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Review of the 2021 ChinaCALL conference

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Abstract: This paper aims to provide an overview of the 2021 ChinaCALL conference. The topics range from the traditional ones of teaching, learning and assessment to the emerging fields of intelligent computer-assisted language learning (iCALL), conversational agents and language development, the reconceptualisation of teacher digital literacy, reflections upon perfunctory gamification in language learning and particularly pedagogy in the post-pandemic era. In addition, the ability of technology to facilitate language education is explored, along with its potential to foster teacher and learner well-being.

Keywords: ChinaCALL; educational technology; innovation; well-being

1 General introduction to the 2021 ChinaCALL conference

The rapid development of new technologies is transforming the landscape of language education theories and practices. As a research community, the China Association for Computer-Assisted Language Learning (ChinaCALL, www.chinacall.org.cn) hosted the 2021 ChinaCALL conference in collaboration with the Institute of Online Education/Artificial Intelligence and the Human Languages Laboratory of the Beijing Foreign Studies University (BFSU), the College of Foreign Languages of the Nanjing University of Aeronautics and Astronautics and the editorial office of the *Journal of China Computer-Assisted Language Learning*, on 16–17th October 2021.

The aim of the conference was to share knowledge, skills and ideas about the integration of technology and language education in the form of keynote speeches, individual presentations, a symposium on innovating CALL technologies and a colloquium on CALL's future challenges and opportunities. The overarching theme of the conference was "Technology and Well-being in Education". As a proactive

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response to the COVID-19 pandemic, the theme echoes the idea of well-being at the heart of education in *Innovating Pedagogy 2021* (Kukulska-Hulme et al., 2021). The conference addressed pedagogical innovations and learners' well-being in the aspects of language teaching, learning and assessment. Special emphasis was placed on pedagogical challenges and responsibilities during the pandemic as well as in the post-pandemic era.

2 Keynote speeches and individual presentations

The conference consisted of nine keynote speeches and 43 individual presentations. The topics ranged from traditional aspects of CALL (e.g., blended language teaching and learning) to the emerging trend of iCALL, which differs from the traditional paradigm of CALL in that it attempts to incorporate artificial intelligence (AI) technology into CALL design and implementation.

2.1 iCALL: a booming strand of CALL research

In recent years, iCALL has gone from using technology to support language learning to integrating the learning of influential factors with emerging techniques for more adaptive language services (Ai, 2017). In this conference, Professor Gu Yueguo from BFSU delivered a keynote speech entitled, "iCALL: Making us smart or dumb?" Gu presented two essential messages: 1) traditional CALL is destined to move towards iCALL, that is, AI-supported CALL; 2) iCALL must abide by AI ethics, that is, fundamentally making humans smarter, not more stupid. According to Gu, there are at least three variants of iCALL in the literature: 1) intelligent tutoring systems (ITS); 2) artificial intelligence in education (AI-ED, AIED); and 3) parser-based CALL. He also introduced six universal laws that could ensure the smartness of iCALL programmes: 1) the law of motivation; 2) the law of internalisation; 3) the law of eraseability; 4) the law of irreplaceability; 5) the law of process; and 6) the law of practice. The iCALL programmes that are designed and implemented in accordance with the six laws will make us smart, whereas those iCALL programmes that violate the six laws will make us less smart. As Gu (2021) poses the question of whether there will be any human intelligence left in AI-assisted learning, his keynote speech will continue to keep us thinking about this issue, which is an open-ended question worth exploring in future research and practice.

Following this trend, several other keynote speakers presented talks on relevant topics, for example, linguistic research with AI. Professor Zong Chengqing from the Chinese Academy of Sciences introduced human language technology

(HLT) studies with AI. With the rapid development of AI-related technologies, HLT has received a lot of attention. The research methods on HLT have undergone disruptive changes. Meanwhile, the performance of HLT has been significantly improved, and the technology has been widely used in various fields of human society. Therefore, we need to reconsider the somewhat overlapping sub-fields of natural language understanding (NLU), natural language processing (NLP), computational linguistics (CL) and Chinese information processing (CIP), etc. The key and critical challenges and bottlenecks include linguistic ambiguity, unpredictable language phenomena, inadequacy of linguistic data, complexity of knowledge presentation and computing and coordination among multi-modal and multiple sources of linguistic data. Professor Li Zuowen from BFSU shared his thinking and understanding of iCALL-related discipline construction. To meet the needs of technological innovations in the new era, it is of utmost importance that an interdisciplinary Science of Language Intelligence (LI) is set up in universities and colleges.

