

Announcer ([00:02](#)):

You're listening to the Safety Moment Podcast by Utility Safety Partners.

([00:07](#)):

Safety is always a good conversation and it's a click away. Here's your host, Mike Sullivan.

Mike Sullivan ([00:15](#)):

Welcome to the Safety Moment Podcast. Nice to have you back. My guest today is Dr. Estacio Pereira, who insists I call him Estasio, so I'm doing that. Today we're talking about a module, training module, which is a fact, actually more like a game. And I met him a couple of months ago and what he's developing has just intrigued me. So without further delay, let's get right into it right now. Dr. Pereira, thank you so much for joining me on the Safety Moment Podcast. And we're doing this, we've never met before. I'm only kidding. I'm just trying to remember when it was the first time we did meet. I think it was one of my board members reached out to me from Fortis, Alberta and asked me to get in touch with you.

Estacio Pereira ([01:04](#)):

Yes. Yes, I think it was around February or March.

Mike Sullivan ([01:09](#)):

Yeah, that makes sense around there. And we're going to be talking about what you're working on, but before we do any of that, if I could ask you to introduce yourself and tell me a little bit about your background.

Estacio Pereira ([01:24](#)):

Sure. First of all, you don't need to call me Dr. Pereira. You can call me Estachio. Istacio, Estachio. That's fine. Okay. So I'm from Brazil. I graduated in civil engineering, Brazil, 2005. And then since I was in the undergrad, I worked in construction projects, high rise buildings. And I was lucky to work in small companies, I would say, because when you work in large companies, sometimes you can only see a part of the project. When you're working in small companies, you get to see everything. I was the safety manager, the project scheduler, the project cost estimate. I had to train my workers. And I think this. So as I was the only manager in this project, I had to train my workers. And it was really interesting. Every Friday or every other Friday, I would have this safety induction with new workers. It would take around one hour and a half, two hours, and I would explain them safety on the construction site.

([02:35](#)):

And then things would happen. And I would ask myself, how come I just told them this? And I'll be honest, the first word that would come to my mind was negligence. They are being negligent. They are not paying attention. They are taking shortcuts, whatever.

([02:54](#)):

And that stayed with me. Well, they are not doing enough. Then in 2012, I got the opportunity to move to Edmonton to pursue my PhD. And I should say that when I Google Edmonton, my first question was, well, is there life?

Mike Sullivan ([03:15](#)):

It's not Brazil.

Estacio Pereira ([03:16](#)):

It's not Brazil, right? Bagnos 40. Holy. Yeah, it's like

Mike Sullivan ([03:21](#)):

Anti-Brazil.

Estacio Pereira ([03:22](#)):

Oh yeah. It's the opposite, right? Brazil's plus 40 here is minus 40. But then I move it here and I was always passionate about safety. And I said to my supervisor at UFA, said, "Well, I want to research on safety." And he supported me and he said, "Well, but for you to research on safety, you need to visit sites." And then I start to visit site facilities, wards. And every time we would have the safety orientation, I would be there. And a few times they were explaining about parts of a crane and what was the risk? And I could not understand anything because, well, I can guarantee you that in any English training in Brazil, there is no such a thing as someone explaining you the parts of a crane. And that was the most difficult part. When I move it here, I realized that, well, sometimes the worker may not be understanding because they are negligent.

([04:31](#)):

They are not following, but because they are not understanding. And during my PhD, well, I tried to research on safety leading indicators, trying to find ways that this could be used to proactive measure safety. But what I realized it is that when you start on a project, if English is your second language or if you are not aware of the technical terms of a project, it's really hard to make things safe. So with that, I completed my PhD with this idea of safety issues in the training. Then I moved to the UK. And in the UK, I was a professor there. I would visit construction sites and the same thing would happen. So I came back to Canada, I said, "Well, it's time to do something to solve this issue." So that's my small journey.

