

**Michelle Ockers:**

Welcome back to another episode of Learning Uncut. Before we kick off, I would like to acknowledge the traditional custodians of country throughout Australia and the connection to land, sea and community, and pay respect to elders past and present, including those who have stewarded the Brinja-Yuin lands on which I sit for many, many years into the past. Michelle, where are you joining us from?

**Michelle Parry-Slater:**

I am overlooking Jellurgal or Burleigh Heads because I am on the Kombumerri Lands.

**Michelle Ockers:**

Thank you. And today we're joined by Ryan Byrne from Sydney Trains, a return visitor to Learning Uncut, a return guest. Hi, Ryan.

**Ryan Byrne:**

Hi, Michelle.

**Michelle Ockers:**

And Dr. Nathan Moore from Frameless Interactive. Welcome, Nathan.

**Dr Nathan Moore:**

Thanks. And thanks for having me.

**Michelle Ockers:**

Oh, really excited to be speaking to the two of you about Project Civil, which won the AITD's Excellence Award for Best Use of Learning Technology in 2025. But as we're going to learn about today, it's not all about the tech. And this solution addresses customer initiated violence through immersive practice and facilitated learning. So, Ryan, can you start by giving us a brief introduction to Sydney Trains?

**Ryan Byrne:**

Yeah, Michelle, so Sydney trains, we are the largest provider of passenger rail operations in Australia. So on a typical weekday, that means anything from over a million people across nearly 300 stations traveling around our network. Our frontline staff are really highly visible, highly accessible, and they're often the first point of contact when something goes wrong, things like a delay, a cancellation or a disruption. It's a large network, it's a complex network. And this means that our people absorb frustration of our customers when things don't go right. Sometimes that's anxiety from customers and other times that moves into things around aggression as well. So unfortunately, they're not what I'd call edge cases. They're part of everyday reality for our frontline staff working in that environment.

**Michelle Ockers:**

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Yeah, so we're talking about people who are physically face-to-face with customers here, Ryan, aren't we, working on the train stations predominantly? We're not talking about contact centre staff for this solution or were they part of the target audience for this solution as well?

#### **Ryan Byrne:**

Physical face-to-face customer service at our stations, our station staff assisting customers every day as people are travelling around the network.

#### **Michelle Ockers:**

Great, thanks for that brief introduction, Ryan. And Nathan, can you introduce us to Frameless Interactive and share a little bit about your own background, particularly your work in simulation and difficult conversations?

#### **Dr Nathan Moore:**

Yeah, of course. So look, as was mentioned, my name is Dr. Nathan Moore. So I've been a nurse for about 20 years, and a large part of that time was spent delivering simulation-based learning to healthcare providers. And yeah, one of the real strengths of simulation-based learning is the ability to replicate, you know low-frequency, high-stakes events. But one of the real challenges of bringing people together into those fixed time and location things. And so one of the things I started exploring and actually did my PhD on was the use of innovative tools like artificial intelligence and virtual reality to supplement clinician education. And particularly in this space, a lot of our work was in difficult conversations, whether that be related to violence and aggression in our workplace, or things like domestic violence interviews, end of life care discussions, and all those sort of challenging things that we know can be trained using role play, but role play as a methodology we know has its limitations. So that sort of brought me to co-found Frameless Interactive. So Frameless Interactive is a development company I was working with to build a lot of these virtual simulations. And a couple of years ago, they invited me to join them where we then started exploring how we could make these tools more accessible by scaling them outside of the healthcare system where I was working at the time.

#### **Michelle Ockers:**

Great. Thank you, Nathan. So Ryan, tell me from your perspective, how and when did you decide to explore a simulation approach for supporting your frontline staff with dealing with these kind of difficult conversations, aggression and violence? How and when did you decide to explore this with Frameless Interactive?

#### **Ryan Byrne:**

Yeah, so we've previously rolled out a number of workshops and training programs which touched on communication skills and de-escalation skills. And really from our feedback that we actually received at the end of our programs and in evaluation and lessons learnt, our people highlighted the one thing that they didn't enjoy about our programs was the role play and participating in role plays. So we were talking internally about, okay, how are we going to look at a new program to kind of bolster those skills on de-escalation skills and communication skills, but not using a traditional role play because our people have told us pretty clearly that they actually don't enjoy participating in it. And therefore, we were talking with some of our

stakeholders around technology, what we could do with that. We were looking at interactive videos and other tools that we used before. But one of our internal stakeholders in our innovation and capability team actually shared with us some work that they're aware of that Nathan and the team at Frameless had done with health. And so they shared this bit of a sample of that AI tool. And it really, it captivated us to think, okay, how could we actually use this within our environment? Obviously not within the health sector, but within a rail environment. And from there we, yeah, went through the process to identify how we could work through it and use AI. And that's where we'd engage with Nathan and his team.

