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Bridging the gap between research and pedagogy: an introduction

Technology-enhanced teaching of Chinese as a Foreign Language (CFL)

<https://doi.org/10.1515/jccall-2023-0017>

Published online August 2, 2023

1 Why this special issue?

In the last twenty years or so, we have seen the rapid worldwide development of teaching Chinese as a foreign language (CFL) (Jiang, 2020; Liu, 2022; Zhang & Gao, 2021), with CFL establishing itself as an important branch of language education. Parallel to this development is the accelerating advancement of digital technology and how it influences our lives and society, including language education. These changes have also impacted on Computer-Assisted Language Learning (CALL) which has evolved into an international discipline. We have now reached the stage where CALL is “integrated” and “normalised”: “the stage when the technology becomes invisible, embedded in everyday practice” (Bax, 2003, p. 23).

The last sixteen-months of editing this special issue seems to perfectly reflect the extent to which technology has been embedded in CFL teaching and CFL teachers’ lives. When we first called for papers in February 2022, the social restrictions caused by the COVID-19 pandemic were not fully lifted. Every CFL teacher had experienced “emergency remote teaching”, a term coined by Hodges et al. (2020), from early 2020 when all teaching was forced to move to online, and some of these teachers were still teaching entirely online or with some online elements in early 2022. During this period, CFL teachers personally encountered CALL almost on a daily basis, regardless of their preferences and experiences. They had to take on the challenges as many of them had not been trained or did not have the right resources. In a positive sense, one may argue that the use of technology in teaching and learning CFL was accelerated due to the social restrictions during the COVID-19 pandemic (Zhang, 2021). As a

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result, new teaching practices have been born which has had significant pedagogical implications.

In the meantime, technology has moved on. Thus in late 2022, OpenAI launched ChatGPT, an artificial intelligence (AI) chatbot which is based on the company's Generative Pre-trained Transformer (GPT) series of large language models. As this special issue is approaching its final editing stage in the spring of 2023, ChatGPT has become the latest technological development arousing teachers' excitement as well as anxiety. Language educators cannot help but (re-)think that their relationship with technology is now at a critical point. How can language educators take charge of the development, engage with emerging digital technologies and prepare for the future, cognisant of the pace of technological development?

Against the backdrop of the rapid development of CFL and technology advancement, this special issue addresses the above questions. It explores and showcases innovative approaches, research findings, and practical applications in the field of technology-enhanced teaching of CFL. The next section of this Introduction first summarizes the articles contained within this special issue. Secondly, it discusses the extent to which this special issue bridges the gap between research and pedagogy at the intersection of CALL and CFL. Finally, it concludes with the potential impact of these articles in terms of their knowledge contribution to the field.

2 What's in this special issue?

This special issue consists of two practice-oriented papers, five research papers, one scope review, and one book review.

2.1 Two practice-oriented papers

In an attempt to increase accessibility for language practitioners, which is the latest feature of JCCALL, we include two valuable practice-oriented papers. They are distinct from the research papers, in that their authors focus on implementing a theoretical concept or framework in their teaching context and they contain practical information and findings that have significance and salience for comparable teaching contexts. The relevance and benefits of the theoretical framework are discussed before details regarding the adaptation process and practicalities are presented. The authors share their reflections in lieu of a conventional research investigation. "Reflection is both a research methodology as well as a good teaching and learning practice" (Hubbard, 2022, p. 29). Including such practice-oriented papers is one way to bridge research and practice.

Thus Song and Kao (2023) delineate how to improve online learner motivation utilising the attention, relevance, confidence, and satisfaction (ARCS) model and Tactics Checklist (Keller, 2010). They meticulously detail the various steps taken during the design and delivery of the online CFL courses to improve student attention, confidence and satisfaction by ensuring the courses were relevant to learners. This paper has the potential to stimulate further research in the field of online course design and learner motivation, for example, how best to use Keller's Tactics Checklist (2010, pp. 287–291) to identify areas for improvement.

Paul et al. (2023) discuss the design of online CFL learning activities from an ecological psychology perspective. They focus specifically on perception and action, intention and attention, meaning-making and values-realizing. Paul et al. also provide both low-technology and high-technology activity plans to exemplify how these three dimensions can be woven into online CFL learning.

Indeed, many researchers active in language education have also described the digital/online language learning environment as an eco-system (e.g. Hampel, 2019; Kramersch, 2002; vanLier, 1998). It is helpful to perceive this technology-mediated learning space as a dynamic eco-system in which we language educators can take multiple roles appropriate to our micro-context and in tune with changes to be productive.

