

NEXTcast Season 2 Episode 7: Dennis Kappen and George Paravantes

- Nathan Whitlock: Welcome to NEXTcast, a podcast about teaching and learning at Humber College. I'm Nathan Whitlock, an editor at Humber Press. On NEXTcast we talked to some of the faculty and staff who are leading innovation at Humber, both inside and outside the classroom. In this episode, we talk to Professors Dennis Kappen and George Paravantes about a project related to augmented reality they recently presented at a major international tech conference.
- Nathan Whitlock: Welcome to NEXTcast, Dennis, George, well you've been working on a project over the last few months, over the summer and into the Fall.
- G. Paravantes: For sure.
- Nathan Whitlock: Could you tell me a little bit about it?
- G. Paravantes: Definitely.
- Nathan Whitlock: How did it start and what was the goal?
- G. Paravantes: I think one of the areas we kind of started out with, there was one moment I can remember where I had a student conversation with a student named [Dhanu 00:01:01] in my course and he was interested in getting involved in the automotive industry with interface. And we all know where the automotive industry is headed with autonomous vehicles and I thought about working on a project with him, but we didn't know what. And I remember going to Dennis and kind talking about ways that we can work together and that became a bigger conversation and it made me curious about a conference that was coming up, called Auto UI. And that was around January and I was curious where was that conference happening this year if we did do this work? And it turned out it was in Toronto and that was a spark. I said, there's no way this conference comes to Toronto without us being part of it. And so I remember having this conversation with Dennis, I was like we need to build something and that got us down the road in January on this project around this topic of autonomous, semi-autonomous experiences and augmented reality.
- Dennis Kappen: Everybody was doing a lot of great stuff for this in semi-autonomous research, but how could we be different? How can we differentiate ourselves from the pack so that we could get in, and that was our question that we had.
- Nathan Whitlock: So you knew you wanted to get into that conference.
- G. Paravantes: Yeah.
- Nathan Whitlock: You knew it was going to be to do with automotive-
- G. Paravantes: Yeah.

Nathan Whitlock: ... technology and autonomous cars?

G. Paraventes: Like one of the things that also around that, we wanted to bring students on board, because we looked at this as possible professional development, but we said let's bring students into this process together with them and build out a prototype with them and get their names published as well. So that became a really fascinating part of the process, too, because a lot of times professional development, you think you're just doing it for your own. But we thought of bringing students alongside that journey of creating and designing.

Dennis Kappen: Yeah, one of our students I think, Hilary Leehane, did her final year industrial design thesis, was looking at an ambulance in the remote areas and she had experienced interacting with paramedics and talking to them about requirements in situations and somehow this entire synergetic experience landing on, hey let's do this.

G. Paraventes: The one thing that we wanted to communicate to students that even though we're the faculty, like we have all these life experiences and industry experience, if you feel you have that great idea feel free to bring it forward. We want to make them feel that we don't have all the answers. We want all of them feel like they can come up with some of these answers to these questions too. And make them feel as... almost making it as we're colleagues working on this.

Nathan Whitlock: Right.

G. Paraventes: And you really want to break that down so they don't feel intimidated.

Nathan Whitlock: I was wondering about that process, you mentioned students and you had three students working with you. What were their names?

Dennis Kappen: One was... Hilary Leehane, was from industrial design. We had Dhanu...

G. Paraventes: Dhanu from user experience, and Chloe Chung was from multimedia design development.

Nathan Whitlock: And the way you worked that process, you mentioned like you almost became colleagues within that project. So it wasn't a matter of you two doing the heavy lifting, and then kind of getting them to do basic tasks?

G. Paraventes: No, It was interdisciplinary, each one of us has our own skill set, so we each pitched in at different parts of the project to really make it gel together.

Nathan Whitlock: And you did this all the way through the summer? And the students were... did you meet in real time?

Dennis Kappen: Yeah, it was surprising that the students reached out to us to be part of the project in the beginning itself, so it was very easy to form this team and I think

this was a good example of participatory design. Where we look at different stakeholders coming together with different skill sets. And then now we as instructors or faculty members, we're not trying to impose, we're trying to participate in the process of design and they are now becoming credible stakeholders now for this entire process. And that made the ownership of the design, ownership of the actual process, and also ownership of the final end result also much more rewarding for the students and for us as a... what do you call? Success by association, you know?

