

Work Shift – Episode 13 Transcript

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CHILD 1: When I grow up, I want to be a contractor because I like building stuff.

CHILD 2: When I grow up, I want to be a stunt double.

CHILD 3: I want to be a Youtuber.

[music]

SHAWNE McKEOWN: COVID-19 has us all thinking more about the buildings we live, work, and play in every day. Issues that a once-in-a-century public health crisis brought to our collective attention. Did you have concerns about HVAC and indoor air quality before your kids went back to school? Live in a high-rise building and finding physical distancing a challenge on the elevator?

RAY HARRIPAUL: Lockdown got you yearning for green spaces and exercise? Some of you may be feeling antsy working from home in a small apartment with your family, and lots of us are wondering what's in store for practically empty office towers.

SHAWNE McKEOWN: This episode is all about construction versus COVID. We're talking about how the pandemic is accelerating innovation and opportunities in the sector when it comes to building new spaces and retrofitting existing ones.

RAY HARRIPAUL: With a shortage of skilled professionals in virtually every facet of the sector, our guests lay out the reasons why now is a great time to consider a career in the construction industry.

SHAWNE McKEOWN: And they tell us why these careers are about more than punching the clock and why you can expect meaningful and fulfilling work in this industry.

RAY HARRIPAUL: Welcome to Work Shift.

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CHRIS WILLIS: We are going to spend a lot of time now repurposing buildings instead of demolishing them and putting the waste in the natural environment and polluting it. When we design new buildings, we are going to design them with the expectation that they're going to serve many different purposes over their lifetimes and meet the needs of the people in a sustainable manner.

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RAY HARRIPAUL: Digital disruption.

SHAWNE McKEOWN: The gig economy.

RAY HARRIPAUL: Artificial intelligence.

(synthesized voice) Robots.

RAY HARRIPAUL: And now, COVID-19. What does it all mean for you?

SHAWNE McKEOWN: I'm Shawne McKeown.

RAY HARRIPAUL: I'm Ray Harripaul.

SHAWNE McKEOWN: We're exploring the future of work and changes you can expect to see at your job.

RAY HARRIPAUL: We'll tell you how this massive digital shift could change your career and what you can do to adapt, evolve, and thrive.

SHAWNE McKEOWN: In this episode, we're exploring how COVID-19 is accelerating and intensifying innovation and construction and why the sector is attracting a new kind of job seeker.

RAY HARRIPAUL: We are talking to Dr. Chris Willis, a professor and program coordinator at George Brown College's Angelo DelZotto School of Construction Management. And Andrew Gordon, principal of Gordon and Gordon Group, Inc., a construction project management firm serving the industrial, commercial, and institutional sector.

SHAWNE McKEOWN: We're all doing things differently since the Coronavirus came into the picture. We kicked off our conversation with Chris and Andrew by asking how things have changed in the construction sector and why this bodes well for the future. Here's Chris Willis.

CHRIS WILLIS: So, with COVID-19 with this pandemic, what I have observed happening is two general things. There has been an acceleration with respect to change and there has been an intensification with respect to the way certain things are changing. So, with the pandemic, it's accelerated certain changes in the construction industry that have in the past couple of years been very slow to happen. Those things just happened overnight now with the pandemic. It was either you adapt and survive or you lose it. And then there is an intensification of certain things. There is going to be an intensification of automation in construction. There is going to be an intensification of wearing, you know, augmented reality devices.

RAY HARRIPAUL: And here is Andrew Gordon.

ANDREW GORDON: So, when you asked me how the pandemic impacted the construction industry, as it relates to what I do, I'll tell you right now that I think we've become far more productive, and we are becoming, we're trying, we're changing a lot of bad habits. I'll give you an example. I used to be on a board of directors in London, England, and I had to fly out four times a year for a four-hour meeting. And I always asked the question, why couldn't we just meet virtually online back then. It was not even thought of as an option. Today, it's now the number one option. And it's making me far more productive. That's just on one scale. The other interesting thing is I was speaking to one of my colleagues who represents and trains members of a construction trade union, and I was speaking to him earlier this morning. I said, how's your enrollment. He said, quite frankly, our enrollment is up. The quality of people that we are

attracting is up. Because of COVID, there's been an increased emphasis on the infrastructure, which our society and our government hasn't really addressed for many years. We're attracting a far higher calibre of people into the industry. So, that's what-- these are two very simple impacts of how COVID is making an impact on how we do our day-to-day work, and it bodes well for the future.

RAY HARRIPAUL: Builders are going to have to do things differently thanks to COVID. Andrew explains how a recent trip to his doctor's office highlighted this.

