

# The construction site: Tech's last challenge

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One might assume that digital disruption has infiltrated all the industries today. But it turns out that construction has some serious catching up to do.



There is no shortage of business to be had. The construction industry, in fact, ranks as one of the fastest growing sectors globally. Statistics Canada reports investment in non-residential building construction totalled \$14.1 billion the first quarter of 2018, up 3.1 per cent from the previous quarter. This was the fourth consecutive quarterly rise, leading to a 9.0 per cent year-over-year increase in construction investment. U.S. data shows similar growth rates. But there is a glaring shortage of tech innovation, says Samuel Godbout, vice-president of operations for Pharonyx at the Centech accelerator in Montreal, developers of a cloud-based and mobile tool for tracking and managing the progress of construction projects. “In 20 years, the construction industry has only gained one per cent in productivity, and is one of the last industries to adopt productivity technology. Most of what they do is still on paper or Excel sheets.”

Construction is one of the last major industries to be cracked with technology, confirms Lee Evans, CEO and co-founder of myComply in Saskatoon.

Founded in 2015, myComply is a web-based safety and compliance service that allows contractors to verify and manage certifications of all workers on a job site through a mobile device.

The challenge for the industry to date has been the lack of infrastructure to support digital communications, Evans explains.

“Construction sites are not like a traditional office space with good cellular connectivity and network cables coming into every office. Cloud and mobile access has improved so dramatically, they can now connect from remote areas.”

On the hardware side, the emergence of drones, augmented and virtual reality and IoT devices are providing many opportunities for forward thinking startups to get a foothold.

Single-purpose solutions that are cropping up cover a wide gamut under the project management umbrella, such as pre-construction, contract management, financial, documentation,

safety and compliance, timekeeping, payroll and scheduling.

“Technology is getting more and more mature as more businesses are finding a good use for applications,” Evans says.

There are solutions popping up every week in all aspects of business, he adds.

“If you can create a faster, more cost-effective and more efficient solution for existing manual processes, you will have business.”

The time for construction tech has definitely arrived, says Andrew Ackerman, managing director, UrbanTech at Dreamit Ventures, a New York funder and accelerator. He says he has seen a similar dynamic play out in other industries, such as education and health care.

“There is a long period of resistance, but at some point things massively start to change.”

The complexity of the industry has also been a factor in slowing adoption, he adds.

“A 10-storey building will take 18 months to build and involves a cast of hundreds or thousands. If something goes wrong, hundreds could die. It's a complicated industry to be in and requires deep industry expertise.”

While there is no single event that can trigger adoption, it's a matter of accumulated pressure, an untenable status quo, and the increasing availability of data to work with, he adds.

“Other industries were lower hanging fruit. It's natural for businesses to go after those that are the easiest to change and the most willing to experiment. Now there are very few multi-trillion-dollar sectors out there as lagging in tech adoption as construction. It has become a big juicy target offering so many opportunities. And with the lower cost of technology, innovation isn't as difficult as it used to be.”

Dave Kim, co-founder and CEO of Harbr Inc., operating out of Halifax's Volta Labs, is taking an AI approach to improving productivity and efficiency for property and real estate developers working on multiple projects. The idea is to use live field data to automate processes within the project management feedback loop and remove bottlenecks in real time.

With so many options, Kim felt it was necessary to focus on just one piece of the puzzle. In their case, retail construction. “It's very quick and requires many decisions around time-sensitive projects.”

This is only the beginning for the industry, he believes. Kim envisions a much broader scenario for those in construction tech beyond single-purpose solutions. Financial Post