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Better Decisions and Better Margins with AI Agents

By David Bowcott

For over 20 years, the construction industry has been seriously experimenting with various technologies, equipping jobsites with a digital web of solutions that help reduce risk and improve productivity. These technologies, ranging from the simplest, like email, to more complex, multi-technology integrated project management platforms, generate massive amounts of data. When aggregated, this data represents a tremendous opportunity for every contractor.

What has happened over the past two years to make this aggregated data such a massive opportunity? We now have access to AI models that are approaching artificial general intelligence status, allowing them to analyze contractor data in ways that help leadership make better decisions and significantly improve margins using agentic AI.

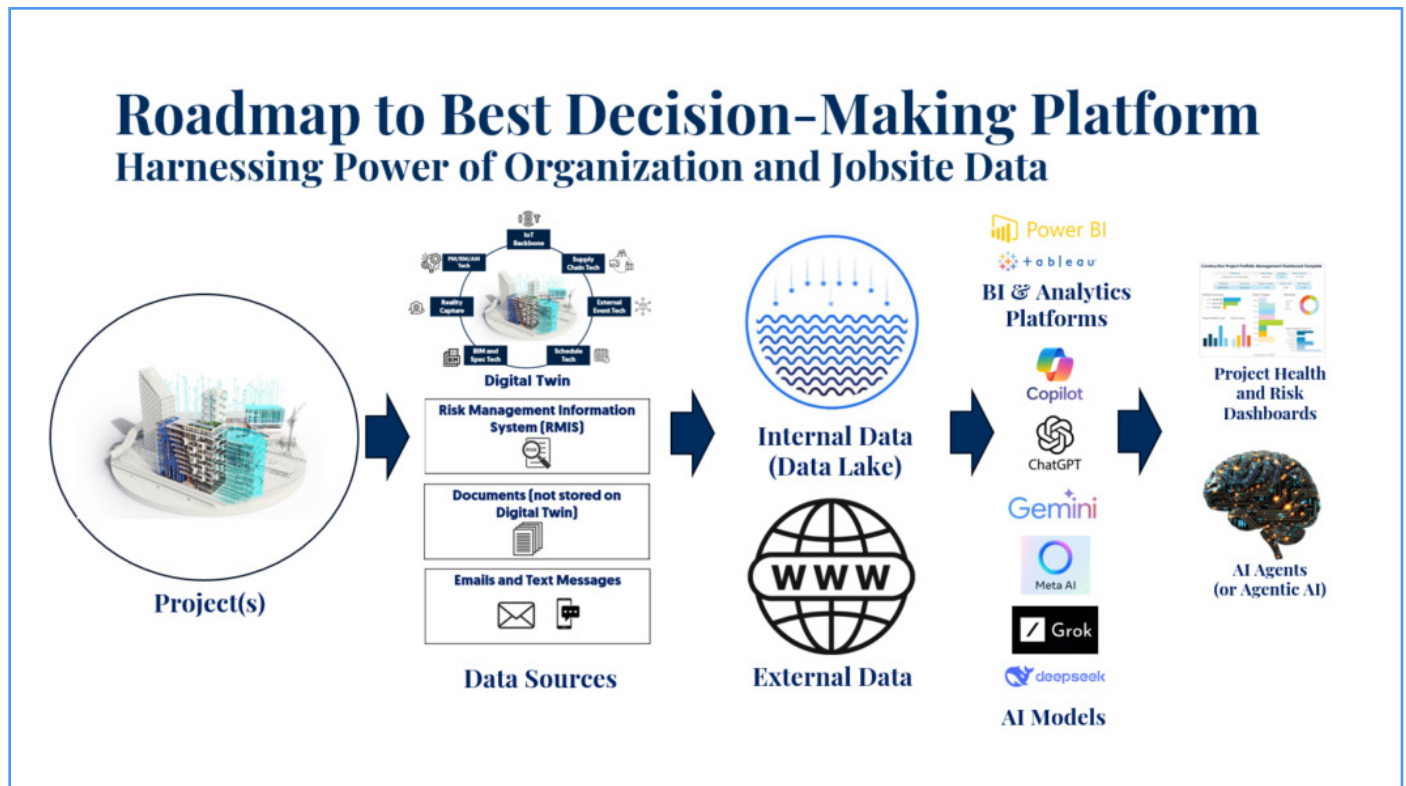
Before we define agentic AI (or AI agents), let's examine

the various data sources generated by contractors and other stakeholders on every project, the digitally captured data that forms the component parts of the digital twin. These data sources include:

