



High Exposure from High-Tech: Preparing for Legal Risks

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Topics

- “Wearables”
- Artificial Intelligence / Smart Contracts
- Drones
- Green/Innovative Materials
- Cloud Computing

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Legal Implications of Wearable Technology and Smart Contracts

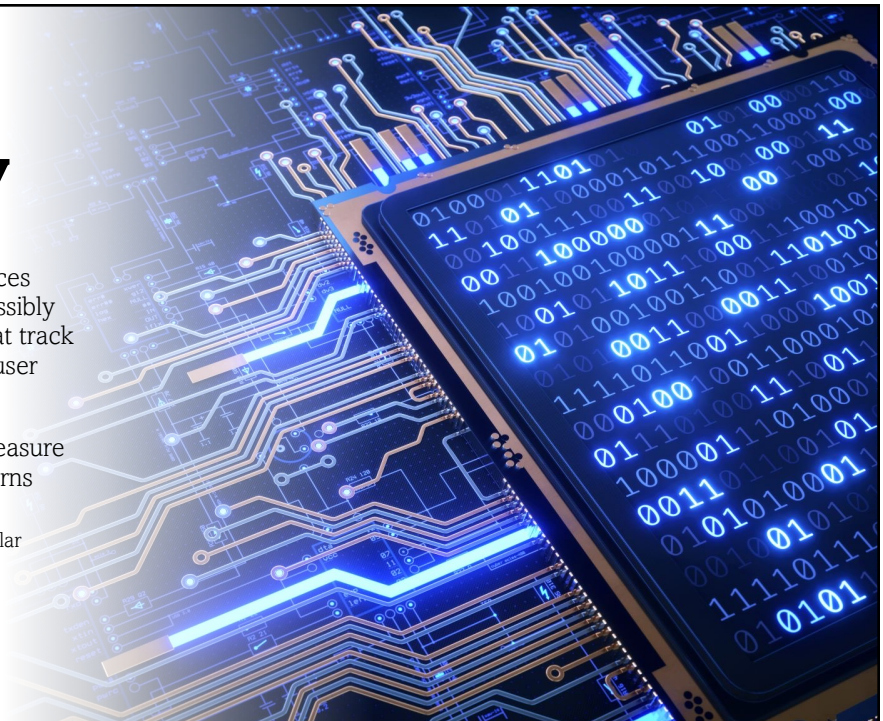
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Wearable Technology

- Generic definition – Devices carried or worn on (or possibly embedded into) a user that track and store data about the user
- Data from sensors can measure location, movement patterns and vital signs
 - e.g. My dog's "Whistle" collar



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Wearable Technology

- Construction industry examples, include hard hats with sensors, boots and vests connected to the cloud, smartwatches, and virtual reality headsets
- Why would a construction company want to provide it's employees with wearables???

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Wearable Technology

- Detect and warn about safety hazards
 - One in five worker deaths in the U.S. are related to the construction industry
 - U.S. Bureau of Labor Statistics
 - Leading cause of death are falls, then being struck by an object, electrocuted, excavation hazards, and natural causes during work (e.g. heart attack)
 - How can wearables reduce these events?

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Wearable Technology

- Identify the location of personnel
 - e.g. A device can act as a digital fence to warn people if they are too close to a hazard
- Track human biometrics
 - e.g. a smart watch or hard hat can track heart rates, fatigue levels, and even lifting habits
- Wearables can also track productivity
 - Keep track of number of workers and/or hours on a particular jobsite

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Legal Implications of Wearables

- Thoughts from the audience on the legal implications??

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Legal Implications of Wearables

- Can employers mandate the use of wearables?
 - (hint – ‘yes’, subject to collective bargaining in the union setting)
 - But need a policy
- Provides data that can impact worker’s compensation claims and human resource decisions
- Liability for safety hazard detection
 - Workers come to rely on wearables and what happens if they fail to detect a hazard?