ANDREW GORDON: And I said to the doctor-- I looked up, I said, you know this air conditioning is not infection-grade standard. So, that means any return air will go into the air plenum in the ceiling and circulate to other areas in this building, which means if I've got COVID, I'm going to be spreading it to other rooms. He said, you're probably right. So, doesn't it make a mockery of the standard of me sitting outside, having to go into a room, and therefore I'm just going to spread the virus, which we're told may or may not be airborne? Now, I'll give you where I'm going with this. Now, about two or three years ago GGGI represented the owner of a municipality in Ontario where we built a health centre, and that health centre had to the facility to house an outpatient for a large hospital, three surgeries for doctors, an x-ray facility, renal services, dental services, chemists, it goes on. You've quite a large building of 45,000 square feet. All the air conditioning in that building was infection-grade standard, of what you would expect in a hospital. Now when we were building that and designing it, the cost to build it to that standard was significantly higher than my doctor's surgery was built about 40 years ago. Failure is an orphan, but success has many parents. So, this year, COVID came along. The health centre had been open six months. The centre was fully operational. It didn't miss a beat. And what's more, we could treat the, the town could treat patients in that facility with the knowledge that it had been designed to meet infection control standards, including COVID. Now, that is something that we're going to have to reevaluate, because if we are going to have more of these type of viruses spread in our society, and it's probably likely that it will, but we have to be aware that when we plan to design infrastructure, we need to have a greater emphasis upon the health impact of the built environment, which I'm afraid we don't do. We are totally driven by capital cost as opposed to health impact assessments and lifecycle costing of our built environment. And that is a very tangible example. I'll add to it one other item. I'm involved in a facility, which will, basically it's a rural setting. It has the potential to house 80,000 people in Ontario, probably one of the most ambitious projects this province has done for a significant period of time and we're talking with the provincial government and developers to attain this. And one of the criteria that we've decided to pursue in developing this community is it has to be a sustainable community, but part of sustainability has to be the health impact of the people who live there. It has to have a sustainable environment so people can flourish. It has to have green spaces. It has to have the ability to give people an interest.

SHAWNE McKEOWN: The project Andrew was talking about is a development proposal for the City of Innisfil called The Orbit. The city describes this proposed community as a place where small town and rural lifestyles are enhanced by the benefits of urban living. It's a community with a new GO station at its centre. You can learn more about it in our show notes. Visit GeorgeBrown.ca/about/work-shift-podcast.

ANDREW GORDON: You know, COVID is saying, you know what, you're likely to work from home. How could anyone live in a condominium which is 500 square feet with insufficient space to store food, or you get into an elevator that's grossly overcrowded full of other people. How does that fit into social distancing? This is what COVID is doing, and this is what the construction industry and the developers and the owners have to face up. And that's why we've defined on this particular project, which had been well broadcasted in the media. You have to take account of the health impact that you're developing the built environment to.

CHRIS WILLIS: I just wanted to add to that, because, you know, and again, it goes back to the two, to the two themes that I started off with about acceleration and intensification of changes. So, even before COVID at a very high level, the thinking was we were going to enter, the world was going to enter the circular economy, and the construction industry had to evolve into the circular construction industry. Now, I think with COVID that has been accelerated, and by circular, we are going to spend a lot of time now repurposing buildings instead of demolishing them and putting the waste in the natural environment and polluting it. When we design new buildings, we are going to design them with the expectation that they're going to serve many different purposes over their lifetimes and meet the needs of the people in a sustainable manner.

SHAWNE McKEOWN: The pandemic has highlighted serious problems when it comes to systemic inequity and lack of affordable housing. City of Toronto data shows neighbourhoods with the highest density and lowest incomes have been hardest hit by COVID-19.

ANDREW GORDON: Affordable housing is an issue. Developers have to be encouraged whether it through legislation, whether it through economic incentives to create affordable housing. And it has to be integrated into the society. Nobody wants to be ostracized to say, oh, if you live in this neighbourhood it's because you don't have enough money to buy a house. You should have it integrated in. You have to address the huge imbalance between the haves and the have-nots.

CHRIS WILLIS: You know, just to add to that, and it goes back to the affordable housing dilemma, you know. Last night, I looked at an interview, there was a professor from the Wharton School of Business, and he summed it up very nicely. Basically, with a second wave, what he is saying is the mortgage deferrals have come to an end. The rent freezes or deferrals have come to an end. People are going to have to start paying, and you know, a large number of people, given the debt that they were in before the pandemic hit, may end up being homeless. So, the situation you're going to have is you're going to have homeless people, and then they're going to see an empty building and say, well, wait a minute. We are all homeless, but there are building in Toronto that half the building is empty. There is what used to be a mall that's empty. Why can't we go live in there? So, then, you know, that would really press the politicians now to rethink now and to invest in affordable housing because it's not a matter of we don't have the land for it now. It's we have a building, we just need to repurpose it to meet this pressing need. So, affordable housing may get accelerated as well.

RAY HARRIPAUL: So, what kind of technology will help us figure this out, how to design and build in a better way. Here's Chris.