1. BIM and Specification Technologies
2. Scheduling Technologies
3. Supply Chain Technologies
4. Project Management Technologies
5. Reality Capture Technologies
6. Internet of Things (IoT) Backbones
7. External Event Monitoring Technologies
8. Risk Management Information System (RMIS) Technologies
9. Digital Documents (not stored in project management technology)
10. Emails and Text Messages

When aggregated into a central location (i.e., a data lake) and properly structured with construction-centric ontologies, this data becomes high-octane fuel for AI models. Once connected to this data, AI models unlock better decisions and improved margins.

The following diagram illustrates how data is aggregated and analyzed to create powerful dashboards and AI agents that complement your workforce:



As noted above, the two primary outputs from a well-organized data lake are dashboards and AI agents. Before advancements in AI, dashboards were the primary reason companies created data lakes—desiloing data proved valuable for generating insights. However, the more powerful and transformative output today is the AI agent (or Agentic AI). An AI agent is a system that acts autonomously toward achieving specific goals by perceiving, reasoning, and taking actions. These agents interact with tools, environments, and other agents and can be applied in several ways:

- **Repetitive and Process-Driven Tasks** – Tasks with clear steps, rules, and standard formats.
- **Knowledge-Intensive and Document-Heavy Tasks** – Work that involves understanding, summarizing, and identifying key components in large amounts of text, such as contract reviews.
- **Tool-Use Tasks** – AI agents interact with external sources to take action, such as confirming deliveries through project management software.

- **Research & Analysis** – AI can analyze internal and external data sources to provide research reports, market analysis, due diligence, and competitor benchmarking.

- **Orchestration and Coordination** – Managing and monitoring workflows across systems or teams.

These are the best current use cases for AI agents, but as models evolve, new applications will emerge. Many of these tasks take up significant amounts of employee time. Studies from McKinsey, IDC, and Coveo estimate that employees spend between 1.8 to 4.2 hours per day searching for and gathering information – 20% to 50% of working hours. This is a substantial cost. Imagine how much margin could be recovered if AI agents handled these tasks instead.

Now that we've outlined the steps and benefits of organizing your data for AI, it's time to consider which construction tasks could benefit most from AI agents. Here are some potential AI agent use cases that could drive better decisions and reduce costs, thereby

improving margins:

- 1. RFI Assistant** – Reads RFIs and routes them to the appropriate party.
- 2. Change Order Tracker** – Reads change orders and updates schedules accordingly.
- 3. Prequal Agent** – Reviews subcontractor qualifications for specific projects based on contract terms and prequalification data.
- 4. Subcontractor Scope Agent** – Ensures subcontractor bids align with the required scope of work.
- 5. Equipment Maintenance Agent** – Manages equipment logs and predicts maintenance needs.
- 6. Safety Agent** – Reviews daily logs, safety checklists, and reality capture data to identify safety risks early.
- 7. Progress Monitoring Agent** – Uses reality capture data and project management insights to track project progress by division.

This is just a selection of existing and potential AI agents that can improve decision-making and margins in construction. AI is transforming industries, and construction is no exception. At a minimum, organizations must start considering how AI will impact them, both positively and negatively. Ignoring this rapidly evolving technology is simply not an option. AI is no longer just a tool of the future, it's a critical asset for today's construction leaders looking to drive efficiency, reduce risk, and improve margins. By harnessing the power of AI agents and structuring your data effectively, your organization can make smarter, faster decisions that lead to better project outcomes.

PLATFORM has entered into partnerships with construction and built environment technologies and consultants to help our clients develop their data and technology strategy. More insurers are starting



to correlate their loss data with some of these data and technology solutions and in some cases are offering substantive improvements in insurance and performance security terms. If you are interested to find out how PLATFORM can help you on your data and technology journey, please don't hesitate to contact us.

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