Nathan Whitlock: Right.

G. Paraventes: And it's also you want to create a trust factor between the group. When you have a small group like five individuals, you really want to make everyone feel like you can mess up and it doesn't mean anything. You just learn from it and move forward. So there was always that kind of culture we're trying to create with the students, it's like hey, we might create something this iteration sucks, but let's figure out how we can move forward from it, so don't feel you have to come up with an ace every time, right? Even if something's like so minuscule and a detail that's not that big of a deal, bring it forward, pitch it.

Nathan Whitlock: And throughout that process, you had iterations that sucked and then they sucked a little less, and then you had this great prototype.

Dennis Kappen: Well, it was quite interesting because when we finalized the entire concept as a design group, we decided that okay, let's look at creating the entire dashboard for an emergency vehicle where we have two players in that scenario. We've got the paramedic who's driving and the paramedic who's in the passenger seat. So we decided that okay, as a group let's work on two augmented reality heads-up display units. One is for the passenger, the paramedic who's sitting in the passenger side, and the second is going to be for the driver's side. So the idea was, it was essentially an idea where you could do some sort of like a pre-triaging for the paramedic, to help them understand this is what is happening at the accident site and this is how you are going to be now a participant in that accident site at this present moment in time.

Dennis Kappen: And when you get there, it's helping you to understand that okay, now I've prepped for this situation, right? We all have the skill sets to create a video prototype of how this concept would work and let's pitch that as an idea and see if our peers at the conference would select it or not.

Nathan Whitlock: And ultimately, this is no spoiler, but you did go to the conference-

G. Paraventes: Yes, we did.

Nathan Whitlock: ...a couple of months ago. How was that? What was that like?

G. Paraventes: It was surreal because actually almost... in 2009? 2010? As a student, as a grad school student, I was interested in going to this conference and I said one day I'm gonna go to this conference.

Nathan Whitlock: Wow.

G. Paraventes: I said, think big, start small.

Nathan Whitlock: Yeah.

G. Paraventes: Fast forward almost ten years later, I knew this was an opportunity with the right people to really attend this conference, and it's the type of project where you can't do it on your own. It's interdisciplinary. The type of problem you're trying to solve really brings different skill sets together of interaction design, interface, industrial design, all that needs to come together to solve this problem.

Dennis Kappen: And our feedback that we got from the conference was quite valuable in the sense that we have all these amazing superheroes in the Automotive UI industry and all huddling around our prototype, so we were experiencing the fact that as faculty members, we were having a few students with us, but as a design team we were able to deliver what we promised for the demo.

Nathan Whitlock: I'm curious what you've taken from that experience of going through the whole process, from initial to conference, what are you going to be bringing back to the class? What are you bringing back to the programs that you both work in?

G. Paraventes: I think showing a proof of concept that if as a student you come to me with an idea or an aspiration, what that can turn into as in terms of a project or professional life experience to add to their school experience.

Dennis Kappen: But this is an example that collaborative research can work. There are individuals available who can come together with a common objective or a goal and that I believe is a big take-away at Humber is that Humber has got the environment and we have amazing people here. And it's a matter of putting the right people together so that we can create some of these amazing artifacts of this learning experiences for students because this becomes now a story. This becomes now an experience for us and for the students who now are working professionals outside, right?

G. Paraventes: Yeah.

Nathan Whitlock: Well, that's excellent, and thank you so much for coming on here and telling us about it.

G. Paraventes: Yeah, this was awesome.

Dennis Kappen: Thank you for having us.

Nathan Whitlock: NEXTcast is produced by Humber Press and the creative productions team at the Center for Teaching and Learning. Special thanks to Santino Pannozzo and Kristin Valois. To suggest stories for future episodes of NEXTcast or to just let us know what you think, email HumberPress@Humber.ca. That's HumberPress@Humber.ca. Thanks and see you next time. That's still not a rhyme.