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Legal Implications of Wearables

- Privacy and Data Issues
 - Getting consent
 - Data security becomes critical (and expensive)
 - Need a policy
- Wage and Hour Issues
 - Can be used to track hours
 - But need a policy as to when a wearable is required to be worn/turned on
- Conclusion – Be thoughtful and have a policy in place

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Artificial Intelligence and Smart Contracts

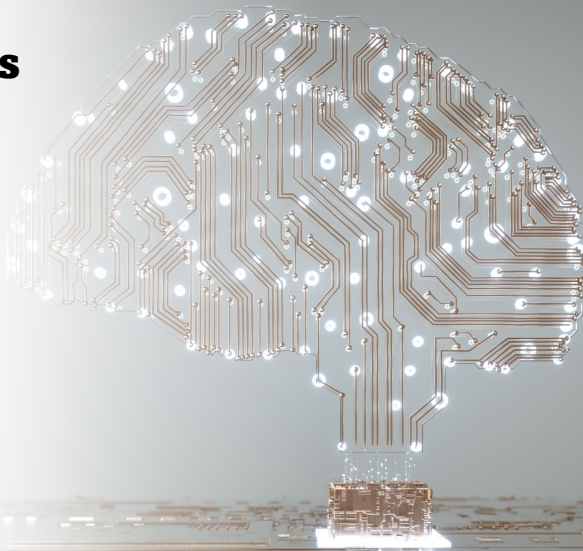
- The construction industry has been an early adopter of artificial intelligence and machine learning
 - The use of algorithms to process data and simulate human intelligence
- Building Information Modeling (BIM) is a widely-used example
- Smart contracts aren't as wide-spread (yet), but they are used in the industry and present several legal issues to consider



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Smart Contracts

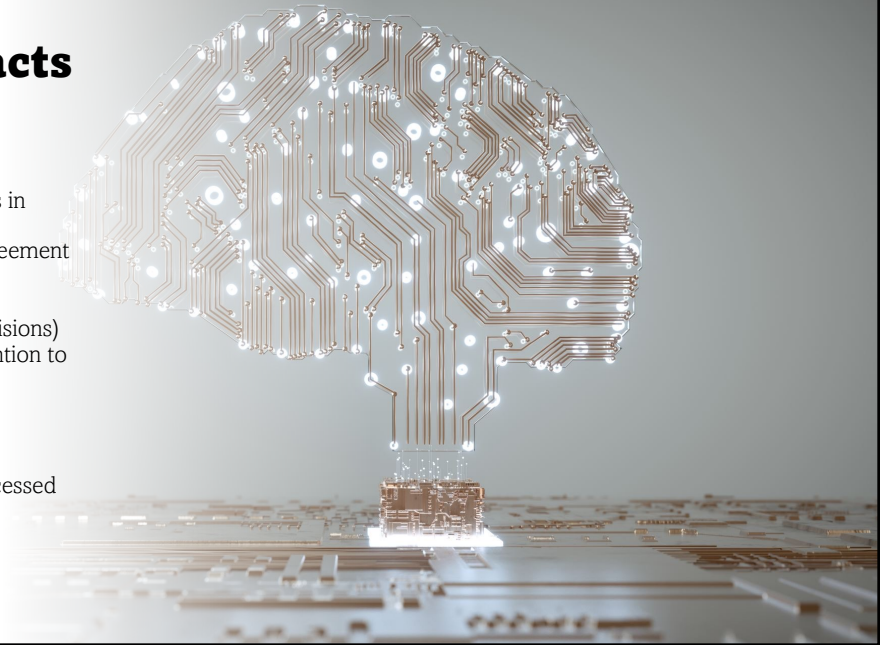
- Use computer code that can automatically execute some or all components of an agreement
- Typically stored on a blockchain-based platform



