

CIDDL Research and Practice Brief 5: Intersection of Social Justice and Educational Technology in Teacher Preparation



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The CIDDL Center is striving to impact the use of educational technologies into preparation programs, including special education, early intervention, and related services personnel preparation and leadership personnel preparation programs that prepare professionals serving students with disabilities.

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Guest Expert: David M. Marcovitz

[Dr. David Marcovitz](#) is a Professor of Educational Technology and Associate Dean of School of Education at Loyola University Maryland. He was the founding Director of Graduate Programs in Educational Technology. He has taught computer applications and computer programming at the high school level, and he has worked as a technology specialist in a high school. His scholarly interests include support for technology in the schools, digital citizenship, and the second-level digital divide.

Topic: Intersection of Social Justice and Educational Technology in Teacher Preparation

What will you learn from this Brief?

In this brief, [Dr. David Marcovitz](#) introduces the Educational Technology Social Justice Matrix, a preliminary model he created to help frame discourses regarding research, development, and application of educational technology through the lens of social activism and anti-racism. Dr. Marcovitz discusses the rationale behind the development of the Matrix and reviews emergent research that intersects educational technology and social justice. Finally, Dr. Marcovitz provides implications for future research on technology integration into teacher education programs.

Context

To address diversity and equity in education, there is increasing research investigating how to prepare educators to establish inclusive, technology-rich, and 21st-century learning environments (e.g., Selwyn, 2017). Researchers suggest that

when integrating technology, teacher educators should instill the disposition of using technology for knowledge construction into teaching, prioritize pedagogic action, as well as incorporate modeling and practical experience (Belland, 2009). A lack of considerations of socially constructed factors, such as race, in teacher development and technology beliefs might influence technology integration in practices (Heath & Segal, 2021).

Drawing upon a review of recent literature (2018-2019) on educational technology and social justice, Marcovitz (2021) identified five broad themes including digital democracy, digital divide, STEM/makerspaces, online learning/instructional design, and media literacy. Marcovitz analyzed connections of the identified categories to social justice within the model of Social Justice Pedagogical Content Knowledge (SJPCCK) developed by Dyches and Boyd (2017). Marcovitz found that most reviewed studies grounded theoretical underpinnings within culturally relevant pedagogies (Ladson-Billings, 1995). However, disability was not visible within this literature. Interestingly, another article investigating research on social justice in teacher education indicated that disability was typically treated as an isolated marker of identity with little consideration of intersectionality (Pugach et al., 2021). Moving forward, Pugach and colleagues suggest that promoting instruction that connects multiple learner identities supported by diverse instructional strategies will help transform teacher education for social justice.

In this brief, Dr. Marcovitz provides a context within which he developed the Educational Technology Social Justice Matrix that categorizes reviewed studies using the SJPCCK model. He uses several studies as examples of how researchers and practitioners can use Matrix to analyze existing research-based practices from the lens of social justice. In addition, Dr. Marcovitz suggests that future research on educational technology can look at the intersection between social justice and Universal Design for Learning (UDL) that serves as a framework for guiding inclusive instructional designs.

Key Insights

Research shows that pre-service teachers benefit from modeling and practices through technology-based field experiences (Hixon, 2009). In several studies

reviewed by Marcovitz, technology-based field experience was also highlighted as a way that supports teachers and teacher educators in connecting diverse cultures within and across communities.

Dr. Marcovitz: "... a project that teachers can do with their students and teacher education programs can do with their teacher candidates to help them understand how to do with their students."

In the digital era, it is imperative to prepare educators for leveraging technology to enhance access to high quality learning experiences for all learners. Higher education institutions should consider strengthening the preparation of teacher candidates for technology-supported instruction that connects multiple learner identities, such as race and disability, through the lens of social justice. To do so, it is essential to articulate expectations that speak directly to social justice for both faculty and teacher candidates (Kapustka et al., 2009). However, there remains a question as to whether social justice is explicitly positioned and addressed in various professional standards and educational technology standards.

Dr. Marcovitz: "If you look at various standards and educational technology standards and things they always mention equity somewhere in there, but there aren't great ideas about how that actually happens in the real world."

The more pre-service teachers approach instructional practices toward a student focused orientation, the more positive perspectives they would hold regarding integrating various technologies to support student learning (Heath & Segal, 2021). Integrating the UDL framework and technology in teacher preparation programs has the potential to improve the capacity of pre-service teachers to implement student-centered instructional practices.

Dr. Marcovitz: "... look at the next two years' worth of papers, maybe there will be enough research on UDL to form a category because they probably should be an important area."

Link to Video

This Research and Practice Brief can be viewed on video online at tinyurl.com/3wzvf5d6

Suggested Readings

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Transcription of Interview

Transcription of the interview can be found at <https://ciddl.org/wp-content/uploads/2021/08/Brief5-Interview-Transcript.pdf>

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