A Review of Research-to-Practice Drivers and Barriers in Visualization, Information Modeling, and Simulation

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ABSTRACT

The introduction of emerging technologies in the capital projects industry has led to an exponential increase in the volume of information collected during the life-cycle of capital projects. Despite this, only few of these technologies have gone through commercialization and been standardized across different sectors of the industry. To investigate the root causes of this problem, the Visualization, Information Modeling, and Simulation (VIMS) Committee of the ASCE Computing Division launched an initiative to document research to practice (R2P) challenges faced by both academia and the industry. This paper provides an overview of R2P practices from related fields, followed by a structured study aimed to solicit input from experts in VIMS-related domains, and a discussion of drivers and barriers identified from our initial findings. Findings are sought to ultimately contribute to successful knowledge transfer, commercialization, and entrepreneurship in the capital projects industry.