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Smart Contracts

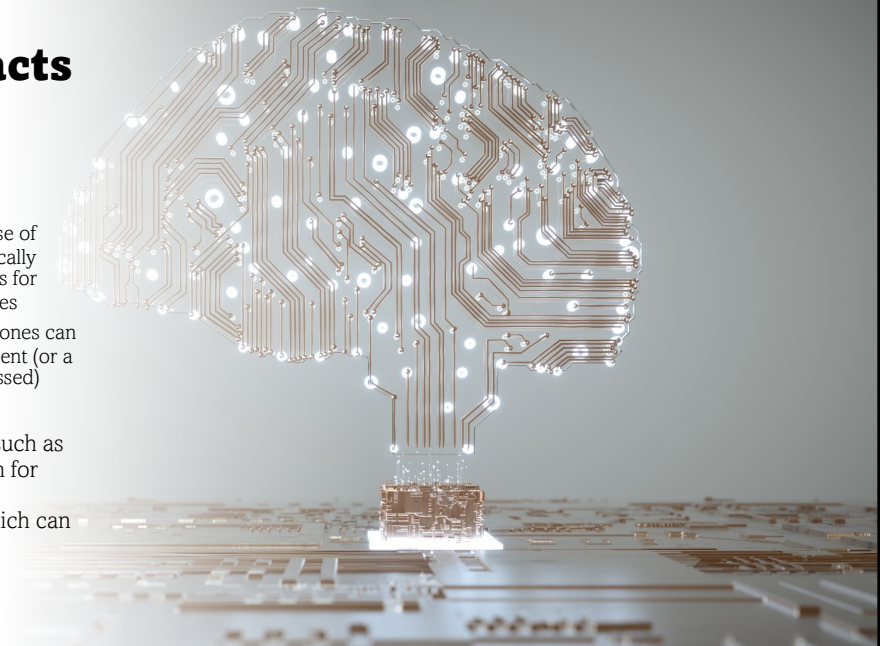
- Similar to standard contracts in terms of the rights and responsibilities within an agreement
- But smart contracts (or provisions) don't require human intervention to execute or enforce terms
- Contractual obligations are automatically enforced/processed



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Smart Contracts

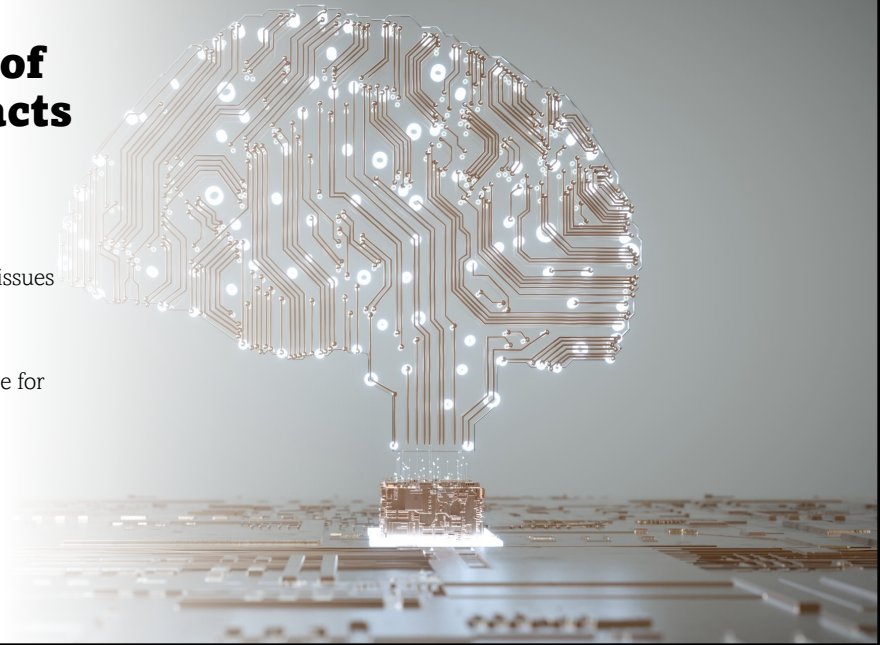
- For example:
 - Reaching a particular phase of construction can automatically trigger the ordering process for materials for the next phases
 - Reaching scheduled milestones can automatically trigger payment (or a deduct if a milestone is missed)
- There are obvious benefits, such as streamlining the supply chain for materials and expediting the payment process, both of which can reduce labor costs



