Artificial Intelligence and the Future of Construction Dispute Resolution

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Artificial intelligence (AI) is revolutionizing industries worldwide, and construction is no exception. From project management to risk assessment, AI-driven tools are improving efficiency and mitigating conflicts. But can AI play a role in resolving construction disputes - one of the AEC industry's most persistent challenges?

Thomas Mitchell, PE, a senior project manager with more than 30 years of experience at Urban Engineers, is at the forefront of AI applications in construction. With expertise in dispute resolution, he explores how AI is currently being used, its potential for resolving conflicts, and the legal and ethical challenges that must be addressed in the future. In this Q&A, Mitchell shares insights into AI's evolving role in construction litigation and what professionals need to know as this technology impacts the industry.

What are the most common causes of construction disputes today, and how can AI help mitigate them?

According to sources, the most common causes of construction disputes include errors and omissions, differing site conditions, resource availability, and owner-directed changes. Errors and omissions, such as design flaws or incomplete documentation, can lead to conflicts about project execution. Differing site conditions, including unexpected environmental or structural challenges, can result in delays and cost overruns. Resource availability issues, such as shortages of materials or skilled labor, can disrupt schedules and lead to disputes over responsibilities. Additionally, owner-directed changes,

where modifications are requested after construction has begun, frequently cause disagreements over scope, costs, and timelines.

Are there any real-world examples where AI has successfully resolved a construction dispute?

A recent study published by the American Society of Civil Engineers (ASCE) in 2023, Journal of Legal Affairs and Dispute Resolution in Engineering and Construction, tested AI's ability to analyze past construction disputes that had already been resolved through adjudication. When AI was applied to these cases, it successfully predicted or aligned with the actual reasoned resolutions (the final decisions made in those disputes) 95% of the time. Considering such a high statistical success rate, I was curious to research the potential

opportunity of using AI in dispute resolution. However, no specific decision-making platform is commercially available for dispute resolution at this time.

What are the biggest limitations of AI in construction litigation today?

One challenge with AI is the ability to maintain the confidentiality of the parties when using the data for processing with the AI machine. The question arises, how is the data protected from being released or accessed by outside non-participating parties? Such data could include personal information, company financial information, and intellectual property. As noted in an article by the American Bar Association (ABA) entitled "Artificial Intelligence in Construction: Potential Capabilities and Risks," consideration must be made for data privacy laws and copyright infringements. Although not construction-related, the New York Times initiated litigation in December 2023 against AI companies for the use of its copyrighted content for purposes of AI learning.

How can AI help analyze construction contracts and identify potential risks?

Considering the large amount of data generated by construction projects, AI can be used to either assist in resolving construction disputes or provide a basis for predicting potential outcomes based on the project data and past litigated findings.

By identifying trends and patterns in contract disputes, AI helps address potential issues before they arise, improving contract management and reducing conflicts in construction projects.

In what ways can AI enhance mediation and negotiation processes in construction disputes?

AI applications, such as Lex Machina and Solomonic, have demonstrated an ability to rely on past litigated judgments with additional data input to reach a predicted conclusion, which may assist in the decision-making of whether to negotiate a settlement or move forward with litigation.

What key takeaways should construction professionals consider moving forward?

AI is here and is forthcoming to construction dispute resolution. The construction dispute industry must start preparing for the eventual use of AI. Currently, fully capable use

is at the beginning stage of the bridge crossing (pun intended). Some use of AI has been demonstrated and apparently successful.

The reality is that the large amount of data generated from construction software programs provides an opportunity to use AI to synthesize. However, the results of the synthesis must be verified, and not blindly accepted.

AI can be used as a guide in disputes to analyze and predict outcomes. But, more importantly, the use of AI must be approached with careful consideration of the resulting information and protection of confidential information. Safeguarding and protecting confidential and proprietary information must be addressed and incorporated.

From my perspective, AI can be best applied as a resource for consideration and guidance but not as a conclusion or answer for construction dispute resolution. AI will synthesize data, but it requires the experience of a seasoned construction consulting professional to consider the information derived from AI sources and apply it to the analysis and conclusions.

The Australian Guide for Judges concludes, "[a]n important question beyond judicial values is whether the use of a particular AI system will be acceptable to litigants and members of the public."

References:

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Thomas Mitchell, PE, is a senior project manager at <u>Urban Engineers</u>. He has extensive consulting experience providing construction management, scheduling, dispute analyses, and resolution advisory services to the construction and engineering industry. Mitchell has expertise working with several federal, state, and local public agencies, as well as construction companies, engineering firms, and insurance carriers.

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