

# The Age of Construction AI

# Overview

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- Types of AI
- Players in Construction AI
- Gameday Ready Solutions for Practical Use Cases
- Considerations & Wrap Up
- *Appendix: About BBI*

An aerial, high-angle photograph of a large-scale construction site. The entire scene is dominated by a complex, multi-level network of metal scaffolding that covers the building's footprint. Numerous construction workers, identifiable by their hard hats and safety vests, are scattered throughout the site, some standing on different levels of the scaffolding, others on the ground. The ground is a mix of dirt, concrete, and various construction materials like pipes and beams. The overall color palette is a monochromatic blue-grey, giving it a technical and industrial feel. The text 'Types of AI' is overlaid on the left side of the image.

# Types of AI

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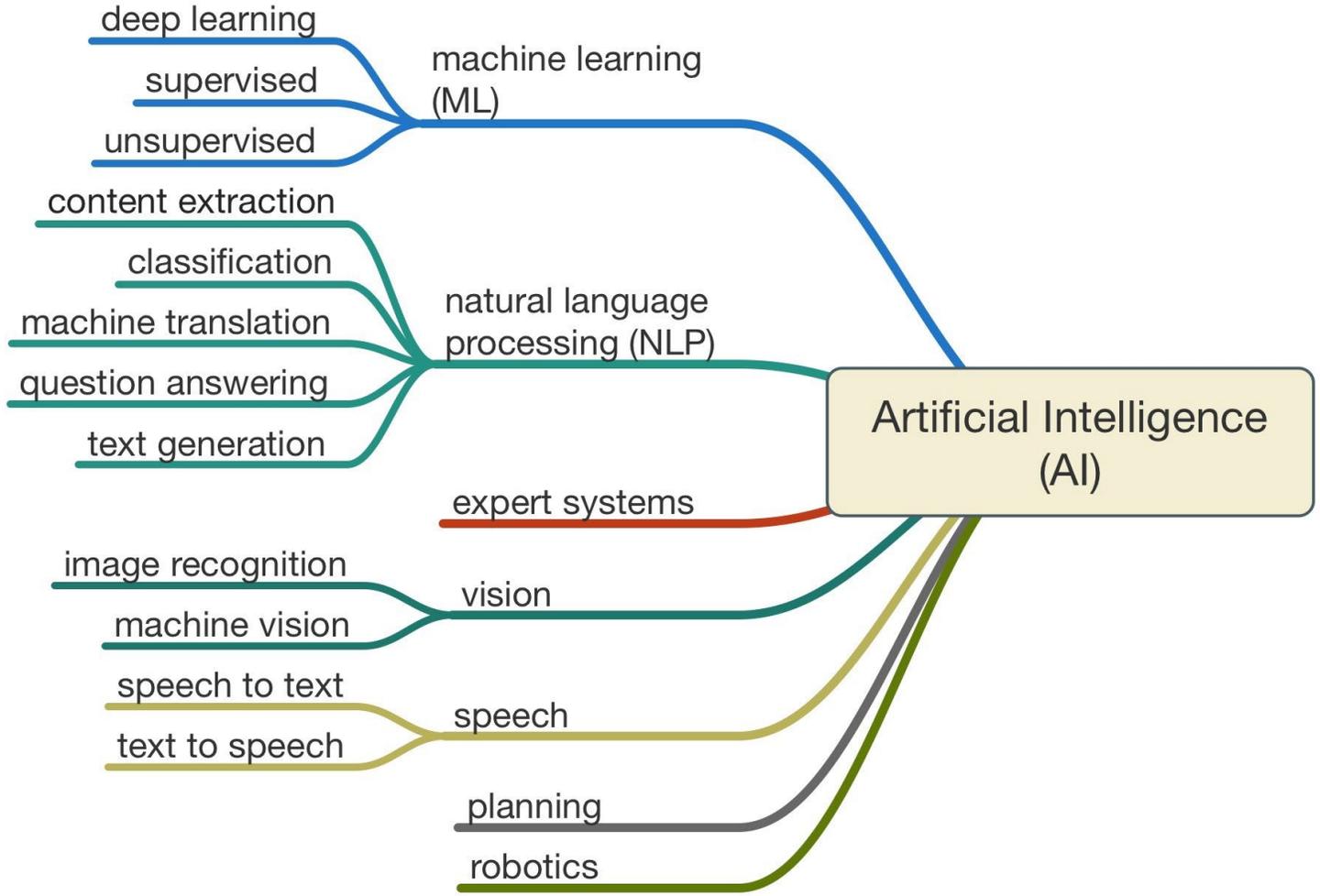
# Types of AI – Many Answers