Mike Sullivan ([05:24](#)):

Well, an interesting journey too. And you're absolutely right. Safety, I'm using air quotes here, the safety industry, if you want to call it that. The vernacular that is associated with certain parts of the industry, whether it's pipeline or cranes, as you mentioned. If a person is working in that industry, let's say the pipeline construction industry, and they're fairly new to it, they won't understand, they won't know the vernacular associated with it, whether it's trenching or joining or bending or whatever it might be that they're doing. And so that's what intrigues me about what you're creating. And I'm going to refer to it as the game. And when we connected, as I mentioned earlier, it was one of my board members from Fortis, Alberta who reached out to me and said, "Mike, Estacio has reached out to me to help with this product he's working on, but I think it would be better if it came from utility safety partners rather than just from Fortis." And so I was intrigued with that.

([06:41](#)):

And then we connected and you told me about, and I'm going to call it the game again, but I'm going to ask you now to explain the game because when I first was given an opportunity to see it, it reminded me, and I've never been a gamer, but my kids, they have been and they are. And I've seen the gaming systems and

([07:06](#)):

You see videos of them. And the first thing, this is awful, but the first thing I thought of was, gee, it looks like a first person shooter kind of game. That perspective. But I mean, that's the only thing that I would

make that equivalent to because it's not, but it has that first person perspective. So walk me through that a little bit, the game and how you're approaching that challenge that you recognize while doing your PhD.

Estacio Pereira ([07:34](#)):

Well, so coming back, so what I noticed when I moved to Canada was that workers, they don't understand. They have difficulties. And even for engineers, you are trained to talk with engineers. Let's say engineers are trained to talk with engineers. Yes.

Mike Sullivan ([07:56](#)):

Yeah.

Estacio Pereira ([07:56](#)):

We are not trained to talk with workers.

([07:59](#)):

When they assess our communication skills, they assess us on a way that we are talking with engineers. I never had the construction workers come into my presentation and say, "Well, I cannot understand you." It's always engineers. Engineers are assessing me. The way you communicate with engineers and workers, they are different. And then this communication may lead you to assume that the workers understand the hazards. So the problem that I had was that, well, I was presenting my lecture. Well, I was presenting the safety training to my workers. And at the end of the safety training, I would ask them, "Well, do you have any questions?" No one would raise their hands. And I would assume, "Well, they know everything."

Mike Sullivan ([08:47](#)):

And you

Estacio Pereira ([08:47](#)):

Were

Mike Sullivan ([08:48](#)):

Really good at your delivery, right?

Estacio Pereira ([08:49](#)):

Yeah. And I said, "Well, that's great. I'm so good." And then the things would happen. Actually, they gave me it's a fancy word to say, "I'm assessing. I want to assess what you know." So how the game work or this assessment tool, right? The assessment tool is that, well, we go to your project or you can send us picture of your site and we gamify it. The game, to some extent, it follows a hazard assessment, risk assessment structure. So we utilize the energy. We win the game where workers first identify the energy sources in this scenario that it's your site. And then once they identify the scenarios, they receive a feedback and the amount of points they are making for selecting the right ones, the wrong ones, and so on. And then they go to a second question and say, "Well, of these energy sources of these hazards, which one have a high impact on you that can kill you or cause a serious injury?" And then again, they select these ones and they submit it and they receive the points.

(10:00):

The last question is about, well, now that you identify these hazards, now that you know the hazards, you know that they can kill you, which one of them have mitigation strategies in place to protect you if you make a mistake? That will be somewhat the direct control that Halwell from CSRA discuss about. And the workers, again, they select it. And then at the end, in every phase, the trainer receive this information and then can discuss with them. Well, I can see that most of my class today cannot understand well this concept, this energy source, these hazards. So what is the problem? So this provide the feedback to the trainer of how their crew is performing. And you have the gamification behind it in a way to engage the workers to play. So at the end, you have a ranking of the workers. Which one is the best one?

(10:57):

Which one is the worst one? Of course, all with random names. So you cannot identify. But the idea is that well, for the best one, you can reward them.

(11:09):

With my students, I give them a chocolate, a candy or something. In your site, you can do something else. You can provide some different awards for the best ones. So that's the idea. And for the companies, it's not just about the trainer. If you aggregate the data, if lots of your workers are playing the game, we then can see the trend of your project. Where are workers at? How many of the workers are understanding the hazards? How many of them are understanding the mitigation strategies? I have a hypothesis that most of the workers, they do not understand direct control. They sometimes think that administrative controls protect them regardless if they make a mistake or not, because at the end of the day, no one wants to get hurt.

