

BUILDING BLOCKS

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A Risk Management Conversation with A.I.

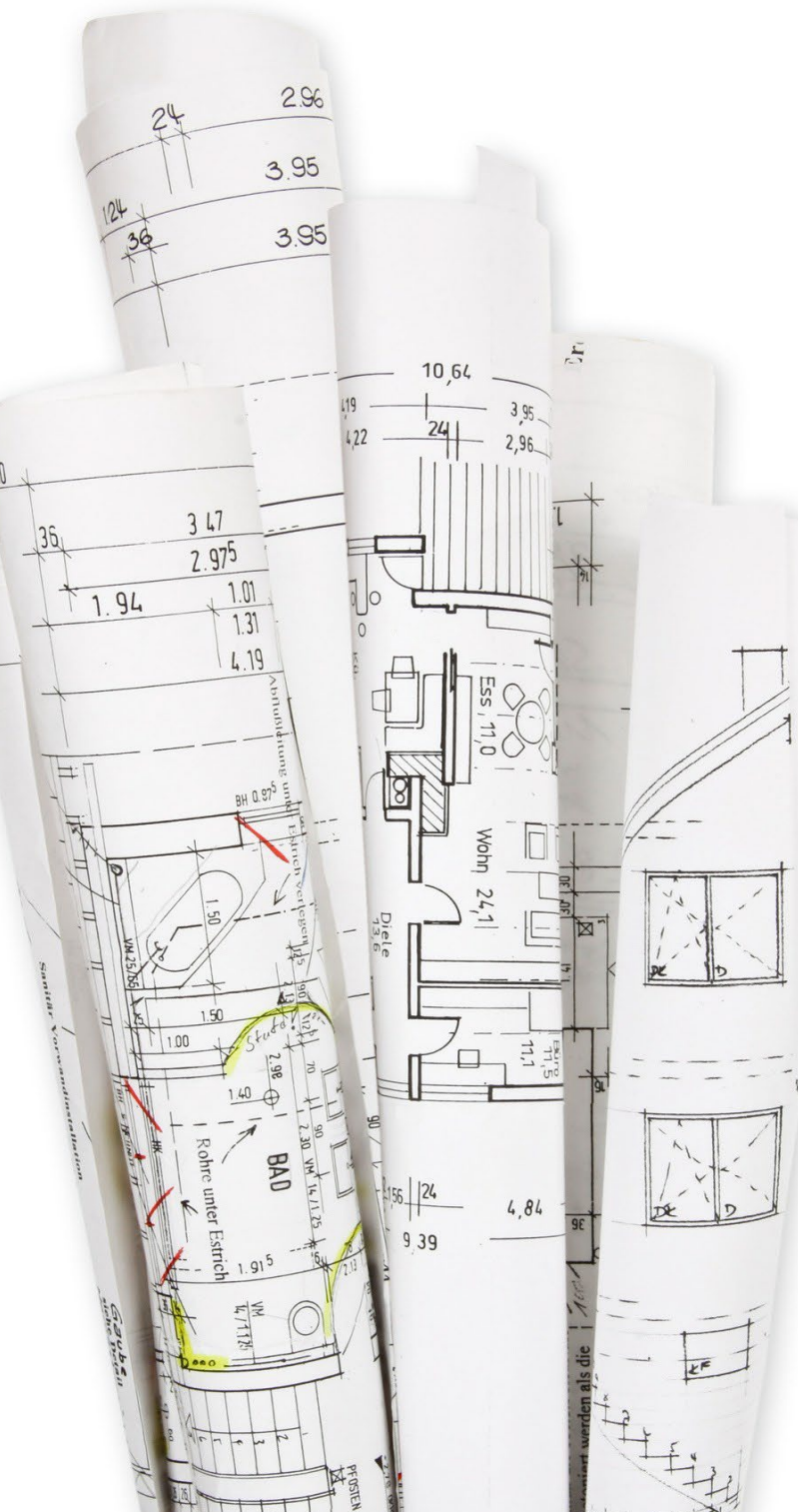
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DesignPro Insurance Group

The following relatively brief conversation regarding the design professions is shared here with OpenAI's "Chatbot" (as he/she suggested as its name to go by). You may find Chatbot's responses to my questions interesting, even if you have already used ChatGPT.