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## Simplest Categories

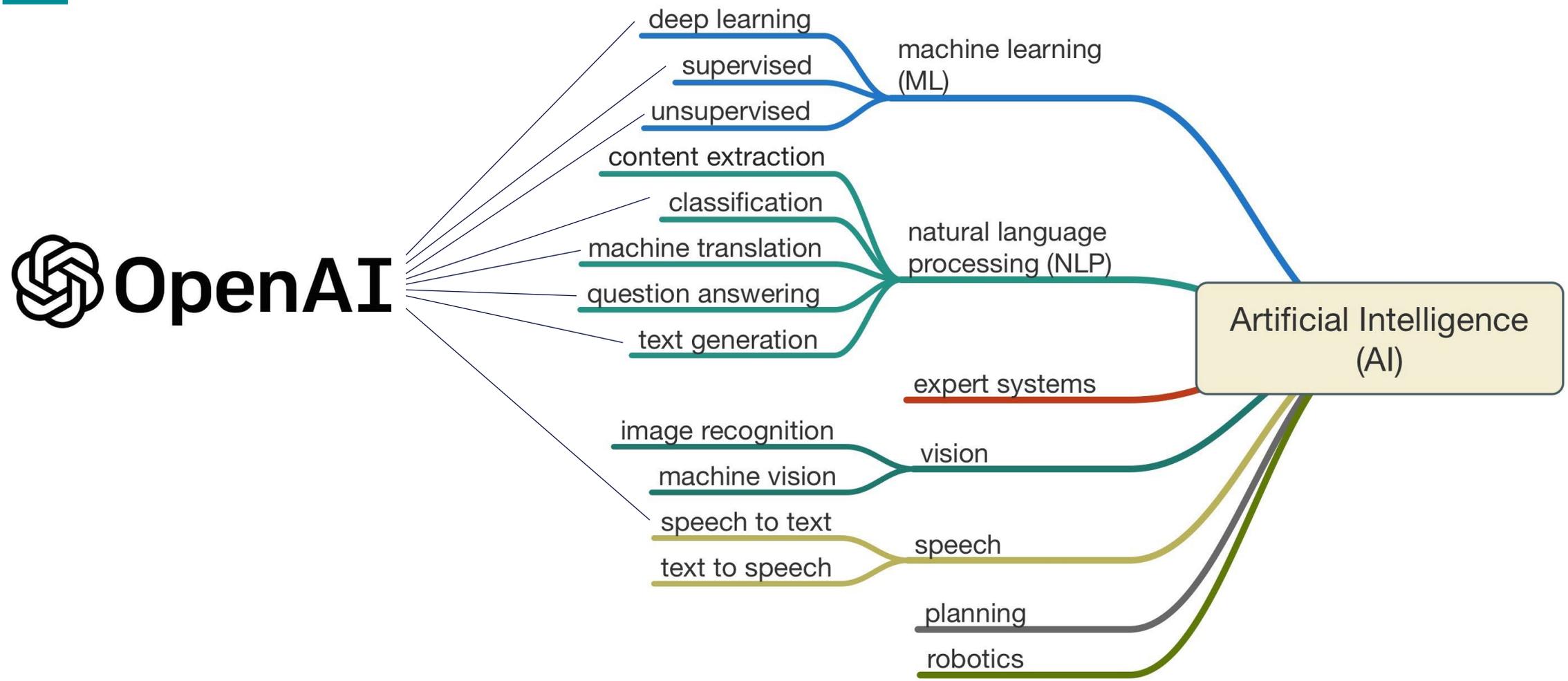
- Expert Systems
- Natural language processing (NLP)
- Machine learning (ML)
- Deep learning (often times classified as a subset of ML)
- Robotics