CHRIS WILLIS: The fact that we are virtual right now and we're not really doing a lot of face-to-face in-person meetings, there is, that alone is impetus or will accelerate the use of or the move to digitization of the construction information. You know, to achieve some of the requirements of a circular construction industry, to achieve some of the requirements of building or repurposing a building to meet certain infection control measures, in order to do those things, you will figure out that it's easier to do it using a digital model and doing simulations on that digital model. That alone is good argument or a good foundation for the increased use of building information modelling throughout the industry. The fact that we're meeting virtually and exchanging information virtually as well, I think, the benefits we're getting with this will continue and people will probably stick to it. As a last resort, we'll do in-person team meetings, we'll do it virtually. The other direction it's going to head in or be accelerated towards is modular construction, which had been on the horizon for a while. This will tend to accelerate that. We're even seeing some clients, you know, like certain municipalities or counties rethinking the way they do affordable housing and long-term care facilities. You know, gone are the days maybe when you can flip a hotel into a long-term care facility. Now, the thinking is for infection control you may need something like a university-type campus with different buildings, and you know, so that way you can isolate various, you know, members or sections of the population in your long-term care facility. So, we're getting that kind of thinking happening now from the clients and the owners, and you know, given how things are playing out, I think it'll happen very quickly, the change, and you know, the challenge now is for the education institutions to really pick up the slack and to really impart those skills and competencies.

SHAWNE McKEOWN: How can builders adapt to increased public health measures, especially in high-density areas where lots of people converge, well, used to converge, and rely on elevators, escalators, and other common areas?

CHRIS WILLIS: What it really comes down to is getting the data, harnessing it, and manipulating it, and analysing it. We're at a point where we're going to have access to lots of data. We're going to have access to data as it relates to people's preferences, people's behaviour on the weekends, people's behaviour on Mondays, how they tend to walk through a building, their times of entering and exiting. With that data, you can then make a very sensible design decision as to how many elevators you're going to use, what type of lighting you'll put in the elevator, the speeds at which the elevators will run during the day, will you adjust it, what will be a peak time, how many entrances. And even now, you could take it a step further with the data on how the users will actually use the building. You could then develop a very effective facilities management plan. But, again, it's all based on getting this accurate data and using the right types of artificial intelligence to extract the useful information and use it in your design decisions. So, you know, the next step is that. It's already kind of being done in some research projects at universities. So, you know, we see that continuing. That may be accelerated as well. Because the expectations now is, you know, the clients are going to demand less waste and less risk as well, risk being in terms of building the thing and using the facility as well. So, that's definitely going to happen.

SHAWNE McKEOWN: Lots of exciting changes are underway in the construction industry, and there are a lot of changes in the types of people looking for training in jobs. Here's Chris.

CHRIS WILLIS: You know, as the program coordinator of our degree program at the college, I can tell you that the information that was shared with me, our enrollment number in the first year of the degree is actually up, and the types of candidates or prospective students that we're attracting is up as well. For instance, I, you know, had a conversation with a prospective student who has been a restaurant manager for the past five years, and prior to that, she attained a bachelor's degree in geography, I think, from the University of Toronto. Now, that student, that prospective student, is looking at having a degree in construction management as a final long-term type career. We've seen, you know, older prospective students in their late 50s trying to make that decision to come back to earn a degree, and we've seen students who dropped out and worked now deciding, you know, let's go back because I need to reskill and make sure I have that skillset that's going to be in demand. So, definitely, the numbers are up, and the quality of the candidates are improving because we're attracting more from the nontraditional areas. Yep.

ANDREW GORDON: When I spoke to this gentleman, who was a training officer for this union in Toronto, he said, we're attracting a far higher calibre of individual because construction has suddenly come to the fore. No longer is construction the, oh, if I can't do this, I'll go into construction. As to skills, there is an acute shortage of skilled people in the construction industry, prior to COVID. Canada has traditionally relied upon immigrants to fulfill its skills gap, and because of COVID and the inability of people to travel as freely as they once were and because of the changing demographics in our society, Canada is now starting to face up to the fact that it has to start training its own. So, this COVID has accelerated what was already happening.

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SHAWNE McKEOWN: It's time to take a look at the future want ads.

[children cheering]

RAY HARRIPAUL: Yes, kids. Listen up, because these could be jobs you'll be applying for when you grow up.

SHAWNE McKEOWN: In this segment, we ask our guests to outline a job they think should exist in the future. Okay, Chris, what have you got for us?

CHRIS WILLIS: I really don't see a new job or a new job title as appearing. What I see happening is our current roles or our current jobs and their roles, those will evolve. They will evolve in the way they're done and in terms of their responsibilities.

RAY HARRIPAUL: What kind of education or experience will be required?

CHRIS WILLIS: What does that mean for education? What does it mean for society now? It means you are going to get some professionals or a large number of professionals who are already working. They're going to have to upscale. They're going to have to learn something new, and they're going to have to learn it quick. And in order to meet the needs of that

evolution, you're going to need micro certifications so that everyone gets that needed skillset and gets it very quickly.

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SHAWNE McKEOWN: That's a wrap on this episode of Work Shift. What did you think?

RAY HARRIPAUL: Want to share your thoughts on this episode?

SHAWNE McKEOWN: Email us at workshift@georgebrown.ca.

RAY HARRIPAUL: Get in touch, and we might share your thoughts during our next episode.

SHAWNE McKEOWN: This podcast is brought to you by the fine folks at George Brown College. We want to thank Dr. Chris Willis and Andrew Gordon for sharing their thoughts with us.

RAY HARRIPAUL: It's the end of your Work Shift. Thanks for listening.

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