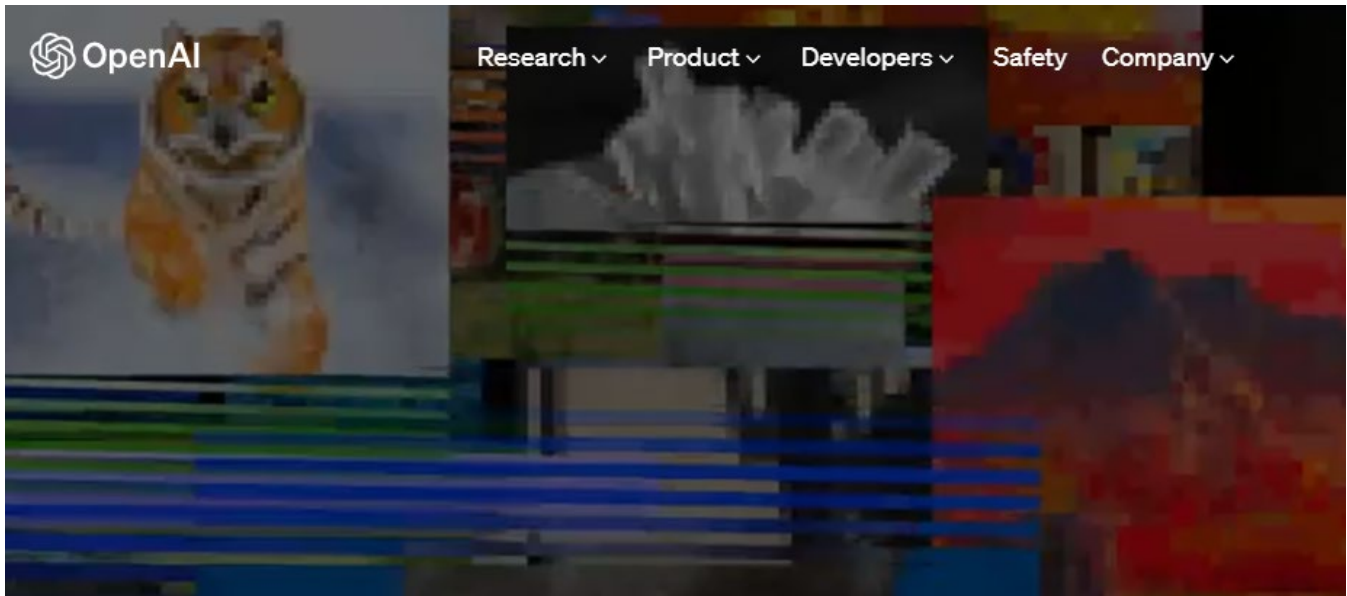
Chatbot's responses differ from a Google inquiry, which spits out a list or references for you to follow up on, on your own. In contrast, Chatbot gives you straight forward answers to your questions, but is very chatty. So, the answers in the conversation have been condensed for this article to make it more readable. In this sense, Chatbot errs on being a bit over-inclusive.

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That being said, artificial intelligence has been a topic for well over 50 years. If you have an interest in it from a historical perspective, skip ahead and go to the last couple of questions and answers. And on September 12th, at the American Institute of Architects' Ohio conference in Columbus, an educational program titled "AI & Architecture's HSW of the Public—a Case Study of the First Fatality Involving Tesla with Autopilot Engaged" will be presented. The program generated the idea to have this conversation with AI.



MY CONVERSATION WITH CHATBOT IN RED

Do you have any favorite particular style of architecture?

As an AI language model, I don't have personal preferences or opinions. However, I can provide information about different styles of architecture that are often admired by many people.