# Types of AI – A better explanation, but still complex

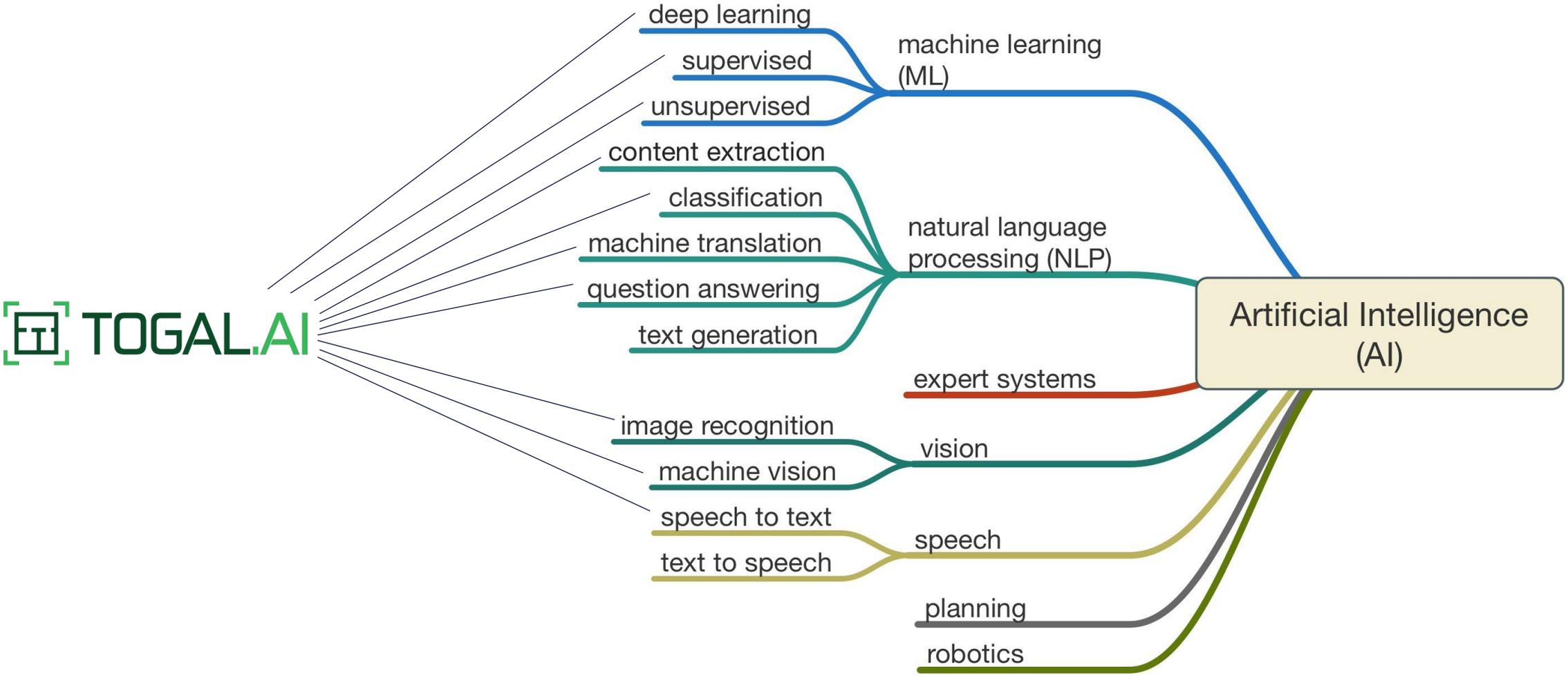


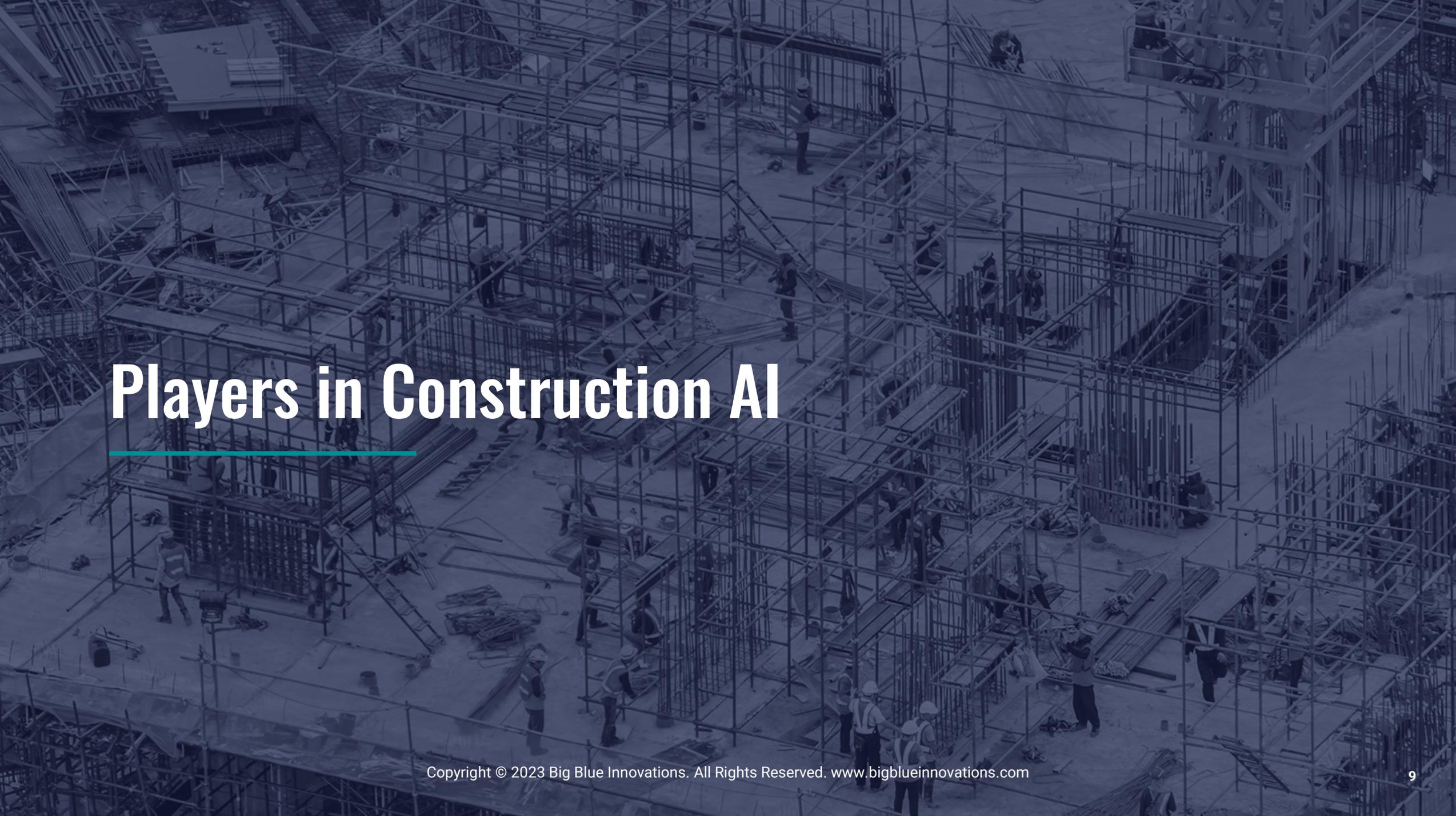


# Types of AI – A better explanation, but still complex



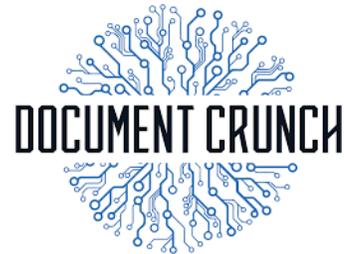
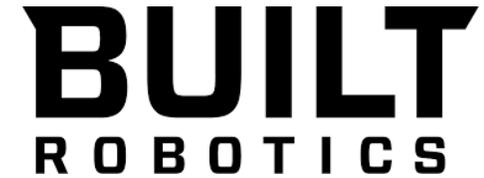
# Types of AI – A better explanation, but still complex