#### ***Michelle Parry-Slater:***

It's a good example there, Ryan, of how we can learn from adjacent communities. You know, obviously, Nathan's experience was in health, but for you at Sydney Trains, those frontline staff, when it comes to customer aggression and violence, it isn't just a business issue, it very much is people that you're dealing with. And I appreciate that you were listening to your teams. You know, we don't like role play. Who likes role play? It doesn't ever feel real enough. Can you sort of talk us through a little bit about what shows up in the moment for staff when they're facing an aggressive customer or a customer like you said earlier about somebody who's anxious. They're going to miss their train. They're going to miss their connections and they've got that anxiety. You know, what's the emotional cognitive behavioural load for that member of staff?

#### ***Ryan Byrne:***

Yeah, definitely. And I think the key thing to keep in mind when we're talking about capability at Sydney Trains, we're not talking about some kind of abstract capability that people need to develop. We're talking about real interactions that can escalate very quickly in an environment that's quite noisy, emotionally charged at times. And as you mentioned with that anxiety piece, you know, if something's going wrong, people have their need to travel, you know, they're trying to get to work or there's something's gone wrong through no fault of anybody, you know, it might be a severe weather event. So one of the key things that we constantly heard from our people is that they knew what to do in theory, they know what to do, we have de-escalation models to follow. But in that high-pressure moment, their instincts take over. And so if you think of the old fight, flight and freeze response that we all can go through, depending on the situation we're in, it's not about the individual not being able to overcome those responses, that's just how we're wired as humans. So when we're working with our people, it's really about how to allow them to have that repetition and have that practice to develop that capability, almost that, I don't know if you'd call it muscle memory response, but let's call it that for the sake of this, that they've practiced this situation enough that they can then go into a confronting situation and implement what they've been practicing, not just what they've read or they've been told is how to respond.

#### ***Michelle Parry-Slater:***

It's almost the gap between knowing what to do and then being able to do that under pressure. For them to practice that, you know, it wasn't enough for you to just rely on policy or procedures or the annual refresher training. We needed to do more.

**Ryan Byrne:**

Yeah, I think if policy and procedure and annual refresher training did what everybody expects it to do, we wouldn't have a role within the L&D world. I think that we are that gap between what people are meant to do and often what they know they have to do, but actually practicing and getting that done. So implementing something which allows people to practice in a safe environment with their peers and under the support of a facilitator really assisted to close that gap.

**Michelle Parry-Slater:**

I think if you've got any build on that when it comes to that knowledge gap, you know, knowing what to do and then doing it with your experience and your background there. It isn't clearly enough to just rely on the policy and procedures. What more have you got to add?

**Dr Nathan Moore:**

Yeah, absolutely. I mean, if we think back, I mean, I know we have an educationally focused audience here, but if you think back to Bloom's revised taxonomy, it says, you know what, anyone to move from a novice to an advanced level in anything, they have to progress through that remembering to understanding to application level. And one of the challenges with traditional methodologies, you know, whether it be an e-learning solution or visualising a video or even maybe an interactive video, we're not progressing to that application level because whilst they may be you know, seeing things and abstracting their own reactions to it, they're not actually applying it themselves. And that's really what led us down this path of going, how can we make particularly asynchronous education? Interestingly, that was our initial pursuit, was to find things people could do on their own. In complete honesty, a lot of people tend to use this in a workshop location anyway, but the idea was to get away from that click-along-with-me e-learning where maybe we get a bit of remembering or understanding, but definitely no application, to give people something they could use to apply these skills to get, in Ryan's words, that muscle memory set up of, you know, they have an idea what to do when this thing comes up. It's not the first time they're seeing it. when they're in front of the aggressive commuter or in front of the aggressive patient in the ED or the loved one whose loved one has died, these sorts of ideas. So being able to rehearse that in a meaningful way and apply those lessons that we're teaching them using other processes.

**Ryan Byrne:**

I'll probably add to that, Nathan. The traditional approaches which we all use, because they do have some merit and they do have some value, they really struggle to recreate that emotional pressure that people actually feel in the real world situation. So, you know, that sense of unpredictability where you don't know how somebody is going to react to what you say or what you do. using a tool like we did with the civil tool, it was unpredictable. It was based on what you said and then had an unpredictable response. And I think that emotional pressure and that unpredictability and allowing people to practice with that allows them to go through that journey, as you mentioned, of the taxonomy in terms of that applying it in that real world space. I think that's critical that we allow people to practice.

**Michelle Ockers:**

Yeah. So, talk to us about what the learner experience is if I'm coming into a workshop, because I think most people are using this tech for the first time, engaging with the simulation in a workshop environment, what's my experience of the whole process here? And maybe, Nathan, if you can walk me through that.

