



2020 CLM Focus Conference  
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Virtual Conference

## **Litigating in the World of Artificial Intelligence and Emerging Technologies**

### **Background and Purpose**

Following up on last year's panel presentation of "Keeping up with the Techies," the panel will double down on the discussion of construction technology and narrow the focus on what's next in terms of litigating in the world of Artificial Intelligence (AI). With software developed to learn and adapt, see things we can't see, or perform everyday duties, construction is no longer completed with an engineer and a slide rule, brick walls built by masons, or oversight by an actual person. We have predictive design software performing engineering, robots as brick masons, and software systems monitoring on-site personnel. Tomorrow is today. The uses for such technology has emerged on construction sites, but has not been exploited to-date from the post-loss, insurance side. The desks of claims professionals, attorneys, and experts should expect an increased volume of claims that involve such technological innovations, data produced from such innovations, and technology itself. As an industry, we must pivot our thinking and align ourselves with such technological innovations by having the foresight to see what's next, while exploiting the data more effectively and efficiently. Soon the insurance industry will openly embrace technology and leverage it's use in adjusting claims, making legal arguments, and providing experts untapped data to present to the jury.

### **I. Introduction to Emerging Technology**

Understanding emerging trends in technology with a focus on litigating in the world of artificial technology is invaluable for the claims professional. It enables the claims professional to ask additional questions relating to the investigation and assist them with viewing more data and analytics as they evaluate liability and exposure. Knowing technological trends can help reduce risk and exposure with their insureds. This presentation will continue the discussion on methodologies and trends with new technology for the claims and litigation process with the goal of providing claims

professionals a greater understanding of using new technology in investigating and determining liability.

There are numerous categories of using AI and emerging technology that require brief backgrounds as to the purpose of their existence and how they will shape the future for claims professionals, attorneys, and experts:

i. Prevent Cost Overruns – Artificial Neural Networks are used on projects to predict cost overruns based on factors such as project size, contract type and the competence level of project managers

ii. AI for better design of buildings – building information modeling is a 3D model-based process that gives architecture, engineering and construction professionals insights to efficiency plan, design, construct and manage buildings and infrastructure.

iii. Risk Mitigation - AI is used to automatically assign priority to issues. Subcontractors are rated based on a risk score so construction managers can work closely with high-risk teams to mitigate risk.

iv. Project Planning - Algorithms of the future will use an AI technique known as “reinforcement learning.” This technique allows algorithms to learn based on trial and error.

v. AI for Construction Safety - Photography/Photogrammetry/Drones (SmartVid.io, EarthCam, OnSiteIQ, OpenSpace) – Create algorithm that analyzes photos from its job sites, scans them for safety hazards such as workers not wearing protective equipment and correlates the images with its accident records.

vi. AI could address labor shortages – Innovation in this category is significant with autonomous construction equipment and advances in labor-intensive tasks at the forefront. TyBot is a rebar-tying robot for large bridge construction while Toggle created a handheld rebar-tying tool. Others include brick-laying machines, drywall-hanging robots, etc.

vii. Modular / Pre-Fab (Katerra) - Studies have indicated that use of modular and prefabricated elements can save cost (16%), schedule (45%) and improve overall project performance and safety.

viii. 3D/4D/5D Modeling / Digital Twins (Avvir, Capgemini, Bentley (iTwin))

Integration of all these systems provides a more holistic understanding of risk, incident facts, and adjudication of claims. The data allows us to know, rather than surmise or opine on, what actually happened in the event of a loss.

## **II. Case Studies**

### **Technology in Action**

To illustrate how construction technology comes into play in a claim and how it is likely to shape how we manage future construction claims and litigation, we explore two recent and relevant case studies:

### **Hard Rock Hotel Collapse (New Orleans, Louisiana)**

Exposures: Bodily Injury, GL, Property

How tech could have reduced risk: Sensors, Wearables,

How tech could help forensically identify cause of loss: photography,

How tech could assign liability: Daily documentation,

How tech could reduce cost of claim: 3D/4D/5D Modeling / Digital Twins

### **Crane Collapse at Sofi Stadium (Los Angeles, California)**

Exposures: GL, Property

How tech could have reduced risk: Sensors, Wearables,

How tech could help forensically identify cause of loss: photography,

How tech could assign liability: Daily documentation,

How tech could reduce cost of claim: 3D/4D/5D Modeling / Digital Twins

## **III. Technology Meets the Law**

### **AI is the new frontier**

Discuss how the data will play into legal process and procedures. Discuss if and how the data can, should and likely will be used by the various parties.

- Admissibility of evidence through data;
- The sheer volume of data collected by these devices will be indiscernible without employing specialized analytics companies
- The owners may be unaware that the data collected by these devices is discoverable
- The courts will have difficulty drawing the line between discoverable and privileged data
- The parties must prove that the information is reliable, and if it is not, must supplement the information with other evidence and witnesses.
- One question that remains is whether the plaintiff (and their experts) can prove their case through non-destructive evaluation; and whether the defense (and their experts) will agree to this method.

### **Determination of Liability with Technology**

The procedure to which liability is determined shouldn't be any different whether or not data from construction technology is considered on a construction accident, defect,

or property loss claim. This is especially true for experts who are generally engaged post-loss and will be on the front lines providing consultation to the claims professional and attorney. The difference between the way this was done in the past versus where the industry is going directly correlates with technology. Specifically, the availability and type of data produced, the reliability of the data itself, and the subsequent development of expert opinions.

