Luc Courchesne: Pioneering Immersion Worldwide

Canadian artist Luc Courchesne was an early convert to media arts some 50 years ago. He began utilizing computer technologies in 1984 to create interactive video and later with his immersive and interactive installations, "panoscopic" images, and devices of his own, he helped transform spectators into visitors, actors and inhabitants of his experiential crafts.

He was professor of design at Université de Montréal (1989-2013) and a founding member of the Society for Art and Technology. He has since created some 50 installations and image series. His work is part of many major collections and has been exhibited in major galleries worldwide and has earned numerous prestigious awards for his visual art. He is currently working on the creation of social virtual worlds.

Luc: So, what are the two questions?

Charlie: The two questions are: what are you currently doing in your practice? And the other question is just what was your first inspiration and how did it come out in life. Cause this book is filled with timelines. It has one timeline for each person I interview. And then KaChun has written a history of immersive experience from pre-history to the computer. And so we have then this long timeline before we all got here. We're sitting in La SAT in Montreal. Luke, would you please introduce yourself?

Luc: Yeah, my name is Luc Courchesne. I am 67 years old for now. I'll turn 68 soon. Looking forward to it actually. I was one of the co-founders of SAT, which was created close to 25 years ago. So I've been following this beautiful organization, how it evolved, how it brought together beautiful people, including you, Charlie.

So, my practice has been over the last 45, 50 years around art, visual art. Mostly I'm a visual person, although understand the importance of sound. But, as a visual artist, I was really captured by the idea of immersion, you know, being immersed. So I was more an installation artist. First as an exhibition designer, and when I grew up as an artist, when I gained the freedom to be an artist, I started to work with installations at the time when the computer was starting to be part of the artist toolbox.

You know, in the late seventies, early eighties, especially for me, with the laser disc, the laser disc captured my attention as the ultimate multimedia, medium because you could have images, sounds, videos in there, and each of these elements could be accessed in real time. So, for me, it opened a whole set of possibilities, which I wanted to explore.

But because the computer was basically a typewriter and a TV as an artist interested in space, I wanted to do installations where I would hide this to make the experience sort of more comprehensive or more about the subject or the artistic intention rather than the technology.

And that was difficult to do probably, as you remember, in the early days of computers, the computer was the interesting thing. So if you were trying to make art with it, it was quite a challenge. So I come from there, you know, an interest in immersion, using installations to explore the relationship between our bodies and nature.

But through installation, through the media of photography, video. And these things. And, eventually, you grow with the technology to the point, like everybody now, where we say, okay, technology is not the idea, it's just the tool. So we have, you still have to have good artistic, intentions.

Charlie: That's very beautiful. I think that what you've built here at SAT is quite remarkable in that it makes it possible for so many people to operate in research and in production and as

audience. As the community educates funders, it educates the intellectual community, all of that is, I think, an interesting immersion because it means you are embedded now in the society where you started out just making experiences. Could you talk a little bit about that? It's an extra question, but I'm fascinated.

Luc: Yeah. In fact, SAT is really Monique's idea. Monique Savoie's idea. I was just, you know, not too far from her to be able to benefit from its existence. But what Monique had in mind when she created the SAT was that, as opposed to the traditional artist center that we had in Montreal or in Canada, we were basically a pool of artists, you know, artists pooling together to acquire equipment like sound production or video equipment.

And Monique and I met when we were on the board of PRIM Video, which was a video production artist-run center. And it was clear when she created the SAT that in the mid-90s all the production equipment had become fairly easy to acquire, and the artists owned their own production equipment.

So, the reason to gather as artists was not about equipment anymore. It was about ideas and sharing your network, your knowledge of a very fast changing creative environment. Computers change every six months. Operating systems evolve. The things you did six months ago or a year ago were hard to play again on the newer machines and this and that.

So we needed a support group. So it was not so much about technology or equipment, but as about ideas, and that's what she's been able to do. SAT has been able to grow through generations of technologies because it's about ideas. It's about how he can repurpose technology, in a context where you're not trying to sell a product or you're not trying to convince anybody.