Mike Sullivan (12:00):

That's

Estacio Pereira (12:01):

Right. No one wants to get hurt on a project. If things happen, it's because, well, they're getting. In my view is that the workers are not understanding what happened or they are not able to identify the hazard for different reasons. Maybe a fatigue or something else. And I think it's important to assess what they know, not just assume, not just about compliance, but assess what the workers know.

Mike Sullivan (12:27):

Well, and there's so much information that comes at a person, whether it's a worker or an engineer or a manager of any kind that's working on site, a foreman. There's so much information that they have to process, let alone, I mean, whether it's compliance with legislation, regulation, standards, best practice, the project site requirements, the requirements of the utility owner, whatever it might be. There is so much information that comes at them that I think it can be, I wouldn't say confusing, but there's a lot to process. And when your mind is in the midst of processing all this, even though you're on site, sometimes you don't see what's actually staring right back at you in front of you. And so this game, the ability to assess those who are going through it and identifying that the gap, what did they see? What did they not see?

(13:31):

Or what did they not recognize as a hazard? They may have seen it, but they didn't recognize it as a hazard.

(13:39):

That intrigues me because it allows a person, okay, you know what? 80% of people who went through this scenario, they missed this or they missed that. Did we not provide enough information on it? Did they not see it as a hazard because the consequences of that hazard weren't adequately communicated? Or they were communicated in such a way that it downplayed what the actual hazard might be. So I think it has, as you were mentioning earlier on, when you have an engineer speaking to an engineer, there's a certain level of dialect, if you will, which might be lost upon a worker. And that to me bridges this gap in communication.

Estacio Pereira (14:25):

Yeah. And I will tell my first person, when I moved to Canada, the same thing would happen. They would ask, "Well, do you have any questions?" And I wasn't an engineer there. And I felt that, well, if I raise my hand, it will show that I don't know anything. And you know that construction workers, they say, "Well, engineers, they don't know anything. They just don't have paper.

(14:51):

But they don't know how to execute this thing." And I was there in the middle of this crew in this toolbox meeting. And when they said, "Well, do you have any questions?" I would look to my side. No one would raise their hand. And I will not raise mine. And there was no way that I would raise my hand. But one day I was brave enough to ask the foreman this question, "How do you know that we are understanding what you are saying?" And then the foreman said, "I know that you understand. I know that they are understanding the hazards." So that's the thing. You assume that people understand. You assume workers understand. And the game can provide this venue for discussion, as you mentioned, to show what they are not understanding. And then you as a trainer say, "Well, this is not what we're cooking.

(15:46):

What can I do in my training to enhance this?" Yeah.

Mike Sullivan (15:51):

Well, and it's common in any kind of training scenario. Going right back to when we were kids in primary school. I can vividly recall being asked by the teacher in a class and I was very young, "Does anybody have any questions?" And I'm thinking, "I got a ton of them, but nobody else has their hand up. So I don't want to look like a fool here. And I'll go along with it. Maybe I'll figure it out later." And that's just not me. That's everybody. I mean, I think at some point in time, everybody has felt that way. And some people never lose that. They never get the confidence, "I'm going to ask this question." And then usually when they do, somebody says, "Am I ever glad you asked that because I didn't know either?"

Estacio Pereira (16:43):

And

Mike Sullivan (16:43):

So now you have this ability to, yes, you can still ask the question, but the game, as we keep referring to it and we got to get a better name for it here, which I'm sure you'll help me out with. But the game allows that lack of information or whatever it might be that's missing come out

Estacio Pereira ([17:06](#)):

And

Mike Sullivan ([17:07](#)):

You can act on it.

Estacio Pereira ([17:09](#)):

Yeah. And I just want to add that besides showing deficiencies, the deficiencies are pointed in your project. When you have a training, when you receive a safety certificate, all of this is important. But usually you are trained in a generic environment because well, you don't know what is the environment. So the trainers, they need to set up the most likely scenario. And then with that, they start to ask you questions about the scenario, what may happen and so on. However, the project itself, it changes every day. So how you make sure that the workers can understand the hazards in my project? How can I assess if they can? So this assessment two gamified version allows the workers to do that, allows the trainer, the companies to assess this. And I think it's a really important piece of information for the companies to understand where are their workers.