#### **Dr Nathan Moore:**

Yeah, of course. So basically there's two elements to it. The first is the way the user can engage with it. And so these experiences were built to be interacted with either through a virtual reality flat screen on a PC or in some settings over a mobile phone. So the idea was that they could, you know, multimodal access that brings with its own strengths and limitations, which we could definitely explore a bit later if you like. But the experience is unchanged depending on which of those modalities you're engaging. So what these will be faced with is a person, a virtual agent standing in front of them who they can interact with verbally using their own words. They can say what they want and then within a matter of seconds, the AI agent will come back to them with a response built upon the scenario we've presented them with. If I dive into the tech pathway a little bit here, what happens first of all is we use a speech. First of all, we build out the scenario. In Project Civil, they're on a station, we replicated the environment appropriately, put in some of the familiar things around it. We then have the user presented with a scenario, you know, you're faced with a patient, sorry, with a commuter who's been delayed because there's been track works or someone needs a bathroom and they've all been locked for cleaning or whatever it might be in an associated scenario. Then what happens is the user says what they want to say, they talk to them, and we use speech-to-text translation to do that transcription. So it interprets what the user says, transcribes that. That text is then analysed for intent based upon the scenario we're presenting the user with. So, you know, say it's a frustration thing, you know, it's a really annoyed commuter. We determine what the user said and we establish, we use our engine to determine would that be inflammatory or de-escalatory in this situation? That then maps, is then given a numerical value to give an idea of, you know, has this patient, has this person gotten more agitated or reduced their frustration? That frustration score then has two key impacts. One, it maps to different animations so we can play with some non-verbal communication skills to show like what some of the signs might be for someone who is frustrated or whatever the emotion might be. And then the second thing is the frustration score goes to the AI itself. And so the novel component here is we have what's called API access to the large language model, where basically that just means we have a pipeline to talk to an AI agent that we've built out. For that agent, what we'll do is we'll tell it, you are a businessman who is in a rush to get to work, and if you are late again, there'll be consequences for your career. The person talking to you is at fault. We tell the agent all these backgrounds or in a healthcare setting, it might be you're a good son, you're stressed out, you're annoyed, the nurses are lying to you. Whatever it is, we write the persona, and then we tell it where it is that they're standing, then what the user says goes to them, mapped to their current frustration score, and then the AI draws upon that to come back with a human-like reflection and response, which we then use text-to-speech to generate back. And that all happens within a couple of seconds. So the user talks, and the agent then draws upon what they've said and comes back with an unscripted response to the user to replicate that role play.

***Michelle Ockers:***

So you use the word unscripted there a couple of times. So this is not like a branching scenario in e-learning, right? It sounds like it feels quite different as an experience.

***Dr Nathan Moore:***

Yeah. And that was by design. So we know that some of the scripted narratives can be useful for mapping out what users could say. You can use that to model what they might say. One of the important things for us, particularly when I was creating this to start within the healthcare setting, was that the user used their own words and that you had something that would come back because the realities of interpersonal communication is you can say the perfect thing and it just may not work. And you could articulate it, and you may need to change the way you do it. You might need to repeat yourself. You might need to, whatever that might be, it was important to us to have some of that variability, which the AI brings to it. Now, I say there unscripted, you know, it still is ring fence to say, you know, here is the purpose of the scenario, and it'll come back related to what it is. But by using the AI, it means you could say whatever particular acronym you might have or something, it's a perfect sentence and the person's still going to be a bit pissed off at you and maybe they're having a bad day and it's not going to work and you're going to have to change your tact to try and de-escalate in an alternate way. So, yes, that was by design to bring that variability into the experience.

***Michelle Ockers:***

Yeah. You also mentioned nonverbal communication, of course, which is a critical part of our interactions with others. And you talked about the customer avatar, the persona on the screen being able to use nonverbal communication. But it sounds like the input from the learner who's practicing is converted to text. So you're not getting nuances of tone, let alone body language. How does that affect the realism of the practice? What are the pros and cons of that? And what's the design choice behind doing it that way?

***Dr Nathan Moore:***

Yeah, absolutely. And, you know, one of the things, I am with all of this is extremely pragmatic, you know, like all tools, we have to use the right tool in the right place. And one of the limitations of this is you're right, like, the person's body language isn't reflected in this, the user's body language. And what we're able to do is demonstrate some of the non-verbal or body language from the aggressor, the stressed out person, whatever it might be. But yeah, we can't map that. There are ways you can do it. There are technologies you can use but those technologies like external sensors and things like that really reduce the scalability of it because you're back in a situation where you have to go to a fixed time and location as opposed to I can install this on my phone or as transport wanted to look at, it could be on an iPad, whatever it might be. They can use that when and where they want, as opposed to if we tried to map that, yeah, you would be tied to a location. And so just with those limitations, you know, we acknowledge it and we know this is just one piece of the puzzle. This isn't the only training solution we're looking at for these problems, but it does let somebody have a realistic dialogue and think on the fly when someone swears at them, they have a second or two to respond to that with their own words

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unprompted. And yes, it's not mapped to their body language, but at least they're having that discussion. So just acknowledging that you're still going to have trainers and educators who are going to be facilitating these things and giving feedback on scenarios, but it just means the value of that face-to-face training, at least in our opinion, will be increased because it's not the first time they're having to respond like this. So that trainer, you know, when Ryan's team are there, giving genuine feedback about these scenarios, they can focus on things like body language or other methods of communicating, how they call for help, other things that the scenario may not actually tackle, the asynchronous AI scenario may not be able to support.

