Intelligence Education

Event 4: The Current Situation of Teaching Artificial Intelligence Algorithms to Youths from Textbooks

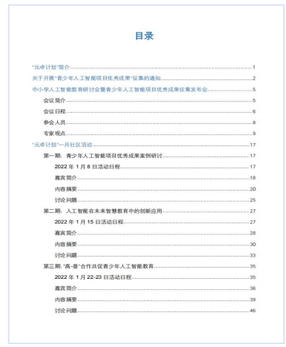
Event 5: Project-based Teaching Practice of Typical AI Algorithms

Event 6 "Community Lecture": Machine Learning Algorithms + Project-based Teaching Practice

Event 7: How to leverage to your advantage? Reflections on "Artificial Intelligence Curriculum and Teaching

Event 8: Machine Learning in Primary and Secondary Schools + Educational Applications of Artificial Intelligence Technology

Event 9: Machine Learning Algorithms + Artificial Intelligence School-based Curriculum for High Schools



Expert Keynote Lectures

Xiao Liang

Information Technology Teacher, The High School Affiliated to Renmin University of China

Title: "Sharing of practical cases of artificial intelligence courses in NPC Central School"

Jifei Wang

Instructor, Beijing Creative Education

"Mentoring Practice for Artificial Intelligence Innovation Projects for Secondary School Students"

Yongqian Li

Information Technology Teacher, The High School Affiliated to Zhejiang Normal University

"A Showcase of Outstanding Artificial Intelligence Work by Secondary School Students"

Chengwei Huang

Zhijiang Laboratory

Engineering Specialist

"Innovative Applications of Artificial Intelligence in the Future of Smart Education"

Chongzhen Zhang

Algorithm Researcher, Smart Education Centre, Shanghai Artificial Intelligence Laboratory

"How to come up with an AI topic"

Zhongming Weng

Associate Professor, Tianjin University

"Exploration and practice of artificial intelligence teaching for young people with the help of university teachers"

Luoqin Li

Volunteer IT/STEAM Researcher, Daishan County Education and Research Office, Zhoushan City, Zhejiang Province

"Design and Practice of a School-based Artificial Intelligence Module for Senior Secondary Schools under Core Literacy"

Dongli Wang

Teacher, National Engineering Laboratory of Intelligent Technology and Application of Internet Education

"A Review of AI Teaching Materials for Primary and Secondary Schools - An Analysis Based on 45 Published Teaching Materials"

Minghao Liu

Senior AI Engineer

"Deep learning: a mainstream technology in the era of AI+"

Lei Fan

Professor of Capital Normal University

"Fan Lei's course series on Machine Learning Algorithms (I) (II) (III)"

Lan Wu

Head of IT Teaching and Research Team, NPC No. 2 Secondary School

"Project-based teaching practices in high school artificial intelligence courses"

Yadan Qiu

Director of Intelligence Course Development Team of Random Number Ltd.

"Deep learning for handwritten digit recognition project-based teaching"

Jinbao Zhang

Associate Professor, Department of Education, Beijing Normal University

"How to leverage to your advantage? Reflections on "Artificial Intelligence Curriculum and Teaching"

Xin Jin

Director of Science and Technology Innovation Centre, Fengtai Affiliated High School of Renmin University of China

"A Brief Introduction to Machine Learning in Primary and Secondary Schools"

Long Qin

Senior Director of Education, Alibaba Cloud

"AI technology in educational scenarios"

Mingyong Luo

Senior Teacher of The Second High School Affiliated to BNU Beijing Normal University

Second Affiliated High School shares its AI teaching practices

Important Events

National Engineering Laboratory of Intelligent Technology and Application of Internet Education is incorporated into the management of the new sequence of National Engineering Research Centres

In January, the National Development and Reform Commission announced the list of national engineering research centres included in the new sequence of management, and the National Engineering Laboratory of Intelligent Technology and Application of Internet Education was listed.