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Legal Implications of Smart Contracts

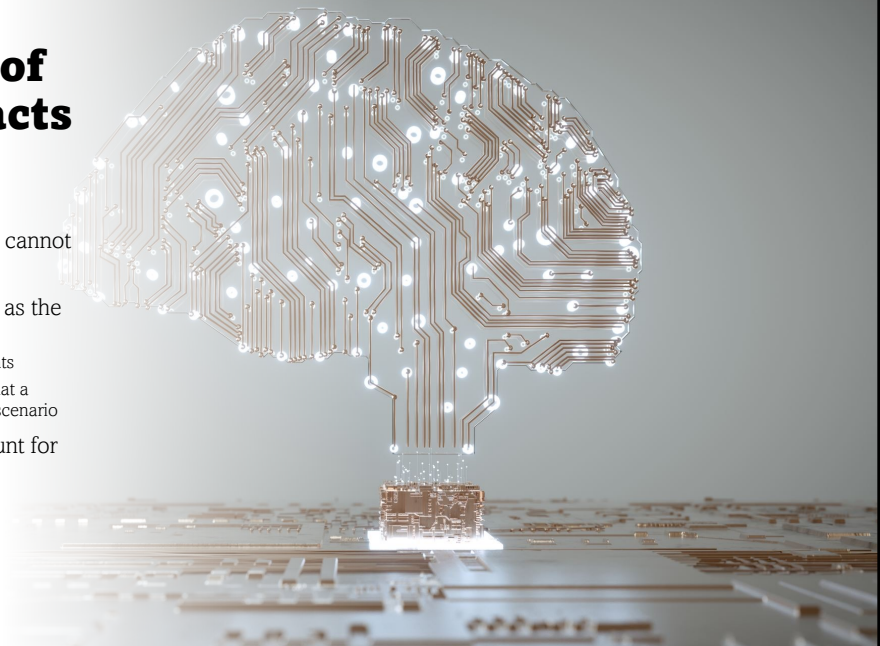
- But there are risks and legal issues raised
- What legal issues does it raise for you??



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Legal Implications of Smart Contracts

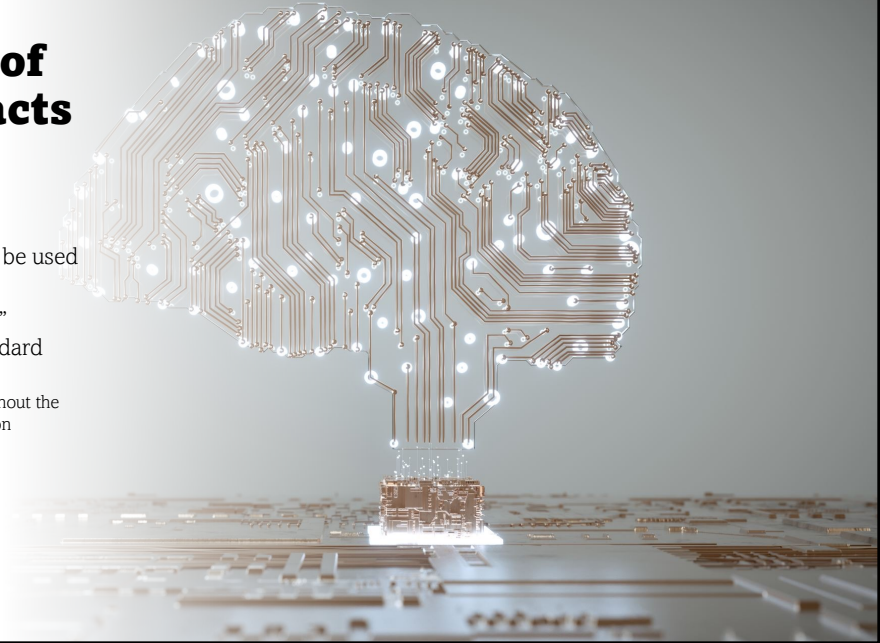
- Data shared on a blockchain cannot be altered or modified
- The contract is only as good as the code that created it
 - - a series of "if/then" statements
 - So, it is possible, if not likely, that a drafter will not think of every scenario
- e.g. It can't necessarily account for the reasons that a particular milestone is reached
- It can't employ discretion