It is uncertain whether the claims and litigation community, on both the plaintiff and defense sides, may universally accept the data produced by technology. There is surely a universal cause for concern with perhaps rudimentary tasks performed. Examples:

- Destructive testing on defect claims. There are emerging technologies that may make destructive testing a task of the past, given new equipment and procedures that could prove the task to be unnecessary. Plaintiffs may be able to prove their allegation without cutting open a wall, however it's questionable whether the defense may accept an alternative to destructive testing by plaintiffs. It should also be considered whether the use of technology may provide a means of indemnification to owners/claimants.
- Under conditions of accident reconstruction on construction sites. Emerging technologies with photographs, videos, proximity sensors and more can virtually recreate accidents with little contention. It should be considered whether the re-creation includes all relevant context to accurately capture the entire picture in order to fairly and accurately assign liability and resolve the claim justly.

In any scenario, the good comes with the bad, and vice versa. With a law that is lagging, it is unclear how the data will or can be used by the plaintiff and/or defense to make their case. And, how the opposition will react. Clearly the use of technology yields many pros, and conversely additional cons. Voluminous data will undoubtedly provide more details on cause and origin investigations and provide more accurate determinations of liability across the board; however, certain questions will undoubtedly arise through the claims and litigation process that test the rules of expert testimony and limits of the scientific method. The insurance and legal communities will be pressed to make policy interpretations and push the law forward, respectively, as emerging technologies evolve.

### **Expert Witness Testimony**

Expert witness testimony is dependent on the requirements of Rule 702 (Testimony by Expert Witnesses). Rule 702 requires reads as follows (Pub. L. 93–595, §1, Jan. 2, 1975, 88 Stat. 1937; Apr. 17, 2000, eff. Dec. 1, 2000; Apr. 26, 2011, eff. Dec. 1, 2011):

*“A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:*

- a) *the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;*
- b) *the testimony is based on sufficient facts or data;*
- c) *the testimony is the product of reliable principles and methods; and*
- d) *the expert has reliably applied the principles and methods to the facts of the case"*

As technology becomes more prevalent, the data becomes abundant and so does our dependence on same as an industry and a culture. E.g. When was the last time you gave someone directions to your house? Technology is empowering but its abundance and prevalence can easily render old methods obsolete. We must explore how this affects our typical process and procedures during claims and litigation. Rule 702 specifies that experts must have "scientific, technical, or other specialized knowledge" on a subject and that their testimony is based on "sufficient facts or data." As technology evolves, experts everywhere will be pressed to continue learning and development in order to ensure they can review, assess, and evaluate new technologies. If the data produced and reviewed is misunderstood or overlooked, the implementation of technology will go to waste. Lastly, the most pressing and perhaps most exposed topic for rebuttal will relate to whether an "testimony is the product of reliable principles and methods." There is no doubt that innovators everywhere are finding better mousetraps to improve safety on construction sites and efficiency in homes; however, the use of data produced by such technology must be exhaustively researched and accepted by the scientific and expert community. If not, the risk of opinions rendered from such data could be labeled unfounded; such could lead to unfavorable case law and hinder the use of technology by experts in determining cause and extent of damage, and more importantly, liability.

### **The Scientific Method**

Experts rely upon the principles of the scientific method as a systematic way of solving a problem; hypotheses are formed and then systematic tests are performed to determine the conclusion (i.e. cause, liability, etc.). Understanding the scientific method as it relates to emerging technology is critical; including the following six steps:

- Purpose/Question – Ask a question. Example: What caused the Notre Dame fire?
- Research – Conduct background research. Example: Inspect the fire damage. Interview interested parties. Etc.
- Formulate Hypothesis – State an opinion that must be tested; generally, in a cause and effect format. Example: The fire was caused by sparks produced by welding crew working in the attic of the building.
- Conduct Experiment – Test the hypothesis. Example: Bodycam video from the welding crew depicted sparks landing on the framing and attic insulation. Sensors in the attic pinpointed the time and occurrence of the fire.

- Data/Analysis – Record observations and analyze what the data means. Example: Review industry standards. Review data. Etc.
- Conclusion – Conclude to accept or reject the hypothesis.

The previous exercise is basic and arbitrary; considering the data discovered through the use of technology (i.e. bodycam, sensors), there is potentially less contention with the expert opinion and subsequent assignment of liability in a scenario like this.

### **Accepting Technology – Plaintiffs & Defense**

A more contentious foreshadowing of the future will occur when experts use technology as a tool in the rendering of an opinion (i.e. presenting their case and proving their hypotheses with the use of emerging technologies in lieu of typical (current) methods). One foreseeable way both plaintiffs and defense (attorneys and experts) will agree upon emerging technologies will be the acceptance of their reliability in the scientific community. Absent of this acceptance, experts will label the oppositions opinion as “junk science” or “unfounded.” This would apply in either direction – if the plaintiff alleges defects to a property, extrapolates across a property, and presents such opinions following the completion of destructive testing, the defense may have difficulty rebutting their opinion through the use of non-destructive testing. Similar to any skeptic, one there is a universal acceptance or acknowledgement of something new or unknown, the opposition is going to have a hard time.

## **IV. Conclusions & Takeaways**

### **Risk Reduction, Claims Resolution, and Assignment of Liability**

Innovation will never slow down. The new and emerging technologies that were once just concepts are here and being implemented on construction sites and inside homes increasingly every day. How can this aggregated “big data” help us reduce overall risk in the construction industry? The answer is simple – by turning technology into what-if scenarios and contingency planning. This will help with risk reduction and a reduction of claims. Lastly, claims professionals, attorneys, and experts can utilize technology to more quickly and definitively assign liability. The takeaway: contractors, claims professionals and attorneys alike can benefit on all levels by understanding, embracing and leveraging the emerging technology of tomorrow.