International Journal of Education and Development using Information and Communication Technology (IJEDICT), 2020, Vol. 16, Issue 3 (Special Issue), pages 3-5

Guest Editorial: Special Issue of Comparative & International Education Society (CIES) ICT4D Special Interest Group (SIG)

Haijun Kang
Kansas State University, USA

Welcome to Volume 16 Issue 3 of the *International Journal of Education and Development using Information and Communication Technology* (IJEDICT). This special issue highlights selected research studies and field reports from members of the Information and Communication Technology for Development (ICT4D) Special Interest Group (SIG) of the Comparative & International Education Society (CIES).

As a theme-based SIG, ICT4D seeks to foster a community of researchers, educators and practitioners who share a common interest in the use of ICT for human development. We serve as an outlet for members of CIES to collaborate with, learn from, and create bonds with each other by organising conference events in conjunction with annual CIES conferences, sponsoring social and outreach events, and publishing scholarly research and best practices. ICT for development as a field is very broad and encompasses many different disciplines. ICT for development is also interdisciplinary because it overlaps with many other disciplines. The research studies and field reports included in this special issue demonstrate the breadth of the field of ICT for development.

A Bibliometric Analysis of ICT Development at The Comparative & International Education Society (CIES) from 2014 Through 2019. This study is a follow up of Kang's study published in 2014. The purpose is to provide an updated account of how ICT for development has evolved as a key topic and research area at annual CIES conferences. In this study, Haijun Kang uses the bibliometrics research method to analyse ICT-related CIES conference papers from 2014 through 2019 for common development trends, issues, and opportunities. The findings include: 1) ICT for development as a field has developed much stronger presence at CIES in the past five years; 2) Geography-based digital divide remains at annual CIES conferences; 3) Educational institutions and non-governmental organizations (NGOs) continue to be the main players in ICT development at CIES; 4) The omnipresence of ICT in other topic and research areas is evident; and, 5) ICT's interactions with special interest groups (SIGs) and standing committees have doubled. Kang also notes that there has been a steadily increased interest in cross-country comparative ICT studies as well as studying ICT related topics that are not country/region bound. Future research studies are suggested to explore if there is correlation between the countries and regions mostly represented and the key players and forces that drive ICT development at CIES. The opportunity for the ICT community to widely collaborate with colleagues from other fields and disciplines has arrived.

Point, Read, Think, Click: Expanding New Literacies in Kazakhstan and Mongolia. Katelyn Williams argues that one of the most common indicators of a country's development is its literacy rate. However, beyond traditional conceptions of reading, writing, and arithmetic, literacies in the 21st Century require additional skills geared towards the saturated and constantly changing digital environments in which we live. These competencies are not yet universally - or still, in many cases, regionally - defined. In this comparative study, Kate Williams uses secondary desk research to investigate the education systems of two countries - Kazakhstan and Mongolia - to better understand the historical and social contexts in which they have approached ICTs in Education and teacher development. From this view, Williams then outlines different strategies and theoretical frameworks that officials and educators may take to improve teacher instruction and student learning with technology. The resulting recommendations hold the potential to assist any country with redefining national benchmarks, student scorecards, and global literacy indicators; flattening

transmission models and applying digital pedagogy; redesigning in-service for teachers; and doing more to launch blended learning environments.

Local Strategies and Models for Availability and Access to Information and Communication Technologies in a Rural Elementary School in Mexico. Taking a qualitative ethnographic approach, María Guadalupe López-Sandoval and Óscar Enrique Hernández-Razo share the models and strategies that a rural elementary school community in central Mexico developed to keep available, accessible, and in daily use, digital devices and connectivity despite their marginality conditions. This case study is explored from two theoretical perspectives. First, a critical approach to digital inclusion policies in Latin America (Dussel 2014; González 2014) is used to understand how the school community has *translated* digital inclusion policies in a context of marginality to build their own availability models. Second, the access of the school community to ICT is examined under the scope of a literacy access perspective, based on the "literacy as social practice" view (Street 2016, 2013). This perspective is used, in order to understand ICT practices according to discourses and ideology that surround practices, the community and institutional structures that support participation, and the relationships with other people who model and promote ways of using ICT for education in a specific context (Hernández & López 2019; Kalman & Hernández 2018; Warschauer 2003). The authors conclude by noting that the rural school community (principal, teachers, students, and parents) has developed good technology integration strategies and translated digital inclusion programmes into local models of availability and access that support regular ICT use. These local strategies allow the use of economic resources generated by the school, the incorporation of students' and teachers' own devices for school activities, the subcontracting of Internet connectivity, and knowledge sharing among teachers.

Popular Instructional Design Models: Their Theoretical Roots and Cultural Considerations. The digitalization of learning environments is changing the face of education. Developing culturally inclusive learning is receiving more and more attention. Learners from around the world have unprecedented access to online learning spaces in ways that were unthinkable even a few decades ago. Due to the growing diversity among digital learners, online learning spaces are becoming increasingly international and intercultural. To make e-learning offerings effective at meeting the needs of diverse groups of learners requires a better understanding of available instructional design models. In this article, Lina Heaster-Ekholm provides an analysis of seven popular instructional design models (IDMs) and brings to light the underlying epistemologies and theories guiding them. She highlights the fact that these IDMs contain little if any guidance on how to design for a diversity of learners, although a few at least acknowledge the need. While some processes for addressing cultural diversity in e-learning do exist, they mostly fall short. These include processes for retroactively addressing culture once the learning product has already been created, or processes requiring a significant philosophical shift. Heaster-Ekholm recommends that designers closely examine the culturally inclusive approach articulated by Frechette, Layne and Gunawardena (2014). Their list of ten recommendations are not tied to a specific epistemology and can be incorporated into to a variety of IDMs. Their suggestions emphasize the need for designers to articulate their own biases, and recognize how these influence the instructional design processes they undertake.

Education Reform for The Future: A Case Study of Korea. The technology-driven world in which we live holds great promise but has also sparked much public concern as jobs across all industries are increasingly being automated, creating both huge promise and potential peril. In this study, linking to the 4th Industrial Revolution, Euiryeong Jeong shares how the global ICT for development community can help prepare for the future of education. After presenting global frameworks for education models for the future, Euiryeong Jeong provides a review of Korea's education reform based on two major initiatives: The Free Semester Program (FSP) and the SMART Initiative using ICT. Both are new education initiatives focused on promoting ICT skills in schools across Korea. This study analyses the design and implementation of the two education policies based on academic literature review and relevant policy documents, but also highlights critical aspects of

successful implementation, the role of government, and the positive impact of these policies. The lessons drawn from Korea's experiences include: the government gathered diverse stakeholders to develop a shared agenda to align their visions, goals, and strategies to promote skill development in future generations; schools are given the autonomy to provide more tailored education programmes; and, teacher workforce development is key to success. This study further proposes lessons for scaling up of similar practices in other social-cultural settings.

The research studies and field reports included in this special issue indicates that any topics related to ICT for development cannot and should not be studied, examined, and critiqued in isolation. They must be studied within the social-cultural context in which it is situated. We welcome more colleagues from around the globe to join us at annual CIES conferences and to collaborate with members of CIES on ICT related research studies and projects.

Haijun Kang
Guest Editor, IJEDICT
