Guest Editorial Preface

Special Issue on the BIM Gathering International Conference

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On behalf of the Construction IT Alliance (CitA) in Ireland, I am delighted to have this opportunity to present selected journal papers that were developed from conference papers delivered at the BIM Gathering International conference held in Dublin in late 2017. The inaugural BIM Gathering conference took place in November 2013, which was the year of the Gathering, a tourism-led initiative in Ireland aimed at mobilizing Irish diaspora to return to Ireland during 2013 to be part of a specially organized local gathering of events during that year. The BIM Gathering provides an opportunity for Ireland to both share its experiences in the use of BIM but also to learn from the international community. The 2017 conference was particularly timely, as the Irish construction industry through its National BIM Council published its *Roadmap to Digital Transition for Ireland's Construction Industry 2018-2021*, which has gained much international interest.

The articles present an intriguing blend of papers dealing with phenomena of BIM at both a macro and micro-level appealing to both the non-technical and technical readers of this international journal.

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In this regard, the first article reports on the platform of work that was carried out by the authors in the preparation of the National BIM Councils Roadmap. The authors work in collating important international experiences and reporting on global initiatives helped to shape the Irish Digital Transition programme. The purpose of this article is to demonstrate how Ireland's Roadmap reflects best international practice and why international knowledge sharing and collaboration will be an ongoing priority for Ireland's transition programme.

The second article, on the basis of an empirical study, argues that as-designed BIM rarely match exactly what is built on-site. The traditional methods for ensuring the design matches the built environment are very tedious, costly, and time-consuming as project stakeholders must manually navigate through the model to find problems, relying on their subjective judgement. The authors present a novel approach that uses automatic model construction techniques to create a comparable data model between the as-designed BIM and as-is point cloud by employing an open standard BIM Collaboration Format (BCF).

The third article outlines a pedagogical approach to successful BIM learnings through a cyclical process in the development of a tri-varsity, inter-disciplinary BIM framework workshop facilitated through; Sheffield Hallam University, VIA University and Waterford Institute of Technology. The authors presented the results of a positive experience of the participating staff and students that can lead to a paradigmatic shift away from adversarial relationships between the AEC disciplines in practice and education.

The fourth article presents findings from an established and funded H2020 project (iBIMm) which sought to develop innovative prefabricated panels to reduce building energy demand while preserving and improving building aesthetics and thermal comfort. The authors present an Iterative Design Methodology and resultant software tools which when combined can enable design teams to make informed decisions based on building information models in order to accelerate and optimize the retrofit process.

CONCLUSION

Such discussions provide a greater insight as to the increased relevance of BIM as an innovative solution that can be applied both at a macro and micro level. Building on the platforms of leadership, education, standards and procurement pillars of the Roadmap presented in the first article we can see why leaders in both the public and private realm need to embrace digital more strategically.

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