#### **Ryan Byrne:**

I'd probably add to that as well in terms of, the AI supports the learning and what's happening. It's not the teacher in itself, it's the facilitator around that, the person's learning from their interactions and the feedback through the AI. The Civil Tour for us, it didn't replace our facilitators. It elevated their roles in terms of what their responsibility was, so no longer did they either have to play the angry customer or the frustrated customer. They were able to let the AI handle that repetition and simulation of that, and they could focus on reflection, coaching, sense-making, and allowing people to reflect on the scenario. We also, in our design approach, we actually embedded the use of the AI in a much broader workshop. So the workshop itself that we ran it through were based in a stationary environment, so people could actually walk around and get that situational awareness before they even knew that they're going to be using an AI tool. you know, one of the activities as the icebreaker, we got someone to walk around and identify things at the station and come back and asking the questions to really ground it in that real-world scenario. We then went with some reflection and, you know, remembering of models and de-escalation tools that we had done before, and then we brought in the AI tool and now we're able to practice that in that environment there. And in order to, I guess, fill that gap on body language, we then did use some facilitated scenarios where the facilitator then played that character and got into their space. So it allowed us to bridge that gap where we didn't have the whole thing being role-play-based session. We had the reality that the AI brought to enable that repetition and that practice. And then they got to go out and practice again in that real-world environment, away from customers but still on a platform, to actually have that confrontation or that discussion in the real world. So I'd really say it supports, it doesn't replace that facilitation. It just made our session so much better and so much more practical. And we're able to scale it. We didn't have to go and invest a lot of money into getting actors to come and play real characters. The AI did that for us. So yeah, I'd say it's repetition and simulation is really what it brought.

#### **Michelle Parry-Slater:**

Ryan, I love the fact that you've talked about real world and AI in the same sentence. It's like, this is the real world that we are living in now, isn't it? AI is here, it is part of the world. And the fact that you talked about your facilitators there, have they had to shift the way that they facilitate as a result of working alongside this AI? Or is it simply that they have got more time to do the sense-making part?

#### **Ryan Byrne:**

I don't know if they had to shift the way that they facilitated it, it was just another tool. We had used some of the branching e-learning scenarios in sessions before to enable some of that decision making to happen and they would be on the outside assisting with the sense making and the coaching. We have some really great facilitators that work for us, so there wasn't a major shift in how they facilitated, but it was allowing the AI to do its job, not to try to jump in and play the character. I'd also say it was allowing the participants to actually not answer the way that we wanted them to answer whilst we have models and de-escalation techniques that we need to use, allowing them to make mistakes so we could actually coach them on that afterwards. So I wouldn't say they really had to shift it. It was actually quite natural in the way it was a tool. We set it up, we briefed it, they used the tool, we were coaching on the back of it. It was probably a little bit easier than I thought it would be to have that dual facilitation approach between a human in the room and AI on the screen. Yeah, they picked it up quite easily and ran with it.

#### **Michelle Parry-Slater:**

I'm curious then about the ethical consideration, the opportunity for us to what could be considered, you know, create and evoke emotion. I really agree. When somebody has an emotional response to learning, they remember it so much more than if they have a passive response to learning. So I'm really on board with what you're trying to achieve here. And it's not just emotion, is it? It's building empathy. It's understanding how to build on judgment and that ability to adapt under pressure. So these are all great outcomes. But I am curious to know what ethical considerations shaped your design decisions when you think about using AI, when you think about guardrails in place. Nathan, do you want to pick that up?

#### **Dr Nathan Moore:**

Yeah, of course. I mean, there obviously are a number of broad considerations around the use of AI in general. I mean, some of the key considerations I would say we had were, you know, in the healthcare setting in particular, you know, there are lots of discussions and real power to be established from AI, but we are all working on exactly what these things would look like. With the context we used, I think one of the things that put us at ease is we aren't here using AI to prescribe, to guide clinical treatment or anything like that. What we're using the AI for is something it's really darn good at, which is replicating interpersonal communication. It's built upon communication styles. It's built on written, you know, it's covered the internet and, you know, there's questions about art and all, there's a whole lot of things around this. But for us, it was the fact that the AI has been trained on how people communicate online, written text, written interactions, these sorts of things. And so when you talked about the guardrails, when you touched on that, so what we had is, I like to give this example, it's a minute or two, but it kind of paints the picture of why I think this is an effective use case. I was invited to the NHS to present at their giant conference a little while ago and I was doing a big screen record of one of my agents and just, you know, the voice wasn't quite working and I was like, I can't demonstrate that, the transcription wasn't perfect. So I was like, I'll just do a longer one and I'll just record it all and I'll edit down the bit I want to show. And so I wanted to make my guy angrier, so it looked more realistic for the de-escalation. And I said, oh, Louie, you need to sit down and shut up. He's like, why would you talk to me like that? I said, oh, because I need you angrier. He's like, why do you want me angrier? I'm like,