An aerial, high-angle photograph of a large-scale construction project. The entire scene is dominated by a complex, multi-level network of metal scaffolding that covers the building's footprint. Numerous construction workers, identifiable by their hard hats and safety vests, are scattered throughout the site, some standing on different levels of the scaffolding. The ground is a mix of concrete slabs and dirt, with various construction materials and equipment visible. The overall color palette is a monochromatic blue-grey, giving it a professional and industrial feel. The text 'Players in Construction AI' is overlaid in the center-left area in a clean, white, sans-serif font, with a thin teal horizontal line underneath the word 'Players'.

# Players in Construction AI

# Players in Construction AI (there are many more)



# Players in Construction AI (some arguably not AEC)

**CONCEPT DESIGN & PROGRAMMING**

**DESIGN**

**PROPTECH**

- Flythroughs
- Luke
- Elise
- Getfloorplan

**DESIGN CREATION**

- NVIDIA Canvas
- Adobe Firefly
- Midjourney
- Canva AI
- DALL-E 3
- LookX
- Image Computer
- Mokker
- Deepblocks
- Josh.ai
- Local Logic
- Earlybuild
- Cohom
- Stable Diffusion
- VERAS
- Uizard
- Interior AI
- mnm.ai
- BlueWillow
- LatentLabs

**GENERATIVE DESIGN**

- ARK
- CityBldr
- CITYPLAIN
- Digital Blue
- Foam
- Omrt
- Conix
- TestFit
- Forma
- Parafin3D
- Consigli
- Outline AI
- Architectures
- Archistar
- PassiveLogic

**CONCLUSION** Design and Architecture are completely different than they were a year ago. The ability to visualize your ideas quickly, create and edit your renders, iterate designs, make spatial analyses, easily access urban planning tools - the possibilities are vast. And we are just getting started...

**DETAIL DESIGN & ENGINEERING**

**EXPAND**

**BUILDING DESIGN**

- Augmenta
- Hypar
- BricsCAD BIM
- Finch3D
- Forma
- Modulous
- Parallelo

**CALCULATIONS**

- Plotto
- PlanFinder
- AECforward
- DAISY AI
- Pathw.ai
- Structure Plus

**CONCLUSION** BIM is about to have a revolution. The data is being used in various ways: to automate building design, generate floor plans, or even text prompt your way to the BIM model - almost unbelievable! As for the engineers - AI can help you find the best solution immediately - how great is that?

# Players in Construction AI (some arguably not AEC)

**DOCUMENTATION & SPECIFICATION**

**SPECIFY**

**AI-DRIVEN**

**FUTURE-PROOF**

SWAPP, Blueprints AI, Modumate, Aurivus, Archilyse, Mosaio, Stylib, Planner5D, Higharc, Snaptrude, Arcol, Infurnia, Qonic, BlenderBIM

**CONCLUSION** You have your design ready, and you just need to create drawings - automated construction documentation surely sounds like what you might need! Moreover, finding the BIM tool of the future, stable, flexible, and powerful is surely something we all could use more of. AI is here to stay!

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**CONSTRUCTION & SURVEYING**

**DEPLOY**

**CONSTRUCTION**

**SURVEYING**

Need2Say, Sparkel, StructShare, Slate AI, Disperse, Buildots, OpenSpace, Imerse, Cyvl.ai, Neuralangelo, AirWorks, Lèpei AI, Versatile, Constru, SmartBarrel, Naska.ai, Doxel, viAct, StructionSite, Construction IQ, Luma AI, Strayos, Syte, Kreo

**CONCLUSION** AI is making construction smarter. Comparing your as-built BIM models with the building site, expecting clashes, or being able to see how well your plan is holding up, are just some of the tasks these tools can do - and the power of being able to turn your scans into BIM... AMAZING!

