

TALKING TECH TO TALENT



Young people should know construction sites have more touchscreens than shovels these days.

Using the right technology and hiring tech-savvy workers is essential for surviving in a competitive market.

By Kris Troppmann

Even in times of uncertainty, demands on the construction industry continue to grow. Since the COVID-19 pandemic began, most construction projects have been allowed to proceed on some level, while other industries have come to a halt. In order to survive in an already competitive market, it has forced many companies to catapult themselves into new, more efficient ways of working.

There is a lot of discussion around the future of construction and where the industry is headed, and the recent pandemic has only intensified this. In the short term a surplus of workers is anticipated, as some projects are deferred, but BuildForce Canada predicts that in the next decade, the industry will only be able to fill a portion of the positions needed, leaving over 80,000 unfilled jobs in the

sector. According to the Canadian Construction Association, Canada is also due to lose nearly a quarter-million construction workers in the next decade due to retirement.

So how do companies attract new workers and encourage Millennials to pursue careers in construction?

Skilled workforce

With so many workers set to leave the industry in the coming years, contractors face extreme pressure to ramp up hiring and attract a younger generation. Technology is providing an opportunity to fill that gap. Companies embracing this new way of doing business are seeing the benefits, not just by saving time and money but in growing a workforce of Millennials.

Because this generation has grown up with technology, it's a golden opportunity. They understand how technology works and its capacity to get the job done faster, eliminating time-consuming manual processes. Drones, machine control, automation, safety technology and AI – companies that are embracing these new technologies and committed to training

will be a much more attractive option to the next generation of workers that may be considering a career in the industry.

Our education system has in the past, typically promoted a university education over technical certifications and undervalued trade schools, on-the-job training and apprenticeship opportunities, resulting in a shortage of skilled labour. Companies need to shift their thinking and discover new ways to tap into the younger generation. This includes revising training, apprenticeship and recruitment strategies to align with new technologies and changes in the industry. Also turning to tools like social media and influencers to connect with Millennials and revising job postings to focus more on technology and the new skills required for careers in construction.

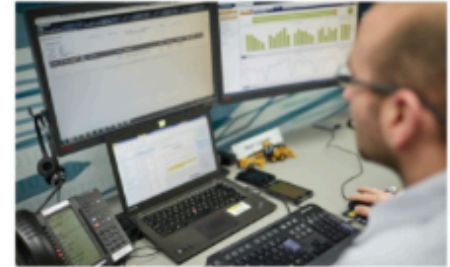
The future of construction is connectivity

Technology is fast becoming an indispensable part of each and every function in the construction industry and is now one of the key drivers of profitability. From keeping track of maintenance schedules, records, inventory and parts to site surveying and the maintenance and ongoing management of equipment, technology can successfully improve the efficiency, speed and accuracy of any construction operation. Earthworks, once done manually, can now be done semi-autonomously with extreme accuracy. With 3D GPS systems, the design is loaded into the machine so that with the push of a button the operator can see the terrain and know exactly where to grade, even on slopes and more complex job sites. Even site surveying, which once took days when done manually, can now be completed in hours or just minutes using drones to fly over the site.

There is a growing awareness that these same technology tools that are helping companies keep costs down, operate more effectively and gain an advantage over the competition, can also help make the industry more attractive to the younger generation. For example, telematics and remote monitoring technologies that appeal to Millennials can also help prohibit bad habits like speeding, excessive idling and overloading, which leads to increased safety on the jobsite, reduced wear-and-tear on the machine and increased efficiencies. Global Navigation Satellite System and machine control allows inexperienced operators to effectively operate equipment with a minimum level of instruction. It can also facilitate two-way teaching. Less experienced operators can teach more experienced operators how to use the technology to be more efficient, allowing the more experienced operators time to train new operators on the nuances of general machine operation.

Safer job sites

New developments in safety and fatigue technologies are playing a role in increased jobsite safety. Smart cameras are now mounted on equipment to detect dangerous hazards and improve visibility, increasing awareness and safety on site. Mounted inside the cab, they work by monitoring eye-closure duration and head poses, sending immediate alarms to operators and site-managers. There are also wearables which work by alerting operators and workers of proximity to potential dangers. All contribute to improved safety in



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the industry and provide assurance that the companies are invested in their employees' well-being.

As a result of technological advancements, construction is much less of a physically demanding job than it has been in the past. Advancements in machine control and increased use of semi-autonomous machines on construction sites are allowing for operators of all abilities, experience and skills to quickly learn to operate equipment safely and efficiently and be more productive. These machines also feature options like touchscreens in spacious, comfortable, climate-controlled, quiet cabs with large windows to enhance visibility, outfitted with Bluetooth and the latest technology. This is proof that both the trade and the equipment have evolved with advancements in the industry.

Gaining diverse talent

Apart from making the industry a more attractive proposition, investing in technology can also improve the efficiency, speed and accuracy of construction operations. Increasingly, government tenders, large contractors and large projects are demanding the use of certain technologies as a requirement to win jobs. Which means contractors not using the technology are no longer able to compete. All these advancements have resulted in projects being built faster and with fewer risks involved, but with a large portion of the workforce set to retire in the upcoming years, more needs to be done to stem the labour shortage. Strides have been made in terms of promoting gender diversity and recruiting women to construction but they are still dramatically under-represented. Rethinking recruitment strategies and efforts could help attract not only a younger generation but also a more diverse workforce.

The industry is changing and technology has helped to level the playing field. The time has come for companies to invest in new ways to attract the next generation of workers to construction. Offering challenging and fulfilling jobs will create opportunities for this generation to experience long-term, well-paid and rewarding careers in the industry which could eventually bridge the labour gap. cc

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