2.2 Five research papers

After the practice-oriented papers the special issue includes five research articles. In Wang's article (2023), a chronotope framework, developed by literary scholar Bakhtin (1981) is adopted and expanded by educational researchers like Ritella (2018), to explain the space-time affordances of technology in second language pedagogy. The term "choronotope" comes from Greek words *χρόνος*, meaning "time", and *τόπος*, meaning "space". While Bakhtin used this concept to study the space-time relationships in literary genres, contemporary educational researchers have adopted it to examine different relationships and roles in educational settings. Wang draws on an example of previous research on instructional design using the Chinese mobile app WeChat to facilitate the learning of business Chinese at a European university (Wang & Wu, 2020) to make a case for using the concept of "chronotope". Using this time-space lens, Wang illustrates how mobile technology, when integrated with task-based learning, can drastically expand the learning mobility and opportunities when teaching CFL is no longer confined by the physical classroom.

While Wang's paper looks at technical affordance temporally and spatially for designing CFL tasks, Cook and her colleagues (2023) in Australia evaluate the effects of flipped learning in their project on transferring an entire English-Chinese

translation course online. Different from typical “emergency remote teaching” (Chen, 2021; Hodges et al., 2020) due to the COVID-19 pandemic, their project evidences a permanent and strategic shift from traditional face-to-face delivery to online flipped learning. Cook et al. first report their course transformation using the ADDIE learning design model (Shibley et al., 2011) to ensure three dimensions of presence: social, teaching and cognitive in their online course. Adopting mixed methods, they analyse students’ engagement in this flipped learning course. Findings from their study confirm that “it is possible to maintain high levels of student satisfaction by ensuring a clearly structured course design in an online mode with interactive and engaging course materials” (Cook et al., 2023, p. 1). Their paper is of particular interest for language educators who are considering to (re-)design courses in an online or blended format.

Also in the area of online learning design for distance CFL learners, Pleines and Kan (2023) conduct a study to investigate potential learning benefits from watching tutorial recordings produced by a UK-based, distance learning university. Using an online survey and stimulated recall interviews, they investigate learner perspective, the elements learners focused upon while watching, and their perceived benefits of working with recorded tutorials. Findings from this study suggest that in language learning, both direct and indirect interactions contribute to language development. Most importantly, their participants regard the recorded tutorials “as being fundamentally different from other course resources, with the tutor and live learners being perceived as “real” in a way that speakers in other audio materials were not” (Pleines & Kan, 2023, p. 25). Given the fact that so many tutorials were recorded during the COVID-19 pandemic and saved to Cloud storage, this study is pertinent and points to another important theme in CALL – sustainability and reusability.

Yang and Osborne (2023) discuss the adaptation of technology for assessment, more specifically, for assessing learners’ knowledge/skills in Chinese characters. After extensively reviewing both traditional and online language assessment, Yang and Osborne design a C-test and a pseudo-character test for CFL beginners. Based on quantitative data collected from 53 learners, statistical tools are employed to ascertain the validities of these two tests. After thorough statistical analysis, findings indicate that these two new tests have relatively satisfactory reliability and validity. This article also provides practical methods for CFL teachers to develop and validate their own assessments, with increasingly sophisticated technical tools available.

A key aim of language teaching is to prepare learners to communicate effectively and appropriately through the language learnt. However, according to Baker, “much current language teaching theory and practice is based on a simplistic view of communication that fails to match the multilingual and intercultural reality of the majority of second language (L2) use” (2022, Abstract). To address this, more language programmes embed virtual exchange learning in their course design to go beyond

linguistic communicative competence. From a translanguaging perspective, Guo and Xu (2023) examine the relationship between language and culture during a virtual exchange project. Their study is based on a 9-week virtual exchange project between 22 CFL learners in a British university and their partners from a Chinese university. Using a multimodal conversation analysis (MCA) method, online conversations between intercultural interlocutors are investigated. Data reveals how CFL learners navigate through online communication with their partners by employing a range of linguistic, semiotic, and multimodal resources. This study helps to reveal how translanguaging is embodied in virtual exchanges, and to what extent MCA can be applied to reveal the details of online communications.

2.3 Scope review

Next is the scope review by Huang and Moore (2023) on using social robots for language learning, which is timely and cutting-edge given the latest developments in ChatGPT. First, this review explains the technologies behind social robots and the concept of Robot-Assisted Language Learning (RALL). Based on RALL research conducted in East Asia and Europe, it succinctly evaluates the use of social robots from the angles of L2 learners, teachers and technology developers, and it identifies the potentials and challenges for deploying social robots in CFL classrooms. Huang and Moore believe that “teachers can increase their knowledge of RALL and familiarise themselves with this burgeoning technology” (2023, p. 17). They emphasise the importance of this engagement as it is

not only in preparation for future classroom use but also to facilitate participation in the development of RALL (ibid.).

2.4 Book review

Similar thinking is also reflected in the book edited by Liu (2022), a review of which is included in the special issue. Liu’s book specifically collects cases of COVID-19 related emergency remote CFL teaching. Lessons learned from such emergency remote teaching remains valuable and relevant for CFL teachers who are likely explore the use of technology in the future. Wang and Wang (2023) have provided an informative and timely book review of Liu’s edited book.

3 What's special about this special issue?

In terms of direct implications for teaching, language teachers, we can find practical and inspiring ideas for future course design, task design, assessment design and validation, recycling tutorial recordings, as well as online intercultural and language exchanges.

