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An Inclusive OER Pedagogy in Teaching Music Technology in Higher Ed

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Paper (25 minutes)

ABSTRACT

This study introduces an experimental Open Educational Resources (OER) pedagogy designed to teach music technology in higher education. Drawing on teaching experiences at both the University of XXX and the University of XXX, this work explores the implementation of OER-based instruction across in-person and online modalities. Two courses were designed to appeal to students from diverse cultural, racial, economic, and disciplinary backgrounds. The curriculum emphasizes technical skill development alongside an inclusive, student-centered “maker” framework that integrates open-source technologies and mindfulness practices to promote creativity and well-being.

Through course assessments, diverse classroom and extracurricular activities, as well as collaborative student projects, the courses demonstrated strong student engagement and satisfaction. This is evidenced by positive student evaluations, empirical studies, and case studies. The data further reveals that adopting OER materials reduces financial barriers by eliminating the need for expensive textbooks and equipment, while simultaneously enhancing the learning experience.

Overall, this research contributes to understanding how OER pedagogy can foster diversity, equity, and inclusion (DEI) in STEAM fields. It sheds light on how to integrate open-source technology and mindfulness arts into teaching music tech to promote creativity, academic performance, and well-being. The author hopes to equip educators with strategies to create inclusive, student-centered learning environments and implement cutting-edge OER tools and practices to enhance teaching effectiveness and student engagement in music and interdisciplinary education.

ABOUT THE PRESENTER

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Dr. Jiayue Cecilia Wu (AKA 武小慈), a scholar, composer, audio engineer, and president of ATMI, specializes in utilizing music technology for healing and social impact. With a B.Sc. in Design and Engineering, she spent over a decade as a music producer and consultant with EMI Records, Universal Music Group, and Shazam Entertainment. Her academic journey includes a Master of Art in Music, Science, and Technology from Stanford University and a Ph.D. in Media Arts and Technology from UC Santa Barbara. Dr. Wu's music has been performed globally across Asia, the U.S., Canada, Australia, South Africa, Brazil, and Europe. Her intellectual contributions include 27 peer-reviewed journal articles, three book chapters, two book publications, and over 100 multimedia compositions, exhibitions, and installations. Currently, she is an Assistant Professor and Program Director at the University of Colorado's College of Arts and Media. Dr. Wu actively contributes to her academic community as a peer reviewer for high-impact research journals, chair of the DEI Committee at the Audio Engineering Society (AES), and in leadership roles with SEAMUS and the International Computer Music Association (ICMC). Globally recognized for her expertise, she has delivered guest lectures and workshops on Embodied Sonic Meditation at prominent R1 research institutions and international events.