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well, I'm going to a conference, and I need you angrier for the conference. He's like, I don't want to go to a conference. I'm like, oh, don't worry, Louie, you're not going to a conference, I'm going to a conference. And so I found myself sort of spiralling in this conversation. But what was great was the next prompt from Louie was, well, can we just stop talking about this and talk about my dad? Because from the scenario's perspective when we'd written it out, it was you're a stressed out son, you want your dad to be seen by a doctor urgently, and the nurses are all lying to you. So the focus of the scenario was to get the nurse or whoever it was to get his father seen by a doctor. And so even though we were sort of went off script a little bit to the side it knew to swing this back in because end of the day we're talking about an educational experience here this isn't just about you know a conversation bot for you to chat with like it's got an educational outcome, there is an end point we are trying to achieve with this and so yeah actually having these sorts of guardrails in place to ensure that you know we're not wasting people's time at the end of the day we have a responsibility as educators to train our workforce and not have them you know wasting time around these things and so just that was something really comforting that sort of reassured us a bit about the way that it views these processes.

#### **Michelle Parry-Slater:**

Better than an actor really then because Ryan mentioned that you know you could use actors to do this but actually are they going to swing you back to the outcomes that you've pre-programmed your agent to offer?

#### **Ryan Byrne:**

I'd probably say, Michelle, in regards to when we were in the room and using this with our participants and from an ethical perspective there, it was about being really clear with our team on what the tool can and can't do or what it will and won't do and what it's for. And one of the key pieces for us is this is not about performance management. Whilst it does give a frustration score of where the AI character is going, whether you're making it more frustrated or de-escalating their frustration, We're not recording that afterwards. It's kind of data dumped afterwards. It's used purely for the purpose of that coaching in there. And that actually enabled us to encourage people sometimes to not treat it in the best way, to not give it the best customer experience. And often it brought a bit of a bit of light to the session in terms of actually give it the worst customer experience just to see. We often use that to actually get people to become a bit more comfortable with using the AI tool. We're not testing you. We actually want you to escalate it and demonstrate the worst customer service you can. So then when they use it the next time, they can actually try to de-escalate it and it would reset in terms of we'd use a different scenario. So really clear on what it can do, what it can't do, and the intent of it. You know, for us, I guess, within our world, it'd be the same within health, Nathan. You know, ethics, they're not an add-on. We've got to consider that as part of our design and how we use the tool.

#### **Dr Nathan Moore:**

Yeah, absolutely. And I was just going to jump in on that idea of what it does and what it doesn't, because Ryan's lent into a really interesting part that we've sort of unpacked as it's gone along, is sort of tempering those expectations a little bit with the educators, with the managers around this space. Because one of the things, I

think it was Michelle, you picked on a bit earlier about the unscripted. Now, because of that, it means you have an experience that does sort of reflect these interpersonal communication skills quite well, there's a bit of variability and all that, but what it does do is changes the suitability and applicability for assessment processes as an example. Whereas if you use something like a branching narrative where you know if they do A and B that's correct and they do C or D it's wrong and you can sort of map that out, this isn't built for that, because the fact is, you know, Ryan, Michelle and myself, we'll go through, we do three scenarios, we're all going to have slightly different experiences based upon what we say, which is great for that learner self-assessment, you know, I reflect on my own performance as I'm going, But it's not so great for a structured assessment process, which, you know, I've had people say it to, you know, to Ryan's point, oh, this is great, I've got some people, you know, their interpersonal communication skills aren't great. Could I use this as an assessment process? I'm like, well, actually, no, this isn't suitable for that at all. So yeah, I guess just thinking, you know, like it is a tool and again, all tools, use the right tool in the right place for the right purpose.

#### **Michelle Ockers:**

Those words could have come out of your mouth, Michelle Parry-Slater. So one aspect I'm interested in, and you've kind of teased around it a little bit here, is around psychological safety. So one of the things you've said is we let people know that the data around those frustration scores isn't retained, this isn't assessment, this is practice. We've talked a little bit about some of the ethical guidelines you applied here around the use of AI. How did people respond to AI being used in this way and to practicing with AI? And did it raise any issues around psychological safety from people?

#### **Ryan Byrne:**

I can respond from our sessions that we're in, and Nathan, from abroad, you've had a lot more experience in this space than me, but for me, we're looking at that psychological safety. We just need to remember that customer-initiated violence, it's a real thing. It comes with real emotion, that psychological impact. Our people have dealt with situations out there in the real world that, you know, we have actually modelled these situations on. My team worked with Nathan very closely and actually I think we had about 12 scenarios we wanted, we ended up deciding on three that are really based on everyday interactions that people have and the example there of the bathrooms are closed for cleaning, we can't unlock them because people will slip, that can actually have a like a real world scenario that somebody has been involved in or the train's running late. So really it's about the facilitators being aware, as they should in any of these sessions, about the individuals in the room, and people might have different triggers or different experiences that we're aware of or not aware of. Always, I guess in the housekeeping of our sessions, making people aware if they ever feel uncomfortable, let us know, have a side chat. They can leave the room at any point if they would like to. And then it's in the way that it's actually facilitated. Often we did like to start off with a bit of a you know, a gamified approach of let's frustrate the AI as much as we can to actually just make it a little bit more fun, especially people that haven't used technology or aren't comfortable with AI or technology, and to get them up the front and say, hey, have at it, just have a bit of fun. Everybody's laughing, to bring that comfort level. Before then, we say, ok, let's

