

Handbook of Research on Transformative Digital Content and Learning Technologies

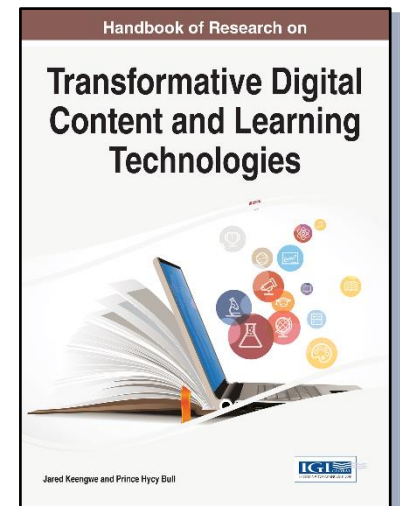
Part of the Advances in Educational Technologies and Instructional Design Book Series

Jared Keengwe (University of North Dakota, USA) and Prince Hycy 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.

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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, Ardyth 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

This chapter examines fully online options as a low cost alternative to on-campus education and specifically offered as an option for underserved populations. However, for some learners, asynchronous learning is sufficient. Further, fully online courses may not benefit underserved populations.

Chapter 8: Enhancing Learner-Centered Instruction through Tutorial Management Using Cloud Computing

John K. Thuku, Elizaphan M. Maina, Samson R. Ondigi, and Henry O. Ayot,

This book chapter discusses how cloud computing technologies can be utilized in education sector and proposes a cloud computing model which can be incorporated in a tutorial class to improve learner-centered teaching pedagogies in a tutorial class.

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

This chapter investigates challenges faced by educators in the early elementary grades as well as opportunities to transform science education in these critical, early years of schooling. While implementations of technology enhanced inquiry-based science lessons in early elementary grades present educators with some unique dilemmas, they also carry a potential for sparking the scientific curiosity of the youngest elementary school learners' and illuminating the years to come.

Chapter 10: The Use of Social Media to Facilitate Real-time eLearning

Njoroge P. Kahenya

This chapter examines a case study on the motivation behind usage of social media as alternative tools to the institution's eLearning program, by online classes' facilitators, at a local private university in Kenya. The case study involved 45 faculties involved in facilitating online classes.

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

This chapter introduces a three-phase model of multicultural online project team development in order to engage students in digital learning environments in higher education. The findings suggested that cultural diversity in teams negatively impacted the process factors, such as communicating, trust building, establishing expectations, intercultural learning, and knowledge sharing.

Chapter 12: Makerspaces: Materializing, Digitizing, and Transforming Learning

Marguerite Koole, Jean-François Dionne, Evan Todd McCoy, and Jordan Epp

This chapter examines the makerspace activity process (MAP) framework that illustrates how makerspace activities—curating, relating, and creating—are intertwined through networking practices. For those educators who find it difficult to integrate within formal curricula and assessment practices, the MAP framework provides a guide for facilitating and assessing learner activity in educational makerspaces.

Chapter 13: Distance Learning in Kenyan Universities: The Relationship between Learners' Characteristics and Academic performance

Winfred K. Kithinji and Anne W. Kanga,

This chapter examines the relationship between learners' characteristics and academic performance. Adopting the triangulation design validating quantitative data model, the predictive power of the following variables was examined: age, gender, entry qualification, region of residence, employment status, marital status, academic self-concept, and study strategies. Findings show that learner characteristics were positively related to academic performance.

Chapter 14: Active Student Engagement Through the Use of WebEx, MindTap, and a Residency Component to Teach a Masters Online Group Counseling Course

Levette S. Dames, Chadwick Royal, and Kyla M. Sawyer-Kurian

This chapter explores the integration of WebEx, MindTap/Coursemate, and a residency component that enhances the delivery of a master's level group counseling online course and by encouraging active engagement of both the students and instructor alike. The development and implementation of the online group course is guided by Bandura's theory.

Chapter 15: Promoting Active Learning in Mathematics Teacher Education: The Flipped Classroom Method and Use of Video Content

Rukiye Didem Taylan

This chapter provides examples of how mathematics teacher educators can promote prospective teachers' active learning and professional growth by bringing together the Flipped Classroom

method with video content on teaching and learning as well as workplace learning opportunities in a pedagogy course. The professional learning of prospective teachers is framed according to the components of the Pedagogical Content Knowledge. Implications for future trends in teacher education are also provided.

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.

Chapter 18: Mobile Learning: Content Format and Packaging for Effective Teaching and Learning in a Learner Centered Pedagogy

Bonface Ngari Ileri, Ruth Diko Wario, Elijah I. Omwenga, Robert Oboko, and Irene M. Mwingirwa

This chapter explores multimedia digital content packaged in the format of video, as the most preferred learning media by the learners. Content formats that were rated high had highest with accessed mean rate above 300 (discussion forums, video clips, and graphics) are also discussed. The study revealed that learning becomes interactive and effective when a video is presented in the style of hypermedia.

Chapter 19: Leadership in Global Open, Online and Distance Learning

Ebba Ossiannilsson

This chapter examines leadership and why the demands of leadership in global open, online, and distance learning have to innovate, change and be rethought. The chapter also examines increased digitization and societal issues, global open online and distance learning, and finally leadership in global open online learning arenas. In conclusion, leaders must embrace and be in the forefront in the areas of teaching, research, governance and society for the transitions to personal global open online learning.

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 Hycy 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.

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