

3 Ways Contractors Can Survive In A Time Of "Peak Disruption"



Not too long ago, construction professionals talked about disruption as an impending wave on the periphery of the industry. But technologies like artificial intelligence, virtual reality and robotics are making their way into the market faster than construction companies can keep up, according to Stacy Scopano, vice president of innovation at Skanska USA. Already, "We're at peak disruption."

In the first half of this year alone, \$1 billion of venture capital streamed into the construction technology space. In a kickoff keynote address to attendees of the 10th annual Associated General Contractors IT Forum in Chicago yesterday, Scopano identified 2,156 startups in this category — an astounding boom for an industry that had only one or two apps on the market in 2011.

It's impossible for the people responsible for buying construction technology to keep their finger on the pulse, he said, especially because 1,678 of these startups, by Scopano's estimates, have no money but attempt to sell their product anyway.

So how do contractors and their technology leaders cut through the chaos and uncertainty of full-blown industry disruption? *Here are three approaches that came to light in discussions throughout the first day of the AGC IT Forum.*

1. Engage the tech 'rock stars'

The traditional IT governance framework of designated specialists could actually be hampering innovation, by limiting the opportunities for talent — particularly, young talent — to put their tech skills to use.

Millennials and Generation Zers have a default level of comfort with technology to begin with, and many who enter the construction and architecture industries have studied and practiced with cutting-edge technologies like Virtual Reality. Contractors, meanwhile, are slow to deploy such technology because they often try to first set up a business structure around it. By taking a step back, however, they can empower tech aficionados on the team to take more initiative on the job.

If you now just take your old view of governance and look at empowering crowds and communities and engaging those rock stars, people opt in. You're getting bonus horsepower because you didn't name them; they just tell you 'I've got ideas on that very topic and I know where to go.' ... That's a total inversion of command and control of the technology to letting go but structuring the community around it. Some leadership may shy away from or reject new technology initiatives altogether. According to Jake Pepper, vice president of Pepper Construction Group, construction company employees tend to fall into

two camps: Those who are ready for change and those who are not. In this environment, technology advocates should find a "starting lineup" to implement a technology with, Pepper said in an IT strategy panel. "They can champion it, be an early adopter and tout the benefits of that to the rest of the organization," he said.

2. Align tech investment with business needs

But tech investments are all for naught if they don't address a fundamental business need. Dave Burns, director of innovation and field applications at McCarthy Building Companies, suggested "engaging a very broad, cross-functional group" in order to get an unbiased sense of where investment priorities should lie. This group should include design, preconstruction, operations, business development, executive leadership, IT and other business branches, he said.

Executives play an especially important role in this conversation because, in addition to providing the buy-in to move forward with a new technology, they can help develop a more comprehensive technology roadmap. "I think if you want technology to truly have an impact, you have to develop a strategy organically and together with senior management."

But, "you can't be the best in tech in all areas of the business," he added, so contractors should start with the tools that are specifically targeted to them. For example, an equipment company should first explore solutions in areas like GPS fleet management and telematics. Companies should also identify strategic objectives based on the type of work they do, Burger said. For example, a heavy labor contractor might center its investment around labor productivity systems and safety or training tools, he suggested.

3. Promote a culture of innovation

Construction tech leaders don't always have to look to outside providers to find innovation, according to panelists of an innovation-themed session. Some of the best ideas come from workers within the organization who come face-to-face with challenges in the field.

On this premise, M.A. Mortenson Co. recently launched the Mortenson Innovators Program as a way for team members to expand on their ideas for solving jobsite challenges and to incentivize similar problem-solving within the company. Richard Khan, senior director of innovation at Mortenson, said the company is investing in five of the 10 teams that presented innovations last year, which included new concrete installation methods for sloped foundations and reinvented foundation systems.

Similarly, Autodesk provides resources for construction companies, students and startups to get their ideas off the ground at its Boston-based BUILD Space, which stands for Building, Innovation, Learning and Design. Tenants have access to Autodesk's software, hardware and robotics at the research and development center.

"There's no lack of technology" at present, said Sarah Hodges, director of Autodesk's construction business line, "so my hope is that we together become the change agents for embracing tech and actually implementing it."