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Legal Implications of Smart Contracts

- Hybrid agreements can be used
- Where there are “smart” provisions within a standard contract
 - Can get the benefits without the constraints of automation



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Legal Implications of Wearable Technology and Smart Contracts

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Drones, Green/Innovative Materials, and Cloud Computing



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Drones

Uses

- Surveying and Site Visualization
- Remote Monitoring and Surveillance
- Inspection
- Investigation



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Risks



Drones pose a variety of unique risks to contractors, including but not limited to:

- Falling Hazards
- Nuisance and invasion of privacy
- Regulatory and statutory violations
- Breach of contract / Liability for others

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Insurance Issues

Problem: Unmanned Aircraft Exclusions

Solution:

1. Purchase drone liability insurance
2. Review your contracts with drone operators to make sure they have drone insurance

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Drone Laws

Problem: Negligence *per se* for violating drone laws, and other fines

Solution:

1. Know the application drone operation laws. Some examples include:
 - Minnesota Statute 360.59 (licensing requirement for commercial drones) and 360.60 (drone registration requirement)
 - Federal Aviation Administration, Part 107
 - Municipal permit laws
1. Make sure operators are licensed and are checking in that they are complying with applicable laws

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Civil Liability

Problem: Your failure to understand drone laws, operate drones safely, and properly supervise the use of drones can create liability for owners, yourself or other interested parties

Types of liability: negligence, strict liability, nuisance and trespass / invasion of privacy, breach of contract

Solutions:

1. Disclose your intent to use drones, and the plan for using drones
2. Get permission for drone use and drone use plans
3. Make sure your contracts address the use of drones (i.e., Make sure a drone operator is obligated to defend, indemnify, and hold you harmless for any claims that arise out of the negligent or illegal operation of drones)
4. Make sure drone operators are trained and properly licensed
5. Post warnings and have waivers signed
6. Make sure contracts

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Green/Innovative Building Materials

**“The newer the
product the greater
the risk”**

- Famous last words of a deposition
witness



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Risks with Green/Innovative Materials

- Blame-shifting for underperformance of product
- Liability arising from unfamiliarity with product and product requirements
- Exposure not protected by contract and insurance

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Blame-Shifting

Problem: Someone must fall on the sword for problems that arise out of the use of new green/innovative materials. That someone is rarely the owner, who may require the use of green/innovative materials

Solution:

1. Be honest about your team's experience with the green/innovative material
2. Disclose concerns with the green/innovative material in writing to the owner or owner's representative
3. Train and familiarize

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Unfamiliarity with Materials

Problem: Unfamiliarity with materials and material-related requirements can lead to claims

Solutions:

1. Take exhaustive steps to make sure the manufacturer has provided you with all the necessary literature and training. Pass this information to your representatives, the architect, and the owner's representatives
1. Actually take the time to train and under material-related requirements
1. Make sure your insurance and/or contracts protect you from materials-related claims.

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Unique Contract Issues

- If you are ordering the green/innovative materials, review the vendor contract and make sure you are not waiving your right to make claims, amongst other things. You may also consider defense and indemnity provisions
- Do your upstream contracts protect you from delay claims caused by the green/innovative materials?
- Are your concerns about green/innovative materials addressed in your contracts, generally speaking? (i.e., tailored provisions about the risks posted by green/innovative materials)



Unique Insurance Issues

- Are hazards posed by the green/innovative materials covered, and not excluded?
- Are you ok with the limits of coverage?
- How are you protected from delay claims? Owner may be protected under a builders' risk policy or via a bond. Contractors might not be covered under their commercial general liability policy – so investigate endorsements, extensions, and contractual protections.



Cloud Computing

What is “cloud computing”? It is the ability to store and access data over the internet.