2.2 Conversational agents and language development

The keynote speech, "Conversational agents and language development: A new frontier in children's learning" by Professor Mark Warschauer from the University of California, Irvine, discussed the relationship between AI-driven conversational agents and children's language development. He explained in detail how AI-driven conversational agents, such as Siri or Google Assistant, can provide opportunities for social interaction that contribute to children's language learning. He introduced two studies involving the use of conversational agents with the findings showing that children can learn more effectively when interacting with a conversational agent. This keynote speech showed the feasibility and promise of using conversational agents in language teaching and learning.

2.3 Teacher digital literacy

The keynote speech by Professor Wang Haixiao from Nanjing University called for a reconsideration of teacher digital literacy, that is, new literacies of skills, strategies, dispositions and social practices that are required by new technologies for information and communication (Leu et al., 2007). Teacher digital literacy not only includes knowledge, skills and attitudes, but also takes into consideration the formal and informal learning contexts, communicating, socialising and collaborating enabled by emerging technologies. Correspondingly, we need to consider

the above aspects of new literacies in the evaluation of teacher digital literacy in the new context of the *College English Teaching Guidelines*, a nationwide curriculum standard implemented by the Ministry of Education of the People's Republic of China to improve the quality of college English teaching and learning.

The keynote speech by Dr Ma Qing from The Education University of Hong Kong was entitled, "From corpus literacy to corpus-based language pedagogy: Effective integration of corpora into classroom teaching". According to Dr Ma, language teachers generally appreciate the pedagogical potential of corpus, but rarely use it in classroom teaching (Ma, Tang, & Lin, 2021), but it is an essential part of technological pedagogical content knowledge (Mishra & Koehler, 2006). A key concept regarding corpus-based teacher training is corpus literacy (CL). Another key concept, largely ignored by researchers, is corpus-based language pedagogy (CBLP), which is defined as the ability to integrate corpus linguistics technology into classroom language pedagogy to facilitate language teaching. Based on the differentiation between CL and CBLP, Dr Ma presented two relevant studies. In Study 1, a new Corpus Technology Acceptance and Use (CTAU) model was introduced based on the Technology Acceptance Model (TAM). Furthermore, the theoretical model was empirically tested with 697 English teachers to determine the factors (e.g., system accessibility, subjective norm, prior experience, self-efficacies) that influence English teachers' perceptions of usefulness and ease of use of corpus technology, which will in turn affect their intention to use it, and its actual uses for learning or teaching. Study 2 adopted a case study approach and investigated two English teachers' engagement in acquiring CBLP and the implementation and evaluation of their corpus-based classroom teaching.

2.4 Perfunctory gamification in language learning

Recently, gamification has increased in popularity, as was notably visible in apps for language learning and online courses characterised, for example, by video games. Dr Marcin Opacki, from the University of Warsaw, delivered a keynote speech entitled, "Perfunctory gamification in the world of second language learning". According to his talk, gamification could bring learners cognitive benefits by linking their knowledge with real tasks, which is important in second language learning. Moreover, games establish a learning loop that involves anticipation, challenge and reward. This loop could continuously promote learners' learning by delivering different kinds of learning activities. To better clarify this issue, he introduced some game-based language learning apps and their designs in realising the perfunctory gamification. Thereafter he summarised the limitations and future trends of perfunctory gamification. Some apps or course

designs could be considered as "perfunctory" due to the limiting of gamification features to only an easily implementable set of activities, for example, trophy achievements. However, features that offer meaningful learning content are ignored due to budgetary, programming or scheduling constraints. Moreover, the means of designing a gamified app for narrow and deep gamers and their incorporation into second language learning components should be investigated. Finally, this talk called for the consideration of currently available research in the field to provide tentative solutions.

2.5 Pedagogy in the post-pandemic era

The conference was held during a time of challenges, due to the outbreak of the COVID-19 pandemic, and therefore critical evaluations of pedagogy were being paid much attention. Dr Elena Errico from the University of Genoa, Italy, introduced their experience of using innovative learning technologies and remote interpreting technologies in the Translation & Interpreting MA programme. A computer-assisted ad hoc interpreting platform was adopted, along with live streaming classroom software, to support the interpreting course. It was proved that the effectiveness of the practice and this exploration could provide enlightenment for remote teaching in the post-pandemic era owning to improved technology and the comparatively low costs of such pedagogy.

Professor Yu Xinjie from Tsinghua University clarified several issues with blended learning, including motivation stimulation, learning burden reduction, learning efficiency improvement and learning designs. In his presentation, he summarised the main reason for the low efficiency of blended learning to be the lack of "learner-centred" strategy and rewarding design. Thereafter, he introduced a method to design and implement blended learning based on the concept of "learner-centredness". During this process, teachers should integrate learners' "humanity" into the learning content. Moreover, learning strategies should be used properly. For example, practices could be used in conjunction with rewards. Finally, he stressed five new senses in learning design, which are the senses of freshness, crisis, thrill, fulfilment and glory.