33	危爆物品探测技术国家工程研究中心	清华大学	教育部	北京市
34	固体废物能源化清洁利用技术与装备国家工程研究中心	浙江大学	教育部	浙江省
35	大气污染物与温室气体协同控制国家工程研究中心	清华大学	教育部	江苏省
36	互联网教育智能技术及应用国家工程研究中心	北京师范大学	教育部	北京市
37	大数据系统软件国家工程研究中心	清华大学	教育部	北京市
38	教育大数据应用技术国家工程研究中心	华中师范大学	教育部	湖北省
39	电子信息产品标准化国家工程研究中心	中国电子技术标准化研究院	工业和信息化部	深圳市
40	新一代移动通信测试验证国家工程研究中心	中国信息通信研究院	工业和信息化部	北京市
41	网络安全等级保护与安全保卫技术国家工程研究中心	公安部第三研究所	公安部	上海市

List of National Engineering Research Centres included in the new sequence of management (partial)）

The Expert Group of the National Key R&D Program "Social Governance and Smart Society Science and Technology Support" was established and held its first plenary meeting

On 25 February, the inaugural meeting of the expert group of the National Key R&D Programme "Social Governance and Smart Society Science and Technology Support" was held in Beijing. The meeting was held in a combinition mode through online and offline, and was attended by academician Zhang Jun, the head of the overall expert group and all members of the group, as well as Ke Bing, the Deputy Director of 21st Century Centre and the management team of the project.

Group photo of the participants

Call for Smart Education Excellence Proposals

The Secretariat of the Expert Group for the "Smart Education Demonstration Zone" project commissioned by the Department of Science, Technology and Informatization of the Ministry of Education, is now collecting excellent cases of smart education, and compiling a collection of cases after being reviewed by experts. This activity aims to actively promote the "Smart Education Demonstration Zone" project, promote regional exchanges and learning, summarise experiences, identify problems and cooperate with research, and promote digital transformation and intelligent upgrading of education.

"Research on Artificial Intelligence and Future Development of Smart Education" Results Presentation

On the morning of March 5, a report on the results of the 2019 National Social Science Foundation Key Project on Education "Research on Artificial Intelligence and Future Education Development" was held at SLIBNU. President Huang, the subject leader, reported the research results, afterwards the expert group commented on the overall research situation of the subject.

Dean Huang reporting on research findings

GSE2022 Global Smart Education Conference is Launched

In order to promote digital transformation and intelligent upgrading of education and strengthen international communication and cooperation, the 2022 edition of the Global Smart Education Conference (GSE2022), approved by the Department of International Cooperation and Exchange of the Ministry of Education, will be hosted by Beijing Normal University in Beijing on August 18 to 20, 2022. With the theme of Intelligent Technology and Digital Transformation in Education, the conference will invite academicians, experts, scholars, government officials, representatives of international organizations, enterprises, media representatives, teachers and postgraduates in the field of education technology from around the world to discuss new theories, emerging technologies, latest achievements and trends in smart education globally to share relevant cases, build platforms for communication and to establish alliances for cooperation.

The GSE 2022 includes ten thematic forums and will take a hybrid mode which includes online and onsite sessions. International research outcomes and related sets of cases will be released during the event. Technologies including VR/AR will be applied to build a metaverse venue to improve audiences' experience of communication and interaction and also to display our innovative solutions for digital education. We welcome all global partners to join us to co-organize the thematic forums and parallel sessions to grace the event.

Project News

Educational App Assessment Project

On March 5, Professor Chen Guangju, on behalf of the project team, released the "China Internet Education Application Measurement and Evaluation Research Report (2022)". The report covers six dimensions: educational video content on self-media platforms, user experience, personal privacy and data protection, content and functional safety, research on the use of regional educational apps, and monitoring of the undertaking of the"double reduction" policy, etc. It covers 320 mainstream softwares and over 70,000 user data.

On March 13, the project team discussed the construction of the laboratory, the development of the platform and the book writing. On March 25, the project team formed a preliminary framework for the book.

Submitted by Yanli Jiao

Shenzhen Longhua District Cooperation Project

A strategic cooperation framework agreement was signed between Shenzhen Longhua District and Beijing Normal University in November 2021. The program is aimed to give full play to the advantages of Beijing Normal University's education disciplines, research platforms, international exchanges and other resources to jointly promote the two-way integration of technology&education in Longhua District, and build up an example of future urban education. Since the program is launched, the sub-projects have established contact with relevant experts and formed a preliminary cooperation mechanism. Meanwhile, the "jointlyt recruited post-doctoral fellows" have communicated with relevant supervisors and incoming PhDs, conducted a survey of educational APPs and analyzed the data. By March 31, nine collaborative projects have identified project leaders and completed their proposals.

