Handbook of Research on Transformative Digital Content and Learning Technologies

Part of the Advances in Educational Technologies and Instructional Design Book Series

Jared Keengwe (University of North Dakota, USA) and Prince Hcy Bull (North Carolina Central University, USA)

Description:

Technology is constantly evolving and can now aid society with the quest for knowledge in education systems. It is important to integrate the most recent technological advances into curriculums and classrooms, so the learning process can evolve just as technology has done.

The Handbook of Research on Transformative Digital Content and Learning Technologies provides fresh insight into the most recent advancements and issues regarding educational technologies in contemporary classroom environments. Features detailed coverage on a variety of topics, such as mobile technology integration, ICT literacy integration, digital wellness, online group counseling, and distance learning.

Readers:

This publication will appeal to researchers and practitioners who are interested in discovering more about technological integration in education.


Topics Covered:

- Digital Wellness
- Distance Learning
- Educational Advancements
- Hearing Assistance Technology
- Mobile Learning
- Mobile Technology Integration
- Online Learning
- Open Learning

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Chapter 1: Professional Development for Technology Integration into Differentiated Math Instruction
Jackie HeeYoung Kim, Ardryth Foster and Moon-Heum Cho
To make a connection between pedagogy and technology in teaching, this chapter will explore whether or not a professional development design and practice, whose aim is to help teachers use technology for personal purposes, readily translates into the ability to effectively teach and learn with technology.

Chapter 2: Mobile Technology Integration and English Language Learners: A Case Study
Jung Won Hur,
The purpose of this chapter is to report a case study examining the benefits and challenges of iPad use to help ELLs develop language proficiency. Based on the differentiated instruction framework, the author integrated iPads into a grade 4-5 ELL classroom and investigated learning impacts through classroom observations and interviews with the teacher and students.

Chapter 3: Integrating iPads in Middle School Science Instruction: A Case Study
Lana M. Minshew and Janice L. Anderson
This chapter reports on a study to examine how middle grades teachers' integration of one-to-one technology moves beyond drill and practice and using apps as extension activities. With the appropriate support and experience, iPads and other mobile devices can be used for collaborative scientific inquiry moving beyond individual skill practice and assessment appropriations.

Chapter 4: ICT Literacy Integration: Issues and Sample Efforts
Lesley Farmer
This chapter explores the process of developing a systematic and coordinated approach to ICT literacy into the curriculum through a Case Study of one university system. Collaboration within academic domains, with expert partnerships of librarians and instructional designers, can boost ICT literacy and facilitate its effective integration for student learning.

Chapter 5: Reconceptualizing Universal Design for Learning (UDL) as Learning Technology in Non-Formal Education
Laura R. Ficarra and Deborah A. Chapin,
This chapter will offer a novel interpretation of learning technology to include models and frameworks of support, such as Universal Design for Learning (UDL). The recognition, strategic, and affective cognitive networks provide a structure for how differentiation can be operationalized and applied so that access to instruction is maximize while barriers are minimized.

Chapter 6: Digital Wellness: Integrating Wellness in Everyday Life with Digital Content and Learning Technologies
Chadwick Royal, Suzan Wasik, Robert Horne, Levette Dames, and Gwen Newsome
The purpose of this chapter is to present the Digital Wellness Model (Royal, 2014) and provide recommendations for how the model can be implemented by users of technology. Specific strategies for promoting digital wellness are also shared.