Apart from the keynote speeches, some other studies also contributed to pedagogy innovation in the post-pandemic era. For example, e-Tandem language learning enables learners from different countries to collaborate and fulfil language learning tasks through the internet (Tang et al., 2021). In addition, some researchers have begun to involve social media and short videos in language teaching and learning. These methods could motivate learners and promote their learning efficiency.

2.6 Teaching and learning resources development

Teaching and learning resource development, with the help of technology, has been much investigated at the primary, secondary and tertiary levels of education. A specific case from the conference proved that the AI-assisted practice of school-based English supplementary reading resources in senior high schools could provide teachers and students with apps containing high-quality reading resources, ease teachers' burden in preparing reading materials and support an online-merge-offline model of students' reading activity (Zhang & Wang, 2021).

Another typical instance of teaching and learning resource construction is the design of language massive open online courses (MOOCs). The rapid rise and continuous proliferation of foreign language MOOCs in China have drawn researchers' attention to the theoretical foundations, research topics and methods in relevant studies. Relevant topics concerning MOOCs have ranged from teaching models and their effects, the construction and application of MOOCs, curriculum design and quality assessment to the professional development of teachers, learner factors and testing and assessment.

2.7 Technology-supported language testing and assessment

The use of technology in language testing and assessment is potentially transformative through the use of automatic evaluation platforms, not only for high-stakes standardised testing but also lower-stakes classroom assessment (Zhang, 2021). A specific case from the conference revealed a technology-supported French dictation platform featuring the automated evaluation of learners' diction performance, immediate feedback and retrieval from the database for systematic error analysis. However, in this context, the ethical issues regarding educational data, such as informed consent and protection of privacy, cannot be neglected. Among the individual presentations, only one focused on a bibliometric analysis of ethical issues regarding technology-enhanced education, which suggested a low level of interest in this aspect. We thus suggest that we need to recognise the importance and value of engaging with the ethics of educational data and learning analytics (Holmes et al., 2021).

Overall, the conference covered a wide range of issues concerning technology-enhanced language teaching, learning and assessment, with an obvious shift from traditional CALL to iCALL. However, issues of learner agency and teacher identity still need to be further expanded and deepened to gain a better understanding of the complex and dynamic interaction between individuals and technology-enhanced educational contexts. Furthermore, ethical issues need to be considered

to ensure the appropriate analysis and use of educational data, including informed consent, data privacy, biased assumptions and transparency.

3 Symposium and colloquium

The conference ended with a symposium on innovating CALL technologies and a colloquium on CALL's future challenges and opportunities. Specifically, the symposium invited three speakers from business enterprises, who introduced their practices in using innovating technologies to support language learning, including adaptive language teaching and learning, teaching reform with emerging technologies and technology-enhanced writing. These practices promote the application of CALL theories in specific scenarios and could provide enlightenment for CALL researchers.

The colloquium involved six speakers (Professors Gu Yueguo, Hu Jiasheng, Wang Haixiao, Li Zuowen, Yang Yue and Pan Guozhen) and was hosted by Professor Tang Jinlan from BFSU. The colloquium focused on CALL's future challenges and opportunities in the new era. From the perspective of CALL theories, CALL is undergoing a great change brought about by AI techniques and iCALL is becoming a trend. In practice, iCALL involves some emerging technologies to facilitate the construction of the learning environment, such as big data, knowledge graphs, machine learning and deep learning, virtual reality and the Internet of Things (IoT), etc. These technologies benefit both instructors and learners by providing an authentic and immersive learning environment, multi-modal learning design, adaptive learning service and data-driven learning management.

From the abovementioned aspects, technology benefits education, for example, by providing an adaptive learning service (Troussas et al., 2019) and reducing instructors' workloads and improving students' learning efficiency (Saricaoglu, 2019). We can see that these benefits stem from the nature of technology. From the nature of language learning, the speakers also emphasised learners' personalities and self-development. It was proposed that well-being is an important factor to consider in the learning process. The speakers highlighted the learner as the agent of learning. Therefore, technology-enhanced learning needs to consider how to cultivate genuine learner agency. More importantly, as AI-empowered education becomes increasingly influential, we should think about how it contributes to the development of learner perception, emotion, feeling, cognition and well-being. While AI has the potential to educate humans, there is a need to shift our focus from cold technology to warm humanity (Yang et al., 2021). Doing so will help achieve true AI empowerment for language education, particularly in prioritising learners' whole-person growth.

4 Conclusion

The conference lasted for two days and has achieved a far-reaching impact in the field. It attracted the attention of about 35,000 audience members in the live-streaming platforms and around 142,000 hits on the social media of the micro-blog in China. The 2022 ChinaCALL conference is scheduled to be held in the city of Xi'an, the capital of Shaanxi province in China, on 15–16th October 2022, and it will be themed "Emerging Technologies and Language Education". We hope the conferences will inform future innovations.

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Bionotes

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