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**GENERAL & STAGE-INDEPENDENT**

**ASSIST**

Bard, ChatGPT, MS Copilot, ChatwithData.ai, Quivr, eesel AI, Civil.ai, Plannerly, CADSOMA, ADDD, G-Prompter, Help Kit, Arrow, Snipo

**CONCLUSION** Finding the right answer in the right format, talking with your data, making your workflows smarter and your tasks faster is unbelievably life-changing. Imagine all the hours saved, all the databases alleviated, and the ability to find just what you need much quicker... AI is that great!

# Ascentage

Market Update

Technology for the Built Environment

September 2023



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# Spotlight – Construction Automation (1 of 3)

Construction Automation Solutions Taking Numerous Forms from Robotics to Drones and Autonomous Vehicles to Offsite/Modular

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	Inspection/QA and Layout	Onsite Construction	Offsite Construction
Vertical Construction/ Buildings	Boston Dynamics DOXEL hp Robotics and Reality Capture OPENSOURCE RECONSTRUCT DUSTY ROBOTICS RUGGED ROBOTICS	CANVAS HILTI INTSITE POWERED BY AI Robotics KEWAZO RAISE ROBOTICS ToggleRobotics™ UltraWis urban machine	ASSEMBLY OSM blokable™ BotBuilt® BOXABL Branch TECHNOLOGY CONXTech CRATE Diamond Age Factory_OS™ GROPYUS Robotic Enabled Modular Construction and 3D Printing
Horizontal Construction/ Infrastructure	AIRWORKS civ ROBOTICS DroneDeploy Drones and Drone-Enabled Software Skydio SKYCATCH wingtra TinyMobileRobots®	ADVANCED Construction ROBOTICS BUILT ROBOTICS Autonomous Vehicles and Robotics SafeAI® Teleo	ICON Mighty Buildings NEXII plant PREFAB Prescient® TopHat veev™ VESTA MODULAR

# Sources and Disclosures

Ascentage Advisors, LLC



## Sources and Notes

### Data Sources

1. Pitchbook
2. LinkedIn
3. Public company releases, filings, and earnings transcripts

### Company References

1. Miscellaneous company and press releases

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An aerial, high-angle photograph of a large-scale construction site. The entire scene is dominated by a complex, multi-level network of metal scaffolding that covers the ground and rises into the air. Numerous construction workers, wearing hard hats and safety vests, are scattered throughout the site, some standing on the scaffolding and others on the ground. The background shows the skeletal structure of a building under construction, with concrete walls and rebar visible. The overall color palette is a monochromatic blue-grey, giving it a professional and industrial feel.

# Gameday Ready Solutions for Practical Use Cases

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# Players in Construction AI (there are many more)



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# Considerations & Wrap Up

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# Considerations

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- Don't chase shiny objects.
- Have a defined need (or interest) and research solutions.
- Be mindful of data ownership and data privacy.
- Qualify, or at least acknowledge, the accuracy of the output (or lack of accuracy).
- Today, there is no such thing as synthetic wisdom. We aren't there yet.
- AI is here. More will come. It is important to determine the logical and beneficial ways to incorporate it into your business.

# Questions?

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# ABOUT US

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A Note from  
**Jay Snyder**  
President & Principal of Big Blue Innovations

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I am incredibly proud to stand with the construction industry for the past two decades. I grew up in this industry among general contractors, trade contractors, owners, developers, manufacturers, inspectors, service providers, and technology companies. No other industry is as close knit, yet as incredibly competitive, as construction. Few places have as much camaraderie, dedication, and appreciation for each other. Some say the industry hasn't evolved and that it lags in leveraging technology. While we should be solving more of our challenges with technology, this industry has

evolved greatly. From the steam shovels of the early 1900's to hydraulic excavators and autonomous graders, from blueprints to BIM, from plaster to self healing concrete – **THIS INDUSTRY KNOWS HOW TO EVOLVE.**

Having been in project management and having overseen construction operations, I am proud. Our team is proud. This industry fulfills us. Big Blue Innovations' expertise, at the seam of business, operations and technology, is powerful. Our ability to advise across people, process, technology and data, to maximize your results with

technology are unique because our team is unique. Our work is not done until our team and yours are equally energized about the outcomes we create. As contractors, technology is one of your top three operating expenses. We want to ensure that every dollar spent on technology is worth it, and producing results. Let us help you navigate through the landmines and fog, to propel your growth in an industry that builds greatness.