([18:14](#)):

And moving forward, we are developing other games as well. One of them is about communication. So what we are doing, we are having these scenarios and we have AI personas with grade four literacy in English. And then you start to talk with these personas. And at the end, the persona say, "Well, can I understand what you just said or not?" And provide your feedback, say, "Well, these people, they could not understand what you said." So imagine my daughter, she's grade four, she just moved to grade five. I'm always thinking that, well, when I'm talking with her, it's different from when I'm talking with my students that are engineers. It's completely different. The communication that I use it with her, the strategies I use it with her, it's completely different. However, when we assess communication skills, again, it's just the level that you are. And I think these tools that we are developing to assess competencies to a gamified environment are a way to companies to continue assessing their workforce.

Mike Sullivan ([19:24](#)):

And the population that's working today, the younger people, the younger than me, let's face it, this is how a lot of them have spent a lot of their time gaming. And it's familiar to them. They're comfortable with it. If they're put into a situation where this is one of the tools we're going to use to learn, they're probably excited about it because it's probably even comforting to a certain degree. And I think it's a great marriage actually. Now with the product and the other scenarios that you're working on today, but you're also, I'll call it an advisory board. You've established what I would call an advisory board, and I'm very much appreciative that I'm part of that. What is that advisory board? Or what's that group's responsibility in relation to what you're building?

Estacio Pereira ([20:21](#)):

Yeah. So at University of Calgary, we are developing or implementing an engineering safety program. And the idea is that, well, we need to train better at our students. And the problems that the students

face most likely is similar with what industry faces. These students from the University of Calgary, in a few years, they will be engineers. They will be the one doing design. So they need to understand, well, how can I mitigate hazards during the design phase? How can I define engineering controls? How can I substitute? Instead of relying in administrative control. So the idea of this board, this advisory board is having people from industry where they bring their problems. What are the problems you are facing? The tool was a nice way to get them involved in this board. So they can test the tool, they can provide feedback, they can test the workers.

(21:27):

But the main goal of this board is to bring their problems. And once they bring their problems, we give these problems to our students so they can think about it and they can think about solutions to these problems. So let's say, well, I'm having an issue with my workers. For instance, they are not understanding, so you can use a game, but how can we enhance this assessment to gamifier tool to be in a level that the workers can use? So what I think is that academia and industry, they should walk together.

(22:01):

So that's the goal of the safety program. The safety program, the anxious safety that we are calling, just have a purpose if we are walking hand in hand with the industry. And then the industry provide the problems and we try to solve the problems, not the other way around. We try to solve a problem, then we try to fit it with industry. We need to understand what is the problem with industry and as engineers try to solve it together. So that's the idea. And we are receiving a few positive feedback with this initiative, I should say.

Mike Sullivan (22:36):

Yeah. And as you know, Utility Safety Partners, we have a training standards committee that's part of underneath the umbrella of what I would call utility safety partners. They're fairly autonomous. I don't manage them and neither they manage utility safety partners, but we work cohesively. We work in parallel and collectively. And they are made up of training providers predominantly. That's what the committee is made up of. And they establish standards for ground disturbance or right now they're working on hydrovac training standards. And this is another opportunity though. I mean, what you're providing is another opportunity to incorporate and enhance and compliment actually those training standards. And I believe you're part of that committee now, and it may be somewhat premature that I asked you to consider joining that and being part of it. But I do see a path forward where training standards can incorporate this model, this tool for training.

(23:45):

I guess my question in relation to that though is what kind of a timeline is there? I mean, this is creating a tool like this is you don't do it overnight. And maybe artificial intelligence is starting to help that a little bit, the timeline, but what kind of a timeline are you looking at to produce something like this?

Estacio Pereira (24:05):

So we started more than a year ago with this idea of developing a game to assess competencies. So our first idea was to have a VR headset and develop some scenarios where you could walk around a project and assess the hazards. What we notice is that if we want to make it available for a large number of workers, VR headsets are not the most optimal solution. Because how you are going to take 10, 20 headsets to a construction site or to a utility site and then ask the workers, well, walk around to check. So it doesn't make sense. So that was our first try. And then after that we realized, well, we need to

have something to use on their phones. Workers should be able to use their phones. So I would say that today we started the prototyping. We have a few companies that are talking with us, allowing us to visit their sites.

