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ISSN 2204-9029 | Published by UTS ePRESS | ajceb.epress. lib.uts.edu.au **BOOK REVIEW**

Claims, Disputes and Litigation Involving BIM

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Claims Disputes and Litigation Involving BIM Routledge: Devon, United Kingdom, 2015 ISBN: 978-0-415-85894-6. 208 pages

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The connotation of Building Information Modelling (BIM) has exponentially evolved over the past decade. BIM is now accepted as an innovation that is transforming practices within the construction industry throughout the entire project lifecycle. BIM attracted the interest of stakeholders longitudinally across construction sectors (i.e. industry associations, academia and communities of interest) and vertically across countries (i.e. at city, region and nation level). Many policy makers are investigating and developing national BIM policies and a variety of strategy documents, adoption reports, data exchange standards, and collaboration protocols to facilitate BIM adoption across their respective countries and markets. The issue of the legal implications surrounding BIM adoption within projects is one of the most widely discussed but remains perhaps the least understood area of BIM implications. If the reviewed book fulfils its aim and title (Claims, Disputes and Litigation Involving BIM), it would be the earliest book to address this important subject.

Readers approaching this book – whether they are academic or practitioners – are interested in the interplay between the BIM and the legal/contractual topic and they are unlikely to have knowledge in both topics. The book anticipates and addresses this possibility appropriately in the first two chapters that respectively explain the basics of construction claims, and BIM. The concepts underpinning construction claims are clearly explained and structured (i.e. contractor



claims against owners and their different types, owners claim against contractors and their different types) with anticipated examples that include aspects of relevance to BIM. Similarly, a short overview of BIM, its definition, tools and workflows is presented for readers who may not be familiar with the subject. This first part is effective in equipping readers with the required readiness for appreciating and understanding the legal and claim considerations that are discussed later on in the book.

Understanding claims, disputes and litigation involving BIM requires the challenging intertwining of concepts from the case law, procurement and contract strategies, emerging standards, guidance and specification, and digital technologies. This book succeeds to a very good degree in presenting and discussing the relevant notions from across these different areas of knowledge. The book takes every opportunity to present relevant case studies from the case law. Although these case law instances are not BIM specific, they are often accompanied by an explanation and analysis of how they could manifest in projects using BIM. The author devotes a significant effort to compare and contrast communalities and differences between various US owner- and state- specific BIM guidelines (i.e. Indiana University, State of Wisconsin, US Department of Veterans Affairs, State of Ohio Building, New York City), form contracts (i.e. AIA – E202TM 2008 BIM Protocol Exhibit 64; AIA – E203TM 2013 BIM and Digital Data Exhibit; AIA - G201™ 2013 Project Digital Data Protocol; AIA -G202[™] 2013 Project BIM Protocol Form) and addendum (i.e. ConsensusDocs – 301[™] Building Information). This discussion is undoubtedly beneficial for both (1) policy makers who are responsible for developing BIM guidelines and standards, and (2) practitioners who are interested in understanding the legal aspects surrounding BIM use in their projects. The conjoining of these concepts does not enjoy the same level of success and the discussion varies in term of level of details and is sometimes repetitive. The discussion also feels, in the reviewer's opinion, lengthy and cumbersome. However, credit should be given to the author for embarking on such a discussion whose challenges are inherent in the process of developing BIM guidelines and standards. These documents continue to proliferate without a universally agreed upon standardised format, content or defined concepts for their development between countries or within the different regions of the same country.

The extensive cross-analysis of the above sources concludes that:

- These documents, collectively and individually, support the expectations of standard of care and workmanlike performance in relation to BIM in the US; and
- BIM will not change the legal landscape of bringing a claim in the US. The "entitlement, causation, damages" process will still apply.

The methodological approach adopted to address the book's aim is credible and robust despite being written by a practitioner for a non-academic audience as explained on its hardcover. The author covers three bands of knowledge (i.e. general industry research; guidelines and standards; and form contracts) in a systematic approach. The systematic approach consists of analysing these knowledge bands using two 'sieves', the "professional/contract" (i.e. the responsible control; model development use and reliance; and legal status of the BIM model) and "technical" (i.e. software version control; 2D-3D conversion; interoperability; data loss, and data archiving and preservation; copyright and intellectual property). This analysis concludes that the major issues, such responsible control and the legal status of the BIM model, are increasingly considered from a BIM perspective despite discrepancies between some of the analysed guidelines and standards of care. Despite the specific US-based nature



of the standards of care and guidance, the proposed methodology and analysis are valuable for researchers and policy makers with an interest in developing new standards of care or aligning existing ones.

The title of the book may be misleading to a prospective reader. Readers may expect to learn about several court cases or case studies of claims, dispute and litigation involving BIM. There is actually a lone standout dispute that has made it to the court (p. 103). However, the author acknowledges that such case studies are sparse and revert to the approach described above for the analysis of claims involving BIM. The book's major focus on the traditional Design-Bid-Build procurement is a further weakness. Other forms of procurement adopted in the U.S. (e.g. DB, IPD) are hardly considered.

This analysis shows that legal issues from a BIM perspective are increasingly considered by the standards of care and guidelines despite the permanence of key challenges such as the legal status of BIM model. The book concludes with a hypothesis or an expectation that BIM will impact construction law by bringing transparency and enabling a comprehensive audit trail that could, in turn result in fewer disputes. Combining these findings together with some on-going initiatives (e.g. the FIATECH Common Processes for e-submittals of BIM for code review and compliance), the author concludes with an expectation that the insurance and surety market will react in the near future by developing BIM specific instruments.

I would recommend this book for practitioners in the US and researchers worldwide. Practitioners, interested in exploring the legal landscape surrounding BIM use in US-based projects, may find it as a good place to start their journey. My recommendation should be accompanied with a warning about the archival value of the book as the standards and guidelines used in the US are likely to evolve in the near future. It is clear from this review that the methodological approach for the analysis of the legal aspects of BIM is a key area of strength in this book. This methodological aspect will preserve its archival value hence, I feel confident that researchers may find some of its methodological elements helpful in their quest to unravel the answers to legal implications of BIM.

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