



Values of Data for Architecture, Engineering and Construction

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Bio



Dr. Dong Zhao is an Associate Professor of Construction Management and Adjunct Associate Professor in the Department of Civil and Environmental Engineering at Michigan State University, where he directs the Human-Building Systems Laboratory and serves as Graduate Director for Construction Management. His research focuses on human-centered digital and smart construction, applying AI and data-driven computing to improve building and infrastructure systems, with expertise spanning Building Information Modeling, green buildings, human-building interactions, smart cities, and virtual/mixed reality applications. He is a recipient of the NSF CAREER Award. Dr. Zhao has authored over 100 peer-reviewed publications and leads research funded by NSF, DOT, USDA, EDA, and DOD. He serves as the elected Chair of the ASCE Data Sensing and Analysis Committee and reviews for over 100 journals and conferences globally.

Abstract

The presentation introduces the efforts of the Values of Data (VD) task force by ASCE's Data Sensing and Analysis Committee, which aims to define and promote the value of data across research and practice. The talk synthesizes insights from three coordinated efforts: a systematic review of data-centric civil engineering research, a survey of ASCE members to capture practitioner needs and barriers, and interviews with successful data awardees to understand how impactful data sharing is achieved in practice. Together, these findings inform a strategic roadmap for strengthening data-sharing culture and advancing community-driven benchmark datasets in civil engineering.