

Reality Check: Using AI in Construction

Written by: Peter Rifken, Fellow Solutions Consultant, Quickbase

As we look back on 2023, for a lot of businesses across every industry, it was the year of artificial intelligence (AI). There was a lot of talk, a fair amount of hype, some healthy skepticism, and many glimpses into what the future could look like. How much might AI transform the construction industry? In this article on AI in construction, we take a closer look at the areas where AI can make a difference in streamlining project management, bridging the gaps between field and the office, and boosting productivity by reducing unnecessary overhead.

Let's start by determining if AI is right for your business. A lot of small or mid-sized construction companies may think that AI is for larger, global firms managing multibillion-dollar projects. In some ways, this is true; especially if a company is managing a large workforce and is further along in its digital transformation. Though that does not mean small or mid-sized contractors will not benefit from AI. Since AI's capabilities are vast, and are being baked into every business technology, it comes down to understanding what it can and cannot do for your company.

What follows are three ways AI can deliver value to construction companies.

1. ELIMINATE GUESSWORK IN PROJECT MANAGEMENT

The biggest cost sinkholes in construction projects are usually due to missing deadlines. Those project delays – due to labor shortages, unrealistic deadlines, and supply chain hiccups – will add up to costly overruns. This is where AI lends a hand by looking at a contractor's historical data. Based on



analysis of past performance of similar projects, including internal and external factors such as staffing, supplier delays, local and state compliance requirements, inspections, etc., project managers can spot potential issues before they impact scheduling and managing resources.

That is not to say past plans are not useful when developing proposals and managing projects. What's different now, and where AI is taking center stage, is in helping project managers make sense of all the current and historical information they have across the company. The reality is data keeps growing and employees are sitting on mounds of information that are relevant to other teams, but those teams cannot easily find it. With a dynamic work management platform to harness the information, and AI to make it useful, project managers can get the insight they need to more accurately plan and budget.

2. BRIDGE THE GAP BETWEEN JOBSITE DATA AND THE OFFICE

It is hard to believe how many paper forms are still used on jobsites. When workers check in at the trailer to start the day, and site supervisors fill out the daily log at the end of the day, paper forms quickly pile up – and you better hope they don't tear, get wet, or wind up behind a file cabinet. This information either sits in the trailer to be filed away at some future date, or it becomes a burden for the office to manage it. This process is rife with issues stemming from illegible forms, an elevated risk of human error as data is re-keyed, and potential delays in completing compliance forms and payroll.

While many construction companies are moving away from paper processes, replacing them with easy-to-download apps or quickly building their own forms on the fly can also create an expensive disconnect with the office. The information from those apps or digital forms often sits on the devices where they are used. Sure, you can do some heavy lifting to integrate the apps into a specific platform, but making the information easily accessible so the boss can see the big picture on project profitability is still challenging. It often requires manual input and/or reformatting.

Using generative AI, workers are guided through the app-building process with prompts and forms that make them functional in minutes. They are consistent with the company's business processes and instantly flow into a platform making it easy to see project progression without creating unnecessary fixes to make it all fit together.


3. BOOST PRODUCTIVITY BY REDUCING UNNECESSARY ADMIN

Project scope "creep" is pervasive in construction, and it is known as "gray work." This is what happens when more time is lost to doing work around the project instead of moving the project forward. For example, employees tracking down compliance forms, manually keying in field data, combing through spreadsheets, PDFs, project management tools, and other tech solutions just to find the information they need to do their job.

How pervasive? A recent Quickbase survey of 1,000 workers found that 67% were averaging 15 hours a week on gray

work. That is a sunk cost and is the result of the ubiquity of technology. On the one hand, the industry has been long overdue for digital transformation. Technology can help streamline processes, fill some labor gaps, and boost productivity. On the other hand, when all this technology is kept in silos, it is counter-productive and creates more gray work.

Gray work is about to increase due to the growth in construction technology. According to McKinsey, the architecture, engineering, and construction (AEC) tech ecosystem is growing as an estimated \$50 billion was invested in AEC tech between 2020-2022, an 85% increase over the previous three years.

The real value for a construction company investing in technology, and especially AI, is to make everybody's job easier by using a dynamic work management platform. 



About the Author

Peter Rifken is a Fellow Solutions Consultant at Quickbase. In this role, he bridges the gap between technology and business by providing valuable insights and driving action through people, processes, and data.

About the Article

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