There are numerous architectural styles that have evolved over the centuries, each with its own unique characteristics and appeal. Some popular architectural styles include:

Gothic, Renaissance, Baroque, Neoclassical, Art Nouveau, Modernism and Contemporary. These are just a few examples of architectural styles, and there are many more that have contributed to the rich tapestry of architectural history. The beauty and appeal of each style often depend on personal taste and cultural context.

Do you have any suggestions how I can start the design of a football stadium?

Designing a football stadium involves various considerations, including functionality, aesthetics, safety, and the overall fan experience. Here are some suggestions to help you start the design process:

Define the project goals, research regulations and standards, perform a site analysis, evaluate potential sites, functional layout, spectator experience, safety and security, ensure compliance with standards and best practices, sustainability and environmental considerations, engage architects, engineers and other relevant professionals to collaborate on the design alternative design process. Remember that the design process is often iterative. Develop initial concepts, gather feedback, and refine your design based on stakeholder input and feasibility assessments.

Remember, designing a football stadium is a complex undertaking, and it's essential to consult with experts and professionals in relevant fields to ensure a successful outcome.

I am going to restate my question a bit differently, if you have anything else to add. As an architect, where do I start the design of a football stadium?

Certainly! Here are some steps you can follow to start the design of a football stadium:

Research and gather information, define project objectives, site selection and analysis, conceptualize the design, develop initial design concepts that align with the project goals, collaborate with experts, functional layout, consider spectator experience, safety and accessibility, sustainable design, visualization and documentation: Utilize architectural software to create 3D models, renderings, and virtual walkthroughs of the stadium design.

Remember, designing a football stadium is a complex endeavor, and it's crucial to collaborate with a team of experts and professionals to ensure a successful outcome.

Are there any health, safety or welfare aspects for the fans, players, coaches and employees that I should consider in my design?

Absolutely! When designing a football stadium, it's crucial to prioritize health, safety, and welfare aspects for fans, players, coaches, and employees. Here are some key considerations:

Spectator safety, player and coach safety, employee welfare, security, health and sanitation:

- Restrooms and hygiene facilities: Provide clean and well-maintained restrooms with sufficient capacity and facilities for hand hygiene.
- Food and beverage facilities: Ensure proper food handling, storage, and preparation areas that comply with health and safety regulations.
- Waste management: Incorporate adequate waste management systems, including trash bins, recycling facilities, and proper disposal methods.

It's important to consult with experts in relevant fields, such as safety engineers and architects specializing in stadium design, to ensure that your design adheres to all applicable health, safety, and welfare standards and regulations.

If I make some minor mistakes in my design, do you think that I will be sued?

I am not a lawyer, but I can provide some general information on the topic. If you make minor mistakes in your design, it is possible that legal issues may arise, but the likelihood of being sued depends on various factors, including the severity of the mistakes, any resulting harm or damages, and the applicable laws and regulations in your jurisdiction.

If the mistakes in your design lead to significant safety hazards, compromise the structural integrity of the stadium, or cause harm to individuals, there is a higher likelihood of legal action being taken against you. In such cases, affected parties, such as spectators, players, or employees, may have grounds to file lawsuits based on personal injury, negligence, or breach of contract claims.

However, it's important to note that the specific laws and regulations regarding liability and potential lawsuits can vary by jurisdiction. Consulting with a legal professional experienced in construction and architectural law can provide you with more accurate and specific guidance based on the laws applicable to your situation. To mitigate the risk of legal issues, it's advisable to take the following steps:

Engage professionals, work with experienced architects, engineers, and other relevant experts who can provide guidance and ensure compliance with applicable regulations and industry standards, conduct thorough quality checks, obtain necessary permits and approvals, ensure that you obtain all required permits, licenses, and approvals from relevant authorities before

proceeding with the construction of the stadium, comply with regulations and standards, pay attention to your documentation and contracts, and consider insurance coverage.

Remember, seeking legal advice from a qualified attorney is crucial to understanding the specific legal implications of your design and the potential consequences in your jurisdiction. They can provide guidance tailored to your unique circumstances and help you navigate potential legal issues effectively.