(25:15):

And we are starting to take pictures and getting the feedback of the workers right now on the game functionality. Can you understand it? It's easy for you to understand. Because again, my experience using phone, it's different maybe from someone on a site. Yes. Maybe for new workers, it's easy to use their phones to play. Maybe for more experienced workers, it's not so easy. So this is the feedback, and that's something that the program allows me to do. Usually when you have a research project, you have a start date and a really clear end date. And then once you achieve this end date, that's it. The tool is there. Who wants to use it? Use it. There is no more updates and so on. Our idea is to develop this program so we can continue to improve. The tool itself should be a continuous effort to make sure that the workers feel that it's easy to play and it's easy to collect the data.

(26:25):

So I would say that it's more than a year that we are developing these testing with students and now we are prototyping with sites. And it's interesting because we are receiving interest from companies that are from construction side, but at the same time, warehouses.

Mike Sullivan (26:41):

Yeah, I could

Estacio Pereira (26:42):

See that. Yeah. So they can use it to train their workers. So actually the two can be used at any place where you have hazards, not just construction, oil and gas and so on, but at any place. So that's the assessment tool. The other one related to the workers, to the foreman trainer, the communication skills, they should be ready for prototype by the end of next month. So that will be what we have in mind. That's

Mike Sullivan (27:12):

Excellent. From my perspective, I'm going to be a little bit selfish here. From my perspective for the preventing damage to buried utilities or even overhead assets or avoiding contact with overhead assets, I see a tremendous opportunity. And not just, well, here's an excavation and there's one module for that. I see a series of modules. Right now, as you know, there's a heavy push for fiber build across the province of Alberta. And not just Alberta, but North America wide. And not just here, but in the US as well. And the method of installing fiber is through a drill push and they have to locate and pothole at the point of crossing. And I know that that doesn't always happen. It's supposed to, but it doesn't always happen. I see a tremendous opportunity for a module to be developed for that. And it doesn't have to be a long, voluminous type thing.

(28:19):

It could be a 90 second just to show here's how we're installing fiber. Here are the hazards. Here's how to do the work properly. Can you identify the hazards, for example? So when I come at this and I've been brought into the board on this that you brought me into, and I'm very thankful, that's where I'm coming from is that. And then we talked about at Utility Safety Partners annual general meeting back in April, and you were there and I was really glad to see you there. We talked about the look up and live application or we call it a map location. And we were just starting to roll it out at the time and it's

getting more and more traction. But I also see potential for developing a module for that too. And I was really thankful and somewhat dismayed, I guess, at the same time when you showed me the photographs of the scaffolding for a condo construction that you saw yourself and they came into contact with the overhead power line.

(29:36):

Thankfully nobody was injured, but there was conductivity. It was

Estacio Pereira (29:39):

Luck. It was pure luck.

Mike Sullivan (29:42):

Yeah, pure luck. Exactly. So there's so many implications and you talked about warehouses and other work environments, job sites, but for the protection of buried utilities and overhead assets, just to create that additional level of awareness and Train people how to do it right. I see a tremendous opportunity there and that's where I'm coming from.

Estacio Pereira (30:08):

Yeah. If I could add something. Again, this is not replacing any training, any training delivered in Alberta.

Mike Sullivan (30:19):

That's right.

Estacio Pereira (30:20):

It's really important to have your ticket. It's like an engineer. The degree is important. It's important for you to come to the university to study, but finishing the degree, it doesn't mean that you are a professional engineer. You still need someone to check your work. On a side, sometimes it's not that easy for you to stay 24 hours on the side of your workers because well, you have several other things that are happening at the same time on your side. So it's important for you to have some ways to assess the workers, what they know. And it's critical to understand what they know in your project, not something that it's generic. So this tool is a compliment to these trainings where the supervisor. And really, it doesn't take 10 minutes to create a scenario. You take the pictures, you import it, and you identify the hazards, and you play with your workers, and then it gives you a clear picture of where they are.