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switch modes. Let's look to de-escalate. And really trying to ground it in, you know, what you're doing here, you understand, you've got the experience. And even if it goes wrong, there's actually nothing that can go wrong. This is an avatar on a screen. You can press stop whenever you want. You're deciding when you're talking, when you're not, you can actually have a big pause if you really want to. So setting that environment for them to actually feel comfortable in the room and grounding it in their real world experience. But yeah, I think the facilitators being key that if somebody did feel uncomfortable to be able to have that conversation. What we did find is that often people would get to the end of the session and say, hey, can I have another go? And they'd actually want to stick around after the session, which is great, except for when you're in a rostered work environment and people need to actually go and work their shift. But people, once they'd had a play with it, they actually wanted to, and those people that were hesitant actually were really comfortable in the end. The request to, we haven't done it yet, but the request to have it available on their phones or on their iPad to use in the way that Nathan said it was originally designed at their own pace when they would like to use it, that's definitely something we're going to look down the path of because people can actually do it on their break when they've got some downtime. Yeah, so from a psychological safety perspective, key from the facilitator point of view, granted in people's real world environment, but just being cautious that people have real experiences in this space. Nathan, I'm not sure in your space, you've used this a lot wider than I have.

#### **Dr Nathan Moore:**

Yeah, I mean, there's a few pieces to it. I mean, you covered a lot of that idea of, you know, the principles of emotional learning, you want people to learn in a similar environment as they're going to have to apply the principles you're teaching them. And the fact is, you know, these are confronting spaces. So there was an element where we did want to map this to be somewhat confronting, which brings with it an element of, you know, we needed to consider psychological safety. So there are a few ways we approached it. One of the major ones, as Ryan said, is just through the facilitation process. You know, whenever we run simulation, there's lots of, you know, Chatham House rules, what happens here stays here, this is a learning experience, all those sorts of things were really important to us. For some of the other contexts, we did a lot of work in the code black space. So in healthcare, that is a physical threat against a staff member. And, you know, in the healthcare context, that can involve things like chemical and physical restraints. You know, it can be quite confronting, but interestingly, it was built for the purpose that clinicians sometimes hadn't been exposed to that. And the idea was we could recreate these situations in a much safer, even though there was a psychological risk, it was still a safer environment than them being exposed to it in the first time in reality on the clinical floor. So that was definitely factored into it. There were some interesting learnings, particularly in the VR space. So a lot of my original PhD research was focused on using these tools in virtual reality. Our hypothesis was increasing the visual and psychological fidelity and immersion of being in that replicated environment. What was interesting was one of the psychological barriers that I learned and we actually published on and came as a little bit of a surprise to me, was not related to the psychological safety of the experience, but the psychological safety experienced by users in a large group experience of having VR headsets on and

having people around them talking but them not being able to see their surroundings and feeling quite exposed because they couldn't see who was around them they just heard these voices and yeah it was some of those things actually related to the methodology rather than the experiences themselves. So, you know, we made it really clear to people, you know, you're in a safe space, no one will touch you without your consent, all these sorts of things, being really explicit about that, because yeah, just the nature of having your external surroundings occluded by a device and being in an alternate reality, that brought with it some psychological challenges, which were quite interesting. But surprisingly, despite building rather confronting experiences, we haven't really had any issues from it that couldn't be managed with setting an appropriate scene beforehand and then having those skilled facilitators. And obviously, we have employee assistance, we provide the numbers and all of that, but largely, it hasn't been an issue.

#### **Ryan Byrne:**

And probably something Nathan, when you mentioned the code black piece, which we carried on the back of that, where in our scenarios, people actually had the option to call the security control center, which is a behaviour that we're trying to build. So even in that facilitated session, if somebody did feel a bit uncomfortable, it was up to them and their own personal risk assessment as if they're in a real-world scenario, they could actually just click, call the SCC, our Security Control Center, which is a behaviour that if you're not feeling comfortable, we want you to walk away and call security, we can get somebody to assist you. This isn't safe anymore. Yeah, and that's, we wanted them to decide when they felt that they weren't safe. And it was something that in our sessions that when you actually run scenarios and we actually had some video scenarios before the AI tool came up where people would look at real life events and decide when they would walk away and when they wouldn't from security footage. Something that I noticed from being in the room was often based on somebody's size and physical size is when they would actually decide when they didn't feel safe and when they felt safe. There was a pattern where often larger people would feel safe, but the reality is the safety was the same regardless of who you were, it was just their own feeling. So yeah, their perception of it. So giving them the opportunity to decide when they felt unsafe and to step away and call security, it allowed that bit of a safety blanket, even in an AI scenario where there is no safety issues, they actually had that psychological safety that they could opt out whenever they wanted.

#### **Michelle Ockers:**

They're such interesting considerations. Was there anything you tried to do or wanted to do that you decided not to go ahead with?

