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Developing strategies to align BIM services in construction contracts [MA 242]

The adoption of a digital technology like BIM has given a significant transformation to the projects in the AEC industry, upgrading the methodologies like collaborative environment, efficiency and enhancement of project outcomes throughout the project lifecycyle. Through the projects integrated BIM in its methods, there has been a complex challenge in alligning this process into the existing conventiional contracts. This reason behind these challenges of incorporation such as old framework and other project delivery methods is studied in this thesis with detailed explanation. First by understanding and analysing the existing contractual framework with their limitations to BIM and then using the data to develop effective strategies that could help allign BIM services into construction contracts. This research analyses contractual frameworks such as NEC4, JCT, FIDIC and PPC2000 and its compatibility with BIM workflow. The research also leverages survey results from BIM professionals in this industry who are using it in practice, to identify barriers and propose solutions to redefine the clauses perticularly for BIM. Findings from the literature and survey shall be analysed in the end, using which clear definitions can be expected for alligning BIM into these contracts, fostering seamless collaborative environment and addressing issues relating to data security and accountability. Finally this thesis attempts in providing a comprehensive framework to contract practitioners and drafters to incorporate BIM methodologies and services into the clauses, providing an efficient way to integrate BIM into construction projects.