(31:33):

They may have the theoretical knowledge, but you need to make sure that they have the knowledge within your project. And that's what the tool is about. It's giving the company the data, the information that they need to make sure that their workers are understanding the environment that they are.

Mike Sullivan (31:53):

Yep. Well, and that's exactly. And the complimentary element, as you mentioned, to existing training. And trainers and utility owners, all of the above, that we're always looking for something to compliment what already exists. Let's face it, book learning is not fun. Book learning, we dread it. But if you can compliment that, and I think a lot of learning management systems try to do that, but even then the images are static. Even if it's security, online security training, which I have to do in other modules

corporately, it's not that engaging, but when you have a scenario, when you have a tool or a module like this, it's very engaging and it's almost real time. It feels like real time. So I compliment you on that. You're also working on a couple of other products, SafeTalk and Simlift. Maybe you can talk to me a little bit about those as well.

Estacio Pereira ([32:57](#)):

Yeah. So SafeTalk, as I mentioned before, is these two that we want to assess the communication skills. That's the main purpose. And we are creating with AI, now it's possible to create these personas with different literacy in English and check how you are able to communicate with them and if they can understand your communication or not. So when you are on a site, you see a picture of your site, how you would explain this to your team. And this is critical again, because if you don't know how to communicate the hazards to your team, most likely they cannot understand it. And we assume that everyone has communication skills.

([33:52](#)):

We say that this is important. We say, well, communication skills, it's so important. Nowadays, you are always talking, you are presenting your product and so on. But in my time in a construction site and every time I go to construction site, there is no strategy to enhance the team communication skills. How to make sure that my workers can communicate. Usually we promote by technical skills, not soft skills. We believe that well, if you are a good technical, you should be able to communicate what you know. And that's not always true. I had professors that they were really bad. They were really bad. Well, that's

Mike Sullivan ([34:38](#)):

Right.

Estacio Pereira ([34:38](#)):

Yeah.

Mike Sullivan ([34:38](#)):

I mean, people

Estacio Pereira ([34:39](#)):

Are

Mike Sullivan ([34:39](#)):

Extremely brilliant, but they can get their point

Estacio Pereira ([34:41](#)):

Across. They can communicate, right?

Mike Sullivan ([34:43](#)):

Yeah.

Estacio Pereira ([34:43](#)):

So this is one of the other tools that we are developing. The other one is, well, I'm part of creative sentencing for rigging, hoist and lifting. And the idea is to create, again, an assessment tool through gamification. So how this tool would work, we would have several badges and the level would be initiation and advance it. Initiate beginner and advance it. And the workers would answer the questions about this. And also we have a simulator where you will move loads from point A to point B. You need to check the overhead crane, make an inspection of the overhead crane. So why we are using in this case, questions that are more. It's not specific to your site. So our idea with the badges is that, and through the problem is that once you have a new incident, we can update the badges with the information from this incident.

(35:51):

Because something that it's happening is that, well, the same incident is happening over and over again.

(36:00):

And I think this is a problem of communication. Although you have the investigation of the incident and the findings are public, the worker themselves, if they face the same situation, most likely they would have the same output outcome. Because there is no learning through this process. From the investigation until go to the worker, you have a long way. How to make sure that the workers can understand that. Make sure that the workers, if they face the same situation, will not repeat it. And in cranes, unfortunately, the incidents are repeating themselves. So the idea is to create these badges where companies can assess the worker's knowledge. So for instance, you have a shackle. How do you know if the shackle is proper or not? You have a link. What is the type of ice link protection that you should have? All of these, the workers may have during their training, but the training is concentrated.

(37:01):

The training, you have a week of Monday or two days. But you have one or two days that the instructor, they need to throw at you a lot of information. And then after that, you receive a ticket and you say, "Wow, I'm a professional. I can operate any crane." But that's the goal, is to use these tools so you can identify some

(37:27):

Potential pitfalls in what your worker could not understand in their training and then provide further information. Because that's other thing. When you say, "Well, you need 70% to pass," maybe the 30% that it's missing is the critical things.

Mike Sullivan (37:46):

The critical code 30%. Yeah. Yeah.