However, the contribution of this special issue extends well beyond these practical suggestions. A key feature of this special issue is that all papers, both research and practice-based, are written by language educators who are student-facing. This means that the authors are primarily interested in pedagogy; and by taking an insider's point of view, they demonstrate, exemplify and examine how technology has been deployed in their unique contexts. This is "practitioner-research" which searches for "local understandings rather than for incontrovertible findings and universalistic theory" (Allwright, 1997, p. 369). Such a research perspective can empower teachers, validating their innovations and observations. It is also more sustainable. "Sustainability is crucial because the adoption of a research perspective (an ongoing concern for understanding) is arguably much more important than the production of one-off research projects" (Allwright, 1997, p. 370). It is our hope that more front-line language educators will take a research perspective in their integration of technology into their daily teaching. This would positively impact teacher development and ultimately, the quality of digitally mediated language learning.

The second feature of this issue is the research paradigm that authors have adopted. Different from a positivist paradigm (e.g., the use of pre-test and post-test, or randomised control trials), the research designs adopted here include a wide range of research methods, appropriate to their contexts. These include innovative approaches such as multimodal conversation analysis, stimulated recall interviews and conceptual frameworks such as chronotope and translanguaging. By mixing qualitative with quantitative methods, researchers record and analyse the learning process in micro detail. Stickler and Hampel suggest that research into technology-enhanced language learning "deserves a shift" away from a narrow positivist approach toward "an exploration of the process of meaning-making" (2019: 16). As demonstrated by the authors in this issue (e.g., Guo & Xu, 2023; Pleines & Kan, 2023; Wang, 2023), technology-mediated language learning is complex and dynamic. It is mediated by multiple factors, such as technical affordance, human-computer, human-human interaction, language competence, as well as cultural learning. Therefore, it is "ill served by an episteme that assumes one-directional cause-and-effect structures or reduces the field of investigation to one or two factors at a time" (Stickler & Hampel, 2019, p. 16). It is pertinent for researchers to continue to record

and observe in detail what learners and teachers do and experience in a technology-mediated environment.

Overall, the findings from the studies in this special issue demonstrate why the technology, even the latest AI like ChatGPT, cannot replace language teachers (at least not in the near future) because technology lacks the contextual understanding of human teachers, which – as these studies show so compellingly – remains crucial in language learning and teaching.

4 Conclusions

The contexts presented in this special issue are varied, ranging from conventional university settings to distance language education, from task design to assessment design to course design. The papers included make it apparent that the traditional division between “inside-classroom” and “outside-classroom” continues to wane, due to the normalisation of online and mobile digital technology (Bax, 2011). For example, both Wang (2023) and Guo and Xu (2023) evidence how technology helps to expand the learning space from limited physical classrooms to unlimited virtual spaces with the help of the digital environments we experience daily.

However, the normalisation of digital technology brings pedagogical considerations to the fore, which pose enormous challenge for the teacher role. Shi and Stickler point out that CFL teachers (like other language teachers) not only need to be confident in using technology, but more importantly, they need to “know how to select the most appropriate ICTs, how to support learners in their use, and that they take into account students’ cognitive (over-)load, metacognitive challenges, social and emotional needs, and group dynamics” (Shi & Stickler, 2019, p. 523). Every paper presented here reiterates this message. That is, instead of being led by the latest technology, the authors (practitioner-researchers) adopt a “pedagogy-driven” approach. In other words, they draw inspiration from past research, and carefully choose technical tools according to individual contexts, design tasks, materials and courses with an appropriate pedagogy and context in mind. The authors further their investigation and enquiry by using varied research tools and obtain in-depth knowledge about their deployment of technology in their own CFL teaching contexts.

Predicting the future is not an easy task. Yet, as teacher-researchers, we are fully aware that deeper understandings concerning the complexity and dynamics of technology-enhanced language learning are acutely required. Further dialogues are needed between research and pedagogy to give us confidence, ease anxiety, avoid us blindly chasing ever-improving technology, and more importantly, empower us to find opportunities in a seemingly uncertain era.

This special issue set out to make a meaningful contribution at the intersection of CALL and CFL. It begins to shine light on the advancements, challenges, and future directions of teaching and research in Chinese as a foreign language; but also in the field of technology-mediated language education in general. In other words, its contribution is not only through communicating thoughts and practices from worldwide CFL experts, but also through encouraging more practitioners to engage in teacher-research, benefitting future language education as a whole.

Acknowledgments: We are grateful for all authors' contribution to this special issue. We would also like to express our gratitude to the following reviewers (names in alphabetical order): Lili Chen, Jun Da, Ben Evans, Regine Hampel, Mirjam Hauck, Karen Littleton, Andrea Lustenberger, Shijuan Liu, Han Luo, Yang Lu, Hélène Pulker, Müge Satar, Prithvi Shrestha, Ursula Stickler, Caroline Tagg, Xiaolong Tang, Elodi Vialleton, Minjie Xing, Xinsheng Zhang, and Haiyong Zhao.

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