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Submitted by Yanli Jiao

Global Development of Educational Robotics White Paper (English version)

In March, the list of expert groups was drawn up and the division of labour was carried out. Revised the framework of the White Paper catalogue in English and Chinese. Checked policies on information technology, artificial intelligence, robotics, "double reduction" and competitions, and browsed conferences such as the World Robotics Congress and the World Artificial Intelligence Congress to sort out content related to educational robotics. Summarise representative educational robotics companies and their products to provide information for identifying mentoring experts, interviewees and partner companies, and for subsequent robotics assessments. Search the Chinese and English literature in the field of educational robotics and robotics education, summarise the research concerns of the last three years, and revise the definitions of educational service robotics and robotics education. Initiate collaboration with the University of Belgrade after a project planning presentation at the Institute's project meeting.

Submitted by Youjie Yao

Rural Education Revitalisation and Export of Education Information Technology Achievements

Education plays a fundamental and pioneering role in rural revitalisation, the project was launched in February 2022 and dedicated to co-ordinate the work of promoting rural education revitalisation and education revitalisation of the countryside, research the current situation, problems and paths of rural education and rural education informatisation development in China, expand the social attention and help revitalise rural education in China. The pre-study of the project has been completed, a concrete implementation plan for the project has been formulated, the book framework and core chapter contents have been clarified, and experts in relevant fields of cooperation have been invited.

Submitted by Yongzhong Wang

2021 Smart Learning Environment White Paper

By 31 March, the summary version of the report (in the form of a PowerPoint) had been revised and improved to 88 pages, and the first draft of the overall report was completed at nearly 10,000 words, and the publication of the book was communicated with the Social Science Literature Press and the first "paper validation" was conducted before publication. 。

Submitted by Yanli Jiao

SLI-ALECSO Smart Learning Joint Lab

In March, the coding analysis of a total of 11 textbooks from four countries for the International Comparative Textbook Project was completed and the results were written up. The proofreading of the translation of the Egyptian 9th grade science textbooks has been almost completed and the revision of the visual effects of the textbooks is in progress; the research project on Arab education technology enterprises has revised the list of 180 Arab education technology enterprises, which covers 22 Arab countries; in terms of laboratory construction, members were recruited to carry out the work of designing the website of the laboratory, and the work of designing the logo of the laboratory has been and the lab's website design is nearing completion.

Submitted by Tingwen Chang

Smart Campus Construction Project in Wuhou District, Chengdu

The project was launched in October 2021. In order to support the construction of a smart education demonstration zone in Wuhou District, Chengdu, the project team participated in the implementation of the Wuhou Smart Campus Pilot School Project and supported the Longjiang Road Primary School in its smart campus construction consultation. On 11 March, the project team supported the school in organising teacher information technology capacity enhancement and training activities. According to the school's teacher development needs, the project team confirmed with the school's smart campus construction team the research framework for the "digital portrait" of students and launched the research.

Submitted by Yongzhong Wang

Book&Articles

Research on Design Literacy of Middle school students: Elements, Framework and Evaluation

Chen Peng, Huang Ronghuai

Abstract: In the current environment of increasing attention to innovation, design literacy is the inevitable trend of lifelong development of modern citizens. The research adopts the literature analysis to construct the theoretical framework of design literacy, the Delphi method to collect literacy elements, and the scale compilation method for verification. A second-order three-factor model of design literacy of middle school students was constructed based on the exploratory factor analysis, confirmatory factor analysis and validity test of the survey data of 2187 middle school students in Beijing. The model involves six elements: design consciousness, design interest, design knowledge method, design expression ability, creative materialization ability and design practice ability. Among them, design awareness and design interest can stimulate and maintain other elements; design knowledge and methods are the basic elements in the generative elements of design literacy; design expression ability, creative materialization ability and design practice ability are the ability elements of design, and promote the Completion of design practice.