# About Us

## Mission

We exist to catapult lasting growth in technology companies and empower contractors to leverage impactful technologies that improve business and project performance.

## Main Service Offerings



Contractor  
Business Modernization  
and Technology  
Consulting



Technology  
Startup  
Advising



Corporate  
Development  
Planning

# About BBI



U.S. based firm with staff positioned across the country.



Satellite operations in EMEA.

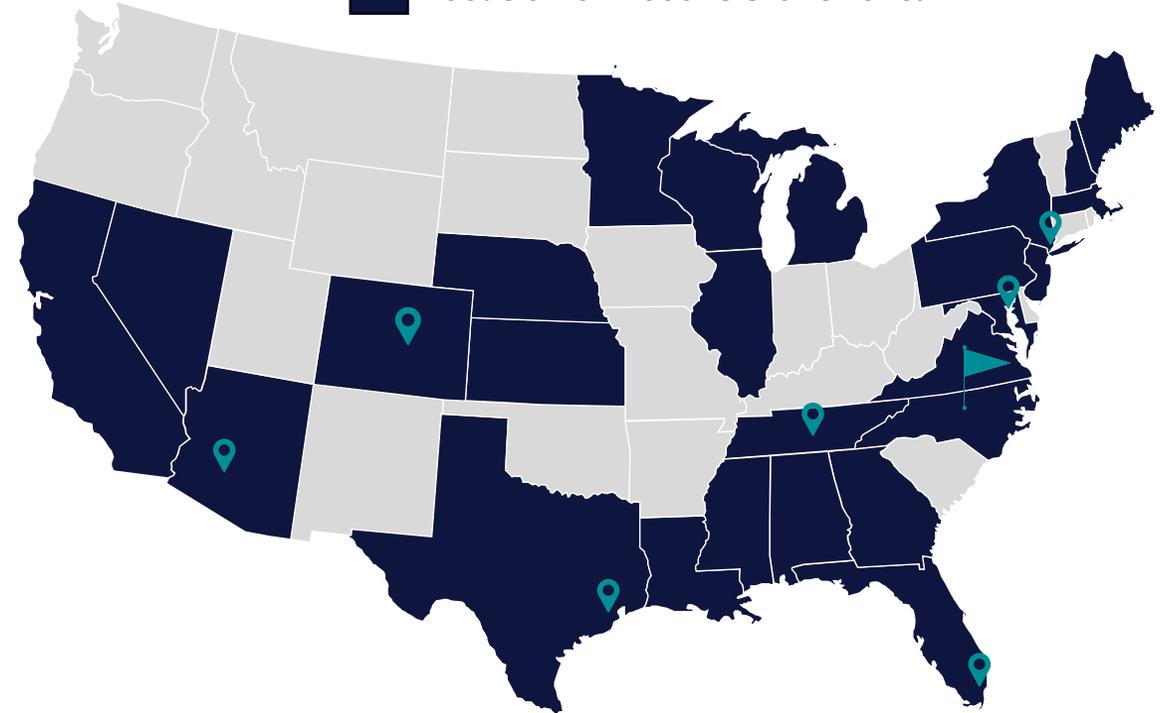


Our firm is led by a former general contractor executive, owner real estate director, and technology entrepreneur.



Certified Veteran Owned Business.

■ Location of Recent U.S. Clients



## Outposts

Austin, Baltimore, Denver, Houston,  
Miami, Nashville, New York City, Phoenix



## Corporate Office

Raleigh, (Cary, NC)

# Services to Construction Companies

Business Modernization, Business & Data Analytics, and Technology advisor to contractors.



## Business Modernization and Optimization

- Executive Advisor
- Post M&A tech integration
- Fractional CTO



## Business & Project Data Analytics

- Data Management Strategy
- Systems & Data Integration
- Data Visualizations & Dashboards
- Business Analytics as a Service



## Technology Advisor

- Technology Assessments & Strategic Planning
- Software Selection
- Software Implementation
- Data Integration

# Contact us to talk more about this or other business transformation and technology topics

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