Estacio Pereira (37:48):

How do you know? Right?

Mike Sullivan (37:50):

Yeah.

Estacio Pereira (37:51):

Yeah. So you need to continue assess your worker. It's not because they receive it, a ticket showing that a certificate that they know how to operate that. It's that. That's the end. You need to continue to assess them and then provide them with training that it's related to solve this deficiency. The

Mike Sullivan ([38:10](#)):

Evolution of safety in general and the evolution of safety training is, it's like anything else, I suppose. It never ends. We always want to be better, safer than we were the day before. And part of that is what is feeding into this program that we are working on now, the Damage Prevention Professional Certification Program. And I think you've heard of it. And I make some parallels to the greater safety industry. Many years ago, a certified registered safety professional did not exist. And we've evolved to that point where we now have that in place, but a damage prevention professional doesn't exist. Whereas we have damage prevention managers, we have a variety of positions and job functions, whether it's a ground disturbance coordinator, public awareness coordinator that feed into the overall damage prevention process, but there really is no training for that. And that's something that we're working on too.

([39:28](#)):

And I'm just curious if you don't mind me asking, what are your thoughts on that? And are we on the right path going in that direction to try and bring in certification for a damage prevention professional?

Estacio Pereira ([39:44](#)):

For sure. I think certificates are critical, especially related to safety. You need to have these knowledge. But I think once you get the certificates, the companies should have some strategy in place to make sure that they can assess what you know.

Mike Sullivan ([40:07](#)):

Yes. When

Estacio Pereira ([40:09](#)):

You receive a certificate, for instance, when you have to study for an exam, an engineering exam, you have some things that you memorize for your exam. I'll be honest, I discuss with my students. Some of the things you just memorize and say, "Well, I'll never use these again."

Mike Sullivan ([40:28](#)):

That's right.

Estacio Pereira ([40:29](#)):

Yeah.

Mike Sullivan ([40:29](#)):

Yeah.

Estacio Pereira ([40:30](#)):

And you pass, and that's fine. You are happy. So this initial knowledge is critical. But I think companies, they need to somewhat assess what their workers know. And maybe even working with the same training agents and say, "Well, we need..." For instance, I always had this question. For instance, say for overhead cranes, you need a training every three years. Why three years?

Mike Sullivan ([41:02](#)):

Yeah.

Estacio Pereira ([41:03](#)):

I don't

Mike Sullivan ([41:03](#)):

Know. What's the magic

Estacio Pereira ([41:04](#)):

Of three years? What is the magic of three years? Why is that in three years you reduce your knowledge? Why it's not every year? Why it's not every five years? Why is three years? Why you need to be re-certificated every three years? So you see how many opportunities we have to assess, well, is three years enough? If you face a scenario where you learned it in your training two years down the road, would you be able to remember what you learned it? Yes or no? I'm not sure about this question. Without properly research, there is no way to answer this. But the certifications, I think it's critical, but it's also critical to assess the worker knowledge and identify when it's time to stop what they are doing and go to re-certificate the person again, to have the certification again to take the course.

Mike Sullivan ([42:05](#)):

And there's a lot of influencing factors for that, whether it's standards have changed or new technologies or whatever the case may be. But I agree with you, the magic of three years or two years or whatever that particular training requires. Maybe it's based on the consequence. You talk about H2S training and you don't really get a second chance if you don't know what you're doing around H2S gas. Maybe that's one of the factors that considers it, but a person could encounter H2S in so many avenues of working with excavation, any excavation. So maybe that's part of what goes into it. This is fascinating, Estacio, and I really appreciate you coming on the podcast to talk to me about this today. I'm really anxious to see where this goes. And we haven't had a chance to connect recently as the board. Summertime is challenging to do that.

([43:08](#)):

People

Estacio Pereira ([43:08](#)):

Are

Mike Sullivan ([43:08](#)):

Away. And I think when we get together again, that's when I'm awake because I'm around this summer. But I look forward to seeing where this goes. And I think this is industry changing, to be quite honest.