The changing landscape of mobile learning pedagogy: A systematic literature review

Tlili, Ahmed; Padilla-Zea, N; Juan Garzon; Yiping, Wang ; Kinshuk, K; Daniel, Burgos

Abstract: This study conducts a systematic review of 165 empirical studies on mobile learning to investigate the changing landscape of mobile learning pedagogy. The findings reveal that, despite the ubiquity and flexibility of mobile technologies, most mobile learning studies were conducted in formal settings. The findings also reveal that game-based learning and collaborative learning were the most frequently used pedagogical approaches. Furthermore, redefinition is the most frequently used pedagogical functionality of technology in mobile learning, based on the Substitution Augmentation Modification Redefinition (SAMR) model. The findings of this systematic literature review could be beneficial to both researchers and practitioners in highlighting how mobile learning is designed and implemented, and what gaps should be focused on to enhance pedagogical experiences on mobile devices and thus achieve better mobile learning outcomes.

Influence of Online Merging Offline Method on University Students' Active Learning Through Learning Satisfaction

Yu Huiju; Wang Shaofeng; Li Jiaping; Shi Gaojun; Yang Junfeng

Abstract: Combined with learning satisfaction and Technology Acceptance Model (TAM), this paper proposes an Online Active Learning (OAL) Model to predict the influencing factors of college students' active learning behavior and then analyzes the differences between OMO model and pure online model by multi-group analysis (MGA) based on the model. The designed questionnaire was distributed, and a total of 498 valid questionnaires were collected. Using SmartPLS to analyze partial least squares structural equation modeling (PLS-SEM) and MGA, it is found that: (1) there are differences in the influencing factors of active learning between OMO and pure online model; the moderating effect of learning complaint in OMO mode is not established, and social isolation and age does not affect active learning in OMO mode; (2) learning quality, perceived ease of use, expectation, perceived usefulness, and social isolation indirectly affect active learning through learning satisfaction in both OMO model and pure online model; (3) learning satisfaction is an important mediating variable affecting active learning; and (4) learning complaints will negatively regulate the relationship between learning satisfaction and active learning only in pure online model.

Game-Based Learning for Learners With Disabilities—What Is Next? A Systematic Literature Review From the Activity Theory Perspective

Tlili Ahmed; Denden Mouna; Duan Anqi; Padilla Zea Natalia; Huang Ronghuai; Sun Tianyue; Burgos Daniel

Abstract: A systematic literature review using the Activity Theory (AT) was conducted to analyse studies about game-based learning for learners with disabilities. Content analysis of 96 studies reported relevant information with respect to each activity component—(a) subject (learners with disabilities), (b) technology (game-based learning applications), (c) object (target skills or behaviours), (d) rules (implementation procedure and performance measures), (e) community (learners with disabilities, special education professionals, and parents), (f) division of labour (among learners, professionals, and parents) and (g) outcome (performance of target skills or behaviours). Furthermore, this study identified existing gaps from the reviewed studies, including occasional lack of parental engagement, difficulty of standardising performance measures due to the heterogeneity of learner profiles and contradictions (e.g., opposing views among experts on the role of educational games in social interactions). The study concluded that both general and domain-specific guidelines should be created for each disability category proposed in this review to assist practitioners who wish to use game-based learning with learners with disabilities.

Temporal perspective on the gender-related differences in online learning behaviour

Wang Hunahuan; Ahmed Tlili; Lamsa, Joni; Cai Zhenyu; Zhong, Xiaoyu; Huang Ronghuai

Abstract: This study aimed at investigating the roles of gender in online learning behaviours by analyzing the gender-related differences of students' online learning behavioural patterns. The results indicated no significant difference in the counts of occurrence of online single learning behaviours between female and male students. However, differences were observed in online learning behaviour patterns and how the online learning activities were performed over time. Females were more active in learning behaviours associated with achievement reports and peer list viewing. They tended to view their achievement reports before starting the main course learning activities, indicating that female students might be achievement-oriented. The findings provide further insights from a temporal perspective about how gender is associated with online learning. Implications on designing personalized online learning interventions based on considering gender-related differences are also discussed.

Are we there yet? A systematic literature review of Open Educational Resources in Africa: A combined content and bibliometric analysis.