Why would I use cloud computing? It is great for sharing project data with the parties involved.

- Sharing documents
- Editing documents over the internet
- Chat
- Saving cost and time on sending data and documents back and forth, and in-person meetings



Cloud Computing Risks

Two primary risks:

1. Account hijacking
2. Data leakage / breach



Consequences of Hijacking, and Leakage, and Breach

Hijacking

- Delays caused by negotiations with hijackers.
- Payouts.
- Fights over reimbursements.
- Breach of contract claims.

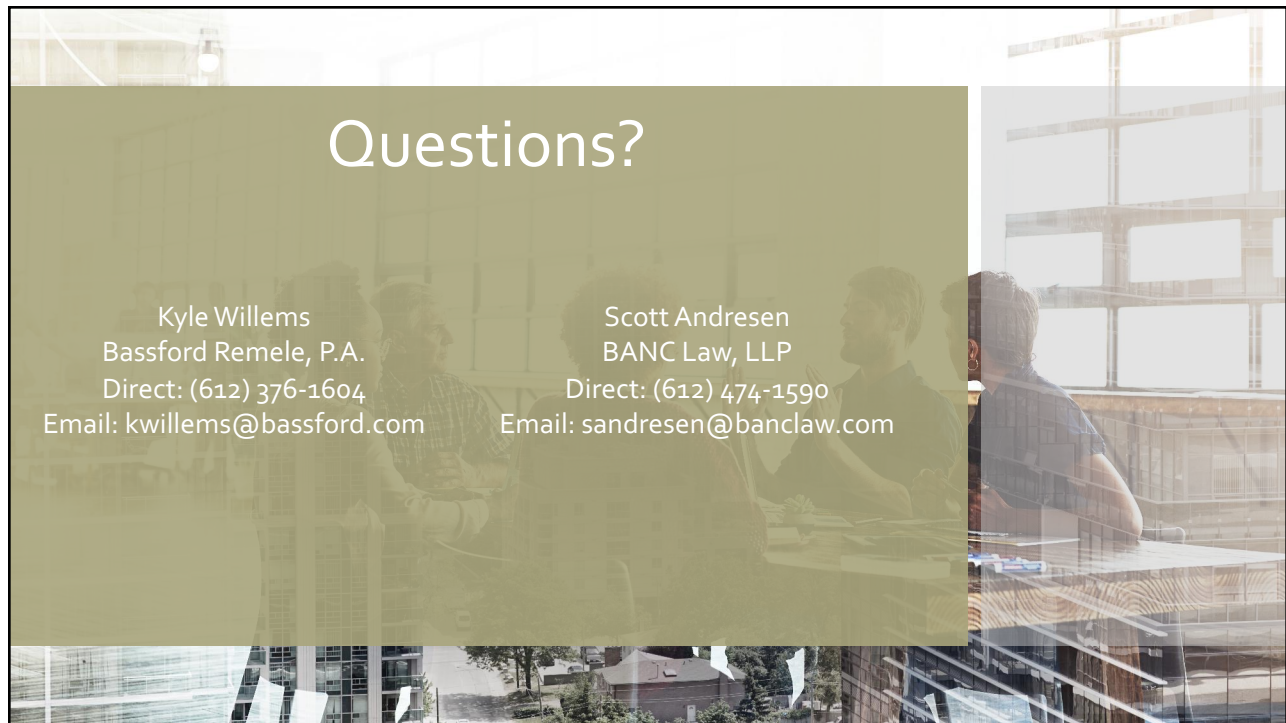
Leakage and Breach

- Breach of contract / suits for disclosure of proprietary information
- Damaged business relationships
- Violations of state and federal laws



Cloud Computing Risk Mitigation

- Encryption / Two-Step Authentication
- Strong passwords
- Limited access
- User education
- Contractual protections (i.e., liability waivers)
- Liability passed through to SaaS companies
- Insurance:
 - Does your CGL provide coverage?
 - Do you need cyber insurance?
 - Does your vendor have sufficient insurance?



Questions?

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