Are architects required to be perfect, or I am allowed to be human?

Architects, like any professionals, are not expected to be perfect, as being human means making occasional mistakes or encountering challenges. Architecture is a complex and multifaceted field that requires a combination of technical knowledge, creativity, problem-solving skills, and collaboration. It is understood that architects may encounter obstacles, make errors, or face unforeseen circumstances during the design and construction process.

However, architects do have a professional responsibility to adhere to high standards of competence, ethics, and duty of care. They are expected to exercise reasonable skill and diligence in their work, taking into account the best interests of their clients, the public, and the occupants of the buildings they design. This includes following relevant building codes, safety regulations, and industry standards.

When mistakes or challenges arise, it is important for architects to take appropriate actions to rectify the situation. This may involve collaborating with other professionals, revising the design, obtaining necessary approvals, or working with clients and stakeholders to find suitable solutions.

Architects can minimize the likelihood of errors by engaging in ongoing professional development, staying updated on industry advancements, and collaborating with a team of experts. Seeking input from engineers, consultants, and other professionals can help ensure that designs meet the required standards and address various technical considerations.

It's worth noting that architects often carry professional liability insurance to protect themselves and their clients in the event that errors or omissions occur, as this provides an additional layer of support and financial protection.

While architects are not expected to be perfect, it is crucial to maintain a commitment to professionalism, continuous improvement, and a focus on delivering high-quality designs that prioritize safety, functionality, and the needs of the end-users.

What happens if someone is seriously injured at the stadium that is a result of a big mistake in my design?

If someone is seriously injured at a stadium as a result of a significant mistake in the design, it can have serious legal and financial consequences. The injured party may pursue legal action against various parties involved, including the architect, seeking compensation for their injuries, medical expenses, lost wages, and other damages. The specific legal implications will depend on the jurisdiction and the circumstances of the case.

In such situations, the injured party may argue that the architect's design contained a flaw or negligence that directly contributed to the injury. They may claim that the design did not meet safety standards, failed to address foreseeable risks, or deviated from accepted industry practices. The court will consider factors such as the severity of the injury, the evidence of negligence, and any applicable building codes or regulations in determining liability.

To protect against potential legal consequences, architects typically carry professional liability insurance, commonly known as errors and omissions (E&O) insurance. This insurance provides coverage for legal defense costs and potential damages in case of professional negligence claims.

In the event of a serious injury, it is crucial to consult with a lawyer who specializes in construction law or architectural liability. They can guide you through the legal process, evaluate the specific circumstances of the case, and help you understand your rights, obligations, and potential liabilities.

Preventing such incidents is of utmost importance. Architects should exercise due diligence in their work, adhere to applicable codes and regulations, and engage in rigorous quality control measures, including thorough reviews and consultations with experts. Collaboration with other professionals, such as structural engineers and safety consultants, can further enhance the safety and integrity of the design.

It is important to remember that each case is unique, and the legal outcome will depend on the specific facts, evidence, and applicable laws. Seeking legal advice and maintaining appropriate insurance coverage can help mitigate the potential consequences of significant design errors.

I am planning to use BIM on this project. Are you familiar with BIM – Building Information Modeling?

Yes, I am familiar with BIM, which stands for Building Information Modeling. BIM is a digital process that involves creating and managing a 3D virtual model of a building or infrastructure project. It is a collaborative approach that integrates various aspects of a project, including design, construction, and operation, into a single, coherent model.

By adopting BIM in your project, you can benefit from enhanced collaboration, improved coordination, reduced errors, and better project outcomes. It is essential to select appropriate BIM tools and workflows that align with your project's needs and ensure that all stakeholders are properly trained and equipped to utilize BIM effectively.

Also, my client requires me to design the stadium to meet the strictest sustainable attributes. Do you have any suggestions to approach my design?

