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## COLUMN: GUEST EDITORS' NOTES

# The AECT Centennial: Origins, Trends, and Implications for the Future of Educational Technology

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The preservation, discussion, and analysis of the history and trends of educational communications and technology are more important than ever. The past has contributed greatly to the evolution of the field today, and many authors have attempted to define the educational technology field (Januszweski & Molenda, 2008 Luppicini, 2005) and capture its history (Reiser, 1987; Saettler, 2004). The trends and issues of today are often similar to the past, and understanding the past provides an opportunity for reflective humility for present and future innovations (Mishra et al., 2009). It is imperative to keep the history of the field at the forefront of innovative explorations in learning and education, to inform such discovery from the voices and works of pioneering scholars, designers, practitioners, and leaders. Educational technology has changed and grown, and experienced paradigm shifts that can have an influence on today and the future.

This year, in 2023, the Association for Educational Communications and Technology celebrates its centennial. During the last 100 years, the field has experienced many events, trends, technologies, contributors, theories, frameworks and more. As we embrace AECT's centennial, we explore how our history informs our current and future practices in educational technology. This special issue focuses on some snippets of the history of the field including systems thinking, models, professional development, technology, pedagogy, and innovation. The manuscripts examine and share historical origins as well as the influence that has for now and the future.

We begin with a recent history, where the authors explore the paths of the field since 2000 such as design-based research, design thinking, and learning analytics. Ramsey and West detail important events and people as well as the rapid flow of ideas and change in educational technology. They note that taking a look at the field in just the 21st century is a view of fast-paced and dramatic changes. The rapid growth of innovation and influential changes seen in the frameworks, technologies, and ideas from this time play a large role in an overall reflection of the last 100 years of the field and the Association for Educational Communications and Technology.

In an article connecting the history of AECT and the United States Air Force (USAF), Garcia and Ozogul detail the use and evolution of the Instructional Systems Development (ISD) model in USAF training. They draw on USAF research and training materials, publications, and inspection reports in conjunction with DAVI and AECT publication to demonstrate the significance of USAF's position as an early and influential contributor to the development of systematic training design. While the paper summarizing the evolution of the educational technology definitions over the years, Ramirez et al. propose rebranding the next generation of definitions to knowledge systems design (KSD) to prepare for the future. They argue for knowledge management to serve a more prominent role to support the transfer of learning. KSD represents the creation of knowledge and transfer of knowledge through a variety of mechanisms that take into account a systems way of approaching instructional design.

Offering another perspective of the historical impact of systems thinking, Murphy and Hung explore the coevolutionary relationship between systems thinking and modeling alongside ever advancing computing power over the last 100 years. The article discusses how the progress of systems thinking and modeling from early understandings to current contributions of assessing meaning through natural language processing has allowed researchers to map the intricacies of complex systems, and thereby provide new methods to address the more complex and pressing problems of today.

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In the same year that AECT is celebrating its centennial, the Association for Media and Technology in Education (AMTEC) in Canada celebrates its 50th anniversary. Janes et al. conducted a series of interviews with individuals who have been heavily involved in cultivating AMTEC to preserve the history of the organization's growth over the years. Their paper provides a closer look into the history of educational technology in Canada.

The term *innovative learning spaces* has been used as an overarching term to describe learning spaces that have been impacted by changes to education and instructional delivery to integrate technology. Khamitova conducted a systematic mapping review to examine research trends associated with innovative learning spaces. This paper explores research that has placed intentional focus on the learning space (i.e., interactive learning spaces, learning studios, and technology-advanced learning environments). Recommendations are offered for how higher education institutions can plan accordingly when designing new spaces to support learning.

Moving to the mathematics classroom, Meeker and Thompson describe the evolutionary change that technologies bring to the classroom. They explain that while technology is often touted as revolutionary, the reality of technological change is slow, and impact is not often noticed for decades. To demonstrate this evolution, the article focuses on the historical use of two types of tools in mathematics education – presentation and calculation. By describing the use of technologies such as the slide rule or projector, Meeker and Thompson show how technologies have had a significant impact on how mathematics is taught in the classroom over time.

Siegle et al. discuss how research on pedagogical agents has shifted over the past 25 years. Their paper explores the history of pedagogical agents emphasizing barriers and opportunities for implementation. The authors offer insights for where they envision the future of pedagogical agents in virtual and mixed reality learning environments. After the last updated record of the AECT archive was published 25 years ago, Clark-Stallkamp and Ames' article offers an updated account of the AECT archives and its holdings. The article uses the formation of the AECT archive in 1951 and subsequent history to demonstrate the importance of the archive's materials to preserving AECT's history. Clark-Stallkamp and Ames then provide research guidance with detailed examples on: how to begin an archival visit; how archives function, and how to research within the archive, specifically related to AECT and the field's history. We are excited to celebrate the collective and individual efforts in how the field has come to be and where it is now, and how the field might move forward as a discipline, informed by the design, research, and professional expertise that have brought it to this point.

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