Potential of Visualization and Information Modeling on Productivity Improvement and Cost Saving: A Case Study of a Multi-Residential Construction Project

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Abstract : Construction sites are information saturated. Digitalization is hitting construction sites to meet the incredible demand of knowledge sharing and information documentations. From flying drones, 3D Lasers scanners, pocket mobile applications, to augmented reality glasses and smart helmet, visualization technologies help real-time information imposed straight onto construction professional's field of vision. Although these technologies are very applicable and can have the direct impact on project cost and productivity, experience shows that only a minority of construction professionals quickly adapt themselves to benefit from them in practice. The majority of construction managers still tend to apply traditional construction management methods. This paper investigates a) current applications of visualization technologies in construction projects management, b) the direct effect of these technologies on productivity improvement and cost saving of a multi-residential building project via a case study on Mac Taggart Senior Care project located in Edmonton, Alberta. The research shows the imaged based technologies have a direct impact on improving project productivity and cost savings.