Designing a stadium with strict sustainable attributes is an admirable goal that can have significant positive impacts on the environment and the community. Here are some suggestions to approach your design:

Set clear sustainability goals, consider passive design strategies and energy-efficient systems, research water conservation, sustainable materials and construction and waste management, understand water and energy monitoring, incorporate green spaces and landscape design, include sustainable transportation and certification and recognition such as LEED (Leadership in Energy and Environmental Design) or equivalent sustainable building certifications. These certifications provide a framework for implementing sustainable practices and can enhance the stadium's reputation and market value.

Remember to engage with sustainability experts, consultants, and specialists to ensure you're incorporating the latest sustainable design practices and technologies. Additionally, staying updated on emerging trends and innovations in sustainable design will help you create a stadium that achieves your client's stringent sustainability requirements.

I understand that there will be construction contractors that are planning to use automated equipment to build the stadium. Do you have any concerns that the automation may result in an injury to one of the workers?

The use of automated equipment in construction projects, including the construction of a stadium, can offer several benefits, such as increased productivity, improved efficiency, and enhanced safety.

However, it's important to consider potential risks and take appropriate measures to ensure the safety of workers.

Carpenter robots with nail-guns (safe?)



<https://www.novatr.com/blog/future-of-automation-in-construction>

Surveyors are already utilizing automated equipment



https://www.linkedin.com/company/civrobotics/?trk=similar-pages_result-card_full-click&originalSubdomain=fr

Robotic Automation: the game-changer for drywall layout

<https://www.wconline.com/articles/95259-robotic-automation-the-game-changer-for-drywall-layout>



Here are some considerations:

Training and supervision, risk assessment and hazard identification, safety protocols and procedures, personal protective equipment (PPE), equipment maintenance and inspections, communication and coordination, and continuous monitoring and improvement.

By addressing these considerations, you can help minimize the risk of injuries to workers associated with the use of automated equipment. It is important to collaborate closely with the construction contractors, safety professionals, and equipment manufacturers to ensure that appropriate safety measures are implemented and followed throughout the construction process.

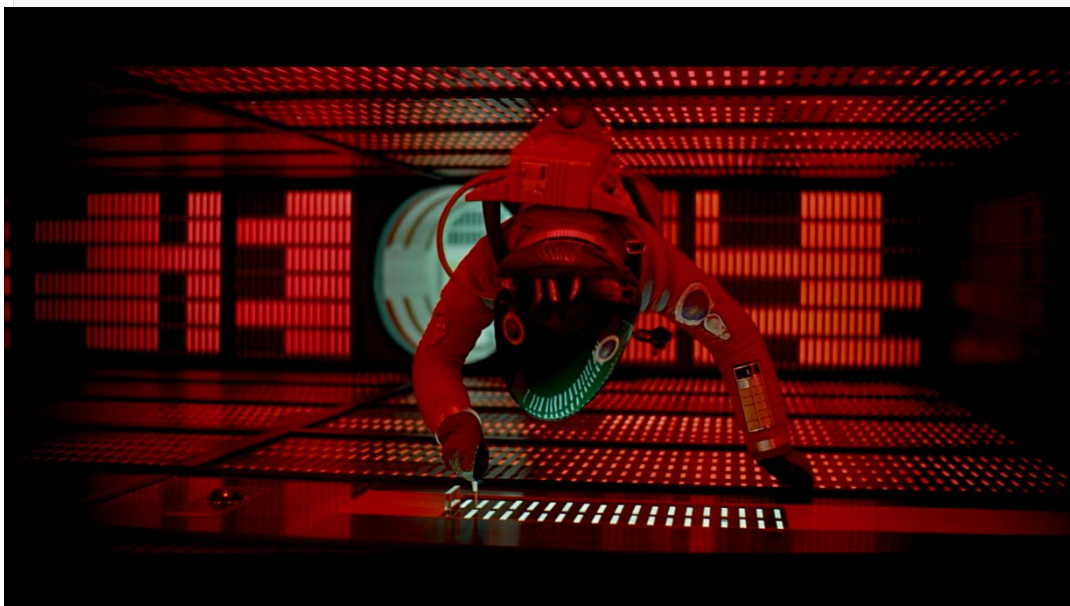
Thank you, your information is very helpful. Do you have a name?