Chapter 7: Fully Online Education and Underserved Populations
Rochelle R. Newton
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John K. Thuku, Elizaphan M. Maina, Samson R. Ondigi, and Henry O. Ayot,
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Chapter 9: Opportunity to start strong: Integration of technology in science lessons in the early elementary grades
Dalila Dragnic-Cindric, Elizabeth Barrow, and Janice L. Anderson
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Njoroge P. Kahenya
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Chapter 11: Facilitating Multicultural Student Team Engagement in Higher Education: A Model for Digital Learning Environments
Soo Jeoung Han, Carla Liau-Hing, and Michael Beyerlein
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Chapter 12: Makerspaces: Materializing, Digitizing, and Transforming Learning
Marguerite Koole, Jean-François Dionne, Evan Todd McCoy, and Jordan Epp
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Winfred K. Kithinji and Anne W. Kanga,
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Levette S. Dames, Chadwick Royal, and Kyla M. Sawyer-Kurian
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RukiyeDidem Taylan
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Chapter 16: Integrating Disciplinary Literacy Practices in One-to-One Classrooms
Emily L. Freeman, Alexandra J. Reyes, Dalila Dragnic-Cindric, and Janice L. Anderson
This chapter examines the use of disciplinary literacy in elementary and middle grade science classrooms that participated in a one-to-one iPad initiative. Results of teacher instruction in science disciplinary literacy practices in a one-to-one iPad technology integration, examples of collaborations, and observational data are shared.

Chapter 17: Using Hearing Assistance Technology to Improve School Success for All Children
Diane M. Scott
This chapter will provide information to teachers and administrators about hearing assistance technology that can facilitate classroom learning for typically developing children, second language learners, children who are hearing impaired, and children with normal hearing thresholds but significantly poorer auditory performance, such as children who are diagnosed with auditory processing disorder, autism spectrum disorder, attention-deficit hyperactivity disorder, and language disorder. Teachers and educational audiologists can collaborate on the use of technology to ensure children have access to auditory information in the classroom.

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Bonface Ngiri Ireri, Ruth Diko Wario, Elijah I. Omwenga, Robert Oboko, and Irene M. Mwingiwa
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Chapter 19: Leadership in Global Open, Online and Distance Learning
Ebba Ossiannilsson
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Chapter 20: A Blueprint for Online Licensed Practical Nurse Training
Shani Salifu
This chapter presents a blueprint to train low-income mothers into Licensed Practical Nurses to reduce dependence on public finances and to enhance their self-images (Atkins, 2010). The blueprint explores how these women learn, and the services they need to complete the program.

Jared Keengwe is a Professor of Education in the Department of Teaching and Learning at the University of North Dakota, USA. Prof. Keengwe is the editor-in-chief of two IGI Global Book Series: Advances in Higher Education and Professional Development (AHEPD) and Advances in Early Childhood and K-12 Education (AECKE). He serves on the editorial review board of several international journals and is also the editor-in-chief of two journals: The British Journal of Education, Society and Behavioral Science and The Journal of Education and Learning (EduLearn). Prof. Keengwe has published more than 100 publications in refereed journals, books, book chapters, and conference proceedings. Prof. Keengwe’s work was honored with the 2011 UND McDermott Faculty Award for Excellence in Academic Advising. He was also a recipient of the 2010 North Dakota Spirit Faculty Achievement Award, and the 13th Annual Martin Luther King Jr. Award in recognition of significant contribution in scholarship and service respectively. At the national level, Keengwe was one of the 10 recipients selected to receive the 2010 American Educational Research Association (AERA) Teacher Education Travel Award.

Prince Hycl Bull is a Professor of Education and the Chair of the Curriculum and Instruction Department at the North Carolina Central University, USA. Dr. Bull’s research activities include technology integration with candidates and professional educators, emerging technologies, and technology integration with K-20 faculty and staff. Dr. Bull is a graduate of the University of Sierra Leone, Fourah Bay College, North Carolina Central University and North Carolina State University. Dr. Bull taught at the high school level in Freetown, Sierra Leone, as a special education teacher at Murdoch Development Center for ten years, and later served as School Administrator for eight years. Dr. Bull has extensive knowledge in integrating technology in K-20 education. Dr. Bull’s credentials are North Carolina teaching licenses for Intellectual Disabled (Mild and Severe), Mentor, Curriculum Specialist, Instructional Technologist, School Principal and Exceptional Children’s Director.