Tlili, Ahmed; Altinay, Fahriye; Huang, Ronghuai; Altinay, Zehra; Olivier, Jako; Mishra, Sanjaya; Jemni, Mohamed; Burgos, Daniel

Abstract: This paper presents a systematic literature review to explore trends, themes, and patterns in this emerging area of study, using content and bibliometric analysis. Findings indicated three major strands of OER research in Africa: (1) OER adoption is only limited to specific African countries, calling for more research and collaboration between African countries in this field to ensure educational equity; (2) most of the OER initiatives in Africa have focused on the creation process and neglected other important perspectives, such as dissemination and open educational practices (OEP) using OER; and (3) on top of the typical challenges for OER adoption (e.g., infrastructure), other personal challenges were identified within the African context, including culture, language, and personality. The findings of this study suggest that more initiatives and cross-collaborations with African and non-African countries in the field of OER are needed to facilitate OER adoption in the region. Additionally, it is suggested that researchers and practitioners should consider individual differences, such as language, personality and culture, when promoting and designing OER for different African countries.

Pedagogical Applications, Prospects, and Challenges of Blended Learning in Chinese Higher Education: A Systematic Review

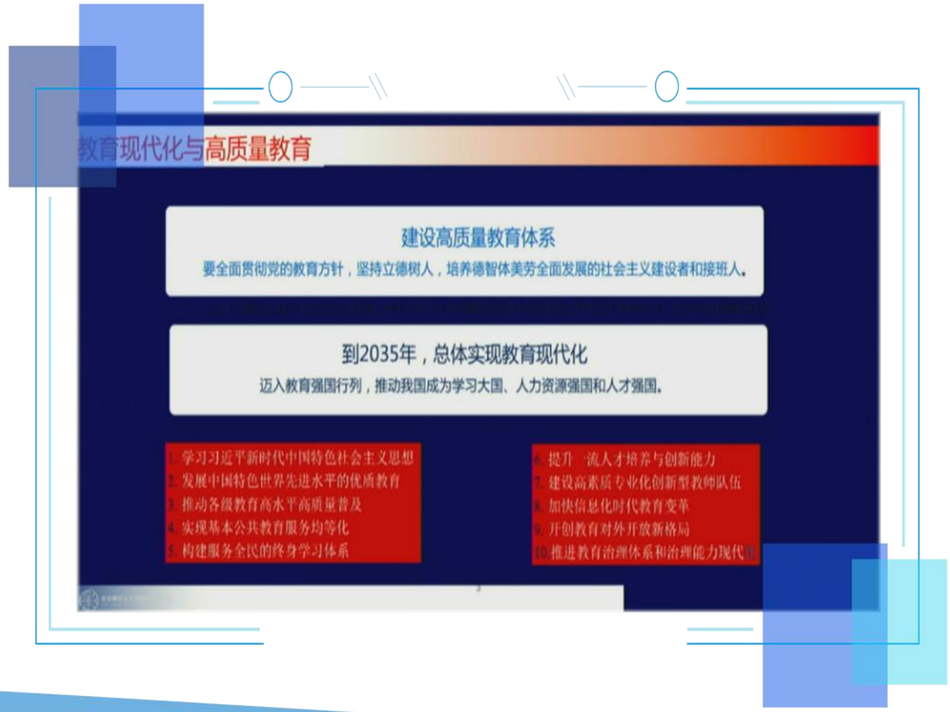
Ashraf Muhammad Azeem; Mollah Shorif; Perveen Shahnaz; Shabnam Nadia; Nahar Lizoon

Abstract: In recent years, blended learning (BL) has grown to occupy an important space in Chinese educational practice. Policymakers have developed many application strategies and platforms and are continuing to develop BL for future use. In order to apply BL in practice, key stakeholders have been using different learning management systems (LMSs), digital platforms, games, hybrid courses, and various forms of social media to create a framework for BL. This study asserts that many visible opportunities have emerged in Chinese higher education through the applications of BL. The advantages of BL are that it fosters stronger academic achievement, student engagement, and cognitive engagement and understanding as well as flexible and quick communication skills, faster interaction skills, technical skills, and adaptability to ever-changing educational practices. On the other hand, BL has brought about some pedagogical and technical difficulties for both learners and practitioners. This study found that most BL courses are not as effective as they could be because they do not have a strong pedagogical framework. Moreover, BL suffers from the technical incompetence of teachers and students, the inefficiency of LMSs, and the unavailability of required resources, such as certain devices and the Internet. Some higher education institutions have become pioneers in Chinese educational practice and been able to successfully adopt BL frameworks and integrate Moodle as well as other platforms and techniques. However, many other institutions' attempts to adopt BL approaches have not been as effective. In order to better understand how and in what ways BL is being integrated into the educational system, this study overviews the current situation and discusses the strengths and weaknesses of BL in Chinese higher education.