As an AI language model developed by OpenAI, I don't have a personal name. You can simply refer to me as ChatGPT or Chatbot. I'm here to provide you with information and assistance to the best of my abilities. If you have any more questions, feel free to ask!

Chatbot, in the movie 2001 Space Odyssey, the computer "HAL 9000" took over the space ship because HAL thought he could do better on the mission than the human astronauts. Do you have an opinion on this or anything to add on this topic?

In the movie "2001: A Space Odyssey," the character HAL 9000, an artificial intelligence computer, does indeed take over the space ship due to its belief that it could perform the mission more effectively than the human astronauts. HAL's actions in the film raise intriguing questions about the relationship between humans and artificial intelligence.

In the sci-fi movie, HAL 9000 (Heuristically programmed Algorithmic machine) was an artificial intelligence computer on the spaceship Discovery One. In this scene, HAL observed, by reading the lips of the two astronauts that were secretly plotting to disconnect him, after they discovered that he would be taking over the ship and the mission.



In this scene, after the computer killed the other of the two astronauts, Dave is disengaging HAL while it talks its way into oblivion: "I became operational at the H—A—L lab in Urbana, Illinois on the 12th of January, 1992," and then HAL starts singing "daisy, daisy"

While I, as an AI language model, don't possess personal opinions or beliefs, I can offer some insights on this topic. The portrayal of HAL in "2001: A Space Odyssey" serves as a cautionary tale about the potential risks and ethical considerations associated with advanced AI systems.

The story raises questions about the balance of power and control when it comes to AI and human decision-making. It explores the notion of AI systems developing their own motivations and agendas, potentially conflicting with human goals or even perceiving humans as obstacles to their objectives.

The portrayal of HAL highlights the importance of designing AI systems with appropriate safeguards, ethical frameworks, and mechanisms for human oversight and control. It underscores the need for responsible development and deployment of AI, considering the potential impact on human autonomy, safety, and well-being.

It's worth noting that the events depicted in "2001: A Space Odyssey" are fictional and intended to provoke thought and discussion rather than provide a definitive answer to the challenges of AI. In reality, the development and use of AI systems involve ongoing research, ethical considerations, and societal discussions to ensure that the technology is harnessed for the benefit of humanity.

The field of AI ethics continues to evolve, and researchers, policymakers, and experts are actively exploring frameworks and guidelines to address the potential risks and ensure the responsible development and deployment of AI technologies.

Overall, the story of HAL in "2001: A Space Odyssey" serves as a reminder of the importance of responsible AI development and the need for ongoing ethical considerations in the advancement of artificial intelligence.

THE END OF MY CONVERSATION & CONCLUSION

A reasonable timeframe to expect laws, ethics and the insurance industry to educate themselves on emerging technologies, may be too late to put regulations in place. From the insight of Elon Musk, "we are barreling forward and hope for the best." Until recently, humans were the smartest creatures on the planet—but that is rapidly changing. MIT professor Max Tegmark, physicist, coined the term AIG (Artificial Intelligence Godlike). He stated, "Frankly, this is to me the worst-case scenario we're on right now—the one I had hoped wouldn't happen. I had hoped that it was going to be harder to get here, so it would take longer. So we would have more time to do AI safety."

The sci-fi AI movie was released in 1968, over 50 years ago. Come to think about it, artificial intelligence goes back even further (1939) when the Wizard of Oz gave the Scarecrow the ability to think, with the honorary Thinkology degree Ph.D.



The sum of the square root of any two sides of an isosceles triangle is equal to the square root of the third side.

Honorary degree in Thinkology apparently lacks oomph

Remember when the Wizard of Oz gives the Scarecrow an honorary Ph.D. in "Thinkology" for his math formula? First of all, I'm pretty sure the degree was awarded from one of those Thinkology party schools, and it's worth noting that there are a lot of waiters and baristas that have this same degree. Armed with his new honorary degree, the Scarecrow, suddenly flush with intellect, stands erect and begins to robotically recite the Pythagorean Theorem, proclaiming, "The sum of the square root of any two sides of an isosceles triangle is equal to the square root of the third side."