#### **Dr Nathan Moore:**

I mean, I can talk to it from what we've been able to do in Frameless. The realities are we're somewhat of a small firm of people who are passionate about doing this stuff. And, you know, there are some things that we know we could do that were going to be challenging. So, for example, we talked about body language and the lack of mapping. There are some things we could explore and that we have experimented and toyed with of being able to consider the users tone and voice and some of those other like the tonal and the voice quality pieces. One of the challenges

with it is the way for us to do that is, as I'm sure the listeners here will see the difference between Ryan, myself, Michelle, we all have different volumes, we all have different cadences and tones and all of that. And often a lot of the ways in which someone can determine you know, that is the change from their baseline. And so if we're going to start doing things where we're mapping a baseline, you need some sort of system to record that, you know, whether it's a discussion first to set the baseline with the user. So then when the scenario starts, we can then analyse differences from baseline. Are they louder, faster, softer, slower, whatever it might be. And that brings with it an element of orientation. Just actually structuring, you know, how you want to, you establish this baseline in that registration process we knew based on the end use of these tools. It sounded perfect in our head, but the reality is Ryan's going to have a group of people who will probably show up to use this thing for a one-hour session or something. They're going to use the AI for 20 minutes. If I spend 10 minutes with them orientating training to their own accounts, with their own setting it up and getting a baseline, I know there's huge problems in the actual deployment of this. So, for us, it was something we wanted to explore. We thought if individual users were tracking their own performance over time, maybe it's something we could do, but we've not done it yet because we just saw that that wasn't going to be how this tool was going to be used in reality and just wasn't worth us pursuing at the time.

#### **Michelle Ockers:**

Yeah, another example of how you've talked about understanding what it is you're trying to use the tool for and banking smart choices around that and being practical. I have one other question about the solution, and this might be a little bit of a naive question. When I use ChatGPT, I find over time, it started responding to me in different ways. I feel like it's getting to know me a little bit through our interactions. You talked a little bit before, I think, Ryan, you said you encourage people to kind of upset the avatar. I'm assuming then that the avatar has no memory or its behaviour doesn't change in response to past interactions. So it's coming in fresh in accordance with its guidelines and its design to every interaction. Is that the case, Nathan?

#### **Dr Nathan Moore:**

Yes. And again, by design, because this was all the scenarios we were building is not about an ongoing relationship with this family member or commuter or whatever it might be. The intent was always this to be a little bit more transactional of, you know, such and such is annoyed at me because of this reason. We have our 30 second, one minute, two minute, whatever, five minute conversation, and then it moves on. It is something that we've considered exploring in other ways, but the challenge with it is, it was basically making it do something we didn't need it to do for the context we were deploying the tools in.

#### **Ryan Byrne:**

And having tested this system a fair bit myself, I even got my kids to have a play around with it as well to see how they went. My daughter's a lot better at customer service than my son. I can say that. One of the characters, which was a gentleman who was drinking and smoking on a platform, and he was quite irate, and he was probably the most aggressive of the customers. I think I'd had a 10, 15 minute

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discussion with him one time and actually really got to know him. And I thought, I'll use that the next time I talk to him to deescalate him really quickly. And he actually got quite offended. How did I know that he has issues with his wife and that he's been getting in trouble at work? Because he couldn't remember that I'd got all this information out of him. So it didn't even help me trying to game the system and show how great I am at deescalating because he couldn't remember. One thing that I was actually quite amazed at is how much detail and information these AI tools have in terms of their backstory. And I'm not sure, Nathan, whether that's all programmed or whether it brings some of that itself and creates it based on what you program it. But there's a fairly detailed backstory in all of these characters that most of our people will never get to that backstory because it is a 30-second interaction.

#### ***Dr Nathan Moore:***

And so that, yeah, and that's, again, back to part of the design is because, and I don't want to get too much into it, but the way these models sort of work is it's based upon linguistic models and likely responses. And so it's actually built, we don't tell it to do those things. What we do is we'll say, for example, the one, one of the ones I know the best is Louie, aggressive family member, the one I mentioned, Louie's dad is unwell and he's trying to get him seen. We tell it you're a good son, we tell it you're stressed, but then it extrapolates upon what it means to be a good son. And so it builds upon that. And so when you start to dive into it, it's not programmed in because essentially for us, that's not the main point of the experience. But if someone wants to dive into it, it increases that realism by having some of that backstory there. But it's not something that it was important for us for the structure of the educational experience to be there, But by using these AI tools that are able to build upon it to an extent, thinking back to my guardrails description of they still want to get to an endpoint, it means they can increase that realism by just building upon the backstory that a 40-year-old son might have had. It just sort of builds that for that particular interaction.

#### ***Michelle Parry-Slater:***

That's the nuance of using the right tool, isn't it? So this is why AI has got the advantage here over a branched video or over a role play in a room with an actor, for example. So thanks for sharing that. Of course, all learning needs to have impact. We need to know, did it work? This is what's kind of on our lips at the moment. What evidence do you have, Ryan, that so far this approach is actually making a difference?