Estacio Pereira ([43:22](#)):

Thank

Mike Sullivan ([43:22](#)):

You. And to have the ability, again, to marry what people are comfortable with in terms of whether it's training or just what they've done in their childhood or whatever. And now they're adults and they're familiar with that scenario. And allowing the instructor in this case to determine these are the critical areas that people are missing. And now we can focus additional training on that because that gap is just

too broad and it's not acceptable. And I think it has a great uplift in terms of where this can bring safety. So congratulations to you and your team, and thank you for letting me be part of it.

Estacio Pereira ([44:08](#)):

Well, thank you so much for the opportunity to talk today about these initiatives. Thank you so much for you being in the advisory board, the steering committee that we call for this initiative. I'm sure we have a lot to learn from the companies, from the challenges they face. And I'm pretty confident that we can build something that it's really meaningful. It's not something just when you think about academia, it's not just about publishing papers. It's just something that it's meaningful for the society, for the workers, for the companies, for the overall society. Thank you so much again for this opportunity.

Mike Sullivan ([44:48](#)):

And that's the key word that being meaningful is, I use it maybe too much in my discussions with my team and have that meaningful engagement. It has to be meaningful. Otherwise, we're wasting our time.

Estacio Pereira ([45:03](#)):

Yes. And I don't want to waste anyone's time.

Mike Sullivan ([45:06](#)):

No, no, I agree. Well, I'm going to ask you right now actually, because I won't put on your radar screen, but Utility Safety Partners, we will be hosting our next safety conference in March in Calgary at the Palestine Hotel. I don't know the exact dates. I should, but I'm going to reach out with an invitation now to be a presenter there. I hope you can make it. And I'll get back to you with the proper dates, but I think this is something we all need to hear about.

Estacio Pereira ([45:34](#)):

Yeah, for sure. That will be a pleasure. Yeah. Excellent. Well, by the way, I submitted an abstract and was accepted to the conference. Oh, well, there

Mike Sullivan ([45:42](#)):

You go. So look what I

Estacio Pereira ([45:44](#)):

Know. I'm only the president. Well, so I'm there, right? Oh, good.

Mike Sullivan ([45:49](#)):

Well, then maybe I should probably read my emails.

Estacio Pereira ([45:53](#)):

I'm sorry. I didn't know if you do. No, no, no. It's fine. Yeah, but I'll be there. I'll be presenting hour tools there. And we will have a live demo in this presentation. Well, like you were saying - You are more than welcome to come and play the game with us and see how - I'm looking forward to that. How they know

identify these energy sources. So it will be really nice. And most likely we will give a reward for the best player.

Mike Sullivan ([46:21](#)):

Well, then everybody will sharpen your pencils because there's going to be a reward. It might be chocolate. I'm just going to go on a limb and

Estacio Pereira ([46:27](#)):

Immediately

Mike Sullivan ([46:28](#)):

Chocolate. Well, like you said earlier at the beginning of our podcast, a small organization, small companies, which Utility Safety Partners is, we all chip in. We all do something. And I always joke that I sign the checks and I take out the garbage. But because of that, the way we work here and we're all doing something and it's always interconnected. And so when we're talking about these modules, there's that interconnectivity that I just see people embracing. And anyway, I'm looking forward to it, and I'm so glad you were able to do this with me today.

Estacio Pereira ([47:10](#)):

Well, thank you so much for the opportunity again, and more than welcome to discuss later on with the results of these tools.

Mike Sullivan ([47:17](#)):

Excellent. Thank you.

Estacio Pereira ([47:18](#)):

Thank you.

Mike Sullivan ([47:22](#)):

That'll wrap things up on the Safety Moment Podcast. I want to thank my guest, Dr. Estacio Pereira, for joining me and for the work he's doing in this safety space. I think it has a lot of great implications and uses going forward and could be, well, not to be a game changer, put it that way. I also want to thank our producer, Stories and Strategies, and I hope you choose to follow this podcast on any directory you're listening on. Please do leave a rating. You can follow us on X at utility_safety. We're also on Instagram, LinkedIn, Facebook. Pretty much anywhere there's a social activity, you can find us. If you'd like to send us a note, you may have an episode idea. Happy to hear that. You can email us at info@utilitysafety.ca and just put podcast in the subject header. I'm Mike Sullivan, president of Utility Safety Partners.

([48:16](#)):

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