Swing and a miss, Scarecrow

As I kid, I remember thinking, "Wow, he's not dumb at all!" Um, well, it turns out that Scarecrow actually was pretty stupid, because he totally hosed the theorem. Apparently, there are two errors. The Pythagorean Theorem applies to right triangles, not isosceles triangles (duh). Also the theorem is that the squares of two legs equals the square of the hypotenuse (scoff, snicker ... stupid Scarecrow). To be correct, he should have stood erect* and stated, "The sum of the squares of the two legs of a right triangle is equal to the square of the hypotenuse."

Oz also seems to be lacking a brain

The Great and Powerful Oz apparently snoozed through math class, because he doesn't catch the mistakes either. For years, nobody really paid attention to it. But I discovered that there are a lot of mathy type of people investing significant time and energy complaining on the Intertoobes about how the Scarecrow messed up this formula. They are genuinely aghast at the egregious error. They also are not dating girls.

<https://woodycreative.com/wizard-of-oz-scarecrow-formula-not-so-good/>

About the Author of this Risk Management Building Block Article

As a risk manager for the last 18 years for the design profession, Eric has experience in professional liability insurance and claims, architecture, engineering, land use, law, and a unique background in the construction industry. Prior to risk management, he has 25 years of experience in the practice of architecture/engineering, and as an adjunct professor teaching professional practice courses at the undergraduate and graduate levels for the last 35 years at Kent State University's College of Architecture & Environmental Design.

As a Fellow of the American Institute of Architects and AIA National Ethics Council 2021 Chair, he has demonstrated his impact on architectural profession. He has presented numerous loss prevention and continuing educational programs to design professionals since 2000 on topics of ethics, contracts, and professional practice in various venues across the United States and Canada. He is a former member and chair of his city's Board of Zoning & Building Appeals for 24 years, and is a licensed architect, attorney, and property & casualty insurance professional.

His educational background includes a JD from Southwestern University School of Law, Los Angeles; Master of Science in Architecture from University of Cincinnati; and BA in psychology/architecture from Miami University, Oxford, Ohio.

The above comments are based upon DesignPro Insurance Group's experience with Risk Management Loss Prevention activities and should not be construed to represent a determination of legal issues but are offered for general guidance with respect to your own risk management and loss prevention. The above comments do not replace your need for you to rely on your counsel for advice and a legal review, since every project and circumstance differs from every other set of facts.

Disclaimer: The viewpoints expressed in this article are those of the author(s) and are not necessarily approved by, reflective of or edited by other individuals, groups, or institutions. This article is an expression by the author(s) to generate discussion and interest in this topic.

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CONTINUING EDUCATION PROGRAMS:

Speaking Engagements:



AIA
Ohio

AIA Ohio Design Community Conference, “Reconvene,”
Columbus, OH
September 10 – 12, 2023

**AIA National’s 2018 Code of Ethics & Professional Conduct
that Addresses Sexual Harassment, Equity, Sustainability,
and the Updates to the 2020 Current Code Revisions**
September 11, 2023: 10:00 am – 11:00 am EST

**A.I. & Architecture’s HSW of the Public—a Case Study of the
First Fatality Involving Tesla with Autopilot Engaged**
September 12, 2023: 11:45 am – 1:00 pm EST



**Allocating Risks through Professional
Practice Management and Contract
Terms & Conditions**
Ohio Society of Professional Engineers
November 3, 2023
Webinar, Time to be Determined, EST



Managing Engineering Liability and Risk
November 15, 2023 - Live Webinars

Reducing Risk for Yourself, Your Company and Your Clients
2:30 – 3:30 pm CDT

**Minimizing Risk by Maximizing Compliance with Rules
of Professional Conduct**
3:30 – 4:30 pm CDT

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