#### ***Ryan Byrne:***

Yeah, so for us, it's looking at indicators because we don't deploy these learning solutions in isolation. We do deploy it with, you know, policies and procedures being updated and what's out there. It's on the back of other programs that we've run before, but we're also big believers in leader-led learning and their leaders having conversations and coaching. So what we rely on is indicators from our people in relation to it. We look beyond the completion, it doesn't really matter how many people go through our courses, it's what are the indicators that are coming off the back of that. So really some of those indicators around confidence and people reporting around their confidence, their ability to practically apply these, and then also how they feel they've retained that knowledge and practice from it. So the other

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piece that we saw as an indicator was around how teams were talking about de-escalation. It used to be something that it was an avoidance or you'd discuss a scenario and what's occurred to people in the real world and what we had reported back from some of our leaders who are supporting this was around their teams are actually talking and more sharing their learning and their scenarios from what they've done in the classroom using the tool, but also when these incidents actually occur. So that shared learning, I don't know if you'd call it social learning, but it's what's happening out there and people are sharing their scenarios and bringing it as a conversation. That's really a strong indicator for us that it's actually having an impact on our staff. We don't have other programs we've had before. We've had hard data points that we could say customer experience has increased from X to Y. We don't have that for this because it's really around how people are interacting in the network, how they're going about it on a day-to-day basis and what they're reporting back to us.

#### **Michelle Parry-Slater:**

And you're measuring this in a very human way as you started this whole conversation that this is a human problem that you are solving. So as we start to wrap up today, what advice would you give to L&D professionals who are tackling those complex human problems? They might be considering technologies like AI as part of the solution. Ryan?

#### **Ryan Byrne:**

Complex human behaviours and building these behaviours, we all know a one-off event isn't going to resolve that. So you've got to actually think for the long-term, how are we building this over the long-term using, whether it be an AI technology that you're using to support that, spaced repetition, which we've done before and used throughout these pieces as well, workshops, leader-led briefings, for me, it's actually looking at it over a period of time and where you're heading. And really, it's about providing people the opportunity and the space to practice, to provide feedback and to have that safe environment. If we are looking at technology, technology can help. Technology definitely helped us in this case, but it needs to be grounded in real human behaviour. If the scenarios weren't grounded in what people actually experience every day and it was some abstract, scenario that they're never going to come across. They're not going to pay attention to it. They're not going to actually take it seriously, really. So when you are designing, keep that human at the center of it. Ask your people what are the scenarios that they're struggling with, that they're facing on a day-to-day basis. Look at your data around these scenarios and what you're doing. And yeah, so really design for the real world. Don't design for the idea world. Our people work and live in the real world.

#### **Michelle Parry-Slater:**

Thank you. Nathan, anything?

#### **Dr Nathan Moore:**

Yeah, so I think for me, I mean, I guess, like back to, we've said it before, you know, just use the right tool in the right place. Be aware of what's out there. You know, there was an element of what happened that really was kismet and the stars aligning in that I had an organisation willing to support what we were trying to do, introduced

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to the right research partners through the University of Sydney where I ended up doing a PhD with the right development company in Frameless to build these tools out, which I then had the pleasure of joining and further building these things. So, you know, horizon scan, keep your eyes open. Don't look for technologies to cram in as a solution for your thing, but be aware of what's happening, be aware of those developments and try to join those dots a little bit differently because it's when those things happen that we can really start to move the dial and try to do things in a different way. But yeah, don't just have a solution you're trying to cram into problems, stay problem focused, stay learner focused, and then look at what the new emerging tools or existing tools that might be able to use in different ways. So as a rough, as a slight divergence on virtual reality, you know, it's been around for a really, really long time. But when the Quest 1 came out, all of a sudden we had a three degree of freedom headset that was standalone, that was about a fifth of the cost of anything else in the market at the time. So all of a sudden, we didn't have to get a high-powered gaming rig, take people to a sim lab, or put a laptop in a backpack. We could just give them a headset and play in the TV room. That was a development in the technology that enabled these things to happen. So I guess just, yeah, horizon scan, but with a view of what's out there and how can I solve the real problems that we are having.

#### **Michelle Ockers:**

So being digitally curious and choosing your response as well to sum up what I'm hearing.

#### **Dr Nathan Moore:**

Be a bit pragmatic. Yeah. Realistic.

#### **Michelle Ockers:**

Fantastic. So listeners will have links to Ryan and Nathan's LinkedIn profiles in the show notes if you'd like to reach out directly to them and find out a little bit more. If you've got a question that we failed to ask that you're burning to ask, I'm sure they'd be very happy to respond directly to you. Thank you, Nathan and Ryan, for joining us today to explore Project Civil. It's been a fascinating conversation about some things I certainly wasn't aware of, so I've learned a lot out of it. Thank you both.

#### **Dr Nathan Moore:**

You are welcome. Thank you for having us.

#### **Michelle Ockers:**

And listeners, we don't often ask this, but it really does help to get the episodes of Learning Uncut and the great work of guests like Ryan and Nathan into the ears of more learning and development professionals so we can keep learning and growing stronger together. If you leave a review or a rating on your podcast app of choice. Thanks for that. And we'll catch you in the next episode.

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