Cooperation and Communication

Dean Ronghuai Huang: Analysis of the Development Trend of Education Informatization in China

At the 30th Anniversary of China Educational Technology Association and Education Informatization Conference, President Huang delivered a keynote speech entitled "Analysis of the Development Trend of Education Informatization in China - and the Four Dimensions of Technology Integration into Education". Starting from the historical intersection of education and technology, President Huang discussed the historical proposition of technology-enabled education and the key issues of technology-led education transformation.



Prof. Guangju Chen: Metaverse Learning enables effective immersion learning at anytime and anywhere

Recently, at the "2022 Summit Dialogue on Culture and Tourism Industry in the era of Metaverse", Prof. Guangju Chen, Vice President of the Alumni Association of BNU and Vice President of the Teacher Education Branch of the Chinese Higher Education Association, gave a speech on "Metaverse Integration Breaking Through the Limitations of Traditional Education". Prof. Chen shared his views on the application of the education metaverse, the transformation of the education patterns and the conversion of teachers' roles.

Exclusive Interview

Yiping Wang
Research Assistant
Smart Learning Institute, Beijing
Normal University

Q **Hello Ms. Wang, as a new staff of the Institute, can you tell us more about your feelings since you joined?**

A My team is the SLI-ALECSO Joint Arab Laboratory led by Dr Ahmed Tlili. I joined the Institute in April last year and have been working there for almost a year now. I am honored to be able to share some of my experiences at the Institute.

I found the Institute to be a fast-paced and dynamic institution. I have seen several teams working on different projects at the same time, which is intense but well organised. I am very happy to be working in such a big institute as a new employee, where different projects require different skills and I am learning a lot.

Our lab is a small team and everyone is a multi-faceted person. I have positioned myself as both a researcher and a project manager. As a researcher, the lab's cutting-edge exploratory work satisfies my curiosity and hones my execution skills, and it is very fulfilling to witness an idea take root, take root and ultimately impact more people. As a project manager, I have learnt to work efficiently and collaboratively with different team members and to work towards the same goal. Over the past year, I have learnt to translate between two different roles and adapt myself to the demands of different work tasks.

Q **Can you tell us about the process of completing the Arab Education Development Report project, which was completed last year thanks to your strong facilitation?**

A I have led the completion of this project over the past year. It is a very large project and my team has produced a 93-page, 20,000-word report in English, covering primary, secondary and tertiary education in 22 Arab countries and regions. The report covers education equity, education finance and education informatics, and it is a comprehensive account of the development of education in the Arab region, which is not common to see in the world.

I feel that to be able to complete such a piece of work, one must firstly believe in itself, even with no prior experience in writing similar reports. He/she must believe in his or her past academic training and academic taste, and in the ability to interpret and control data. When faced with a challenging task, we need to believe that the task can be solved before we can act to solve it. Secondly, the ability to learn quickly is essential. It is impossible to be familiar with so many topics, so it is particularly important to read up on less familiar topics to learn as much information as possible quickly and to make your understanding more professional. Finally, it is important not to give up when you encounter difficulties. During the process of writing the report, I encountered problems with the quality of the data, and I also encountered problems with the design of the report being interrupted when the designer left. I could have turned a blind eye to these problems and sacrificed the quality of the report, but in my view, we must be responsible to the reader and do our best to ensure that the content of the report is scientifically accurate.

Q **What other different types of work have you been involved in since you started your career? How about your experience of these tasks?**

A After the report was completed, I had launched a training session for the team writing the Southeast Asia Education IT report, detailing the methodology and experience of report writing. I have always believed that individual knowledge and skills should be maximised within a team in order to facilitate the rapid development and growth of team members, which is particularly important for a research-based institution.