You're just trying to understand who we are as a species in this sort of environment we live in. That's very critical and important these days.

Charlie: I'd say you've succeeded. Going to my first question, I was wondering where your first inspiration came from in terms of understanding, excitement about the immersivity?

Luc: Well, the thing that is very vivid for me is my visit to the Pavilion of the Telephone at Expo 67, which was an animated panorama. I was 14 years old at the time, and it was very difficult to get into this pavilion because it was one of the most popular pavilions of Expo 67. So one day I said, this is the day where I'm gonna go to see the show.

So I got up really early, was waiting in line when the gates opened, and then I ran to be in line for this and I could see it finally. And I was really mesmerized by it. For me at 14 years old, I did not understand the complexity of such a project. So I just thought, you know, this would be the kind of things that would be very familiar in my lifetime. At 14, I did not know at the time that I was going to be an artist or a designer. I just knew that this would be something that I would experience in my lifetime, and it turned out it was not so common actually. I did not understand that, at the time, that it was very difficult, very expensive to produce.

But in my lifetime I have seen there are levels of computers. The fact that computers became multimedia. The computer got more powerful, faster, better graphic cards. Suddenly you saw Quicktime VR. Quicktime VR was this group of photographic panoramas that appeared and gradually the panorama or this idea of capturing the space around you.

Not just like a field, but the whole space became more doable and eventually we ended up with full-dome technologies where the dome of the planetarium became basically the computer screens and in the meantime the capture equipment became immersive.

I remember there was a company called Be Here. I guess it was around '97, '98 that was starting to appear on the web and they could, with high-definition still cameras, they could

capture a whole environment. So I was really facilitated by that. But there was no full-dome at the time, no VR. Well, there were some VRs but it was still pretty exclusive.

So, from there, technology developed and within 5, 6, 7 years, you had choices of recording equipment that allowed somebody to do immersive photography or video, and I was riding this wave and trying to make it affordable for artists, for me and then other artists like me. And so I basically tried to repurpose this equipment and created my Panoscope from 1998 to 2000.

These two years are when I developed this thing. I found a lens developed by a Columbia professor in New York. The license had been bought by a company called Remote Reality. And they were marketing this for real estate. They were big real estate owners. So they could shoot a space and put it on the web.

So I took their lens and adapted it to the very newly introduced high-definition video cameras. And so I could have an immersive video in the shape of a disc. And that was in '99. And so I designed the projection system with a very wide angle lens that I could take this image I got from the camera and project it straight into the dome and then get a single-channel immersive production system.

I was very proud of that actually. I prepared my device at SIGGRAPH New Orleans 2000. I was invited by ACM to go to their big show that next spring in San Jose, California. And I met with people there. And so they triggered my career as an immersive artist.

Charlie: It's a great story. I remember these things, seeing them in New York. You were becoming more and more visible over that time.

Luc: Yes.

Charlie: Particularly through the trade press.

Luc: Yeah.

Charlie: And through the art world too.

Luc: Actually, one of the things, we showed this project in *Wired*, the magazine *Wired* had something called The Wired Next Fest, and we were invited in Chicago for their edition in 2005, I think.

And there was a film crew there that was very interested in our installation and they didn't know who they were, who they worked for, but they came every day. They would come and they ask questions and they look and take pictures and everything. And then we didn't hear about them anymore.

And suddenly, I got a call in 2009. "Did you see the last *Star Trek* movie?" I said "No." They said, "It's your thing isn't it?"

So they had basically gotten their inspiration from the Panoscope, you know, this is like an inverted dome. And they used it as a prop in the 2009 *Star Trek* movie. That's where they train, their kids in these immersive devices. So that was interesting how you can inspire. You don't know every time what the output is of what you do, but you do inspire people and things.

Charlie: That's fantastic. There's one part of the more recent work that I'm particularly touched by, which is there's two communities that you've been reaching out in amongst others.

One is the dome-to-dome. Or connecting spaces. And the other is the reaching out into the medical and healing community. I wonder if you could speak a little about each.

Luc: Yeah, that's the SAT. SAT has this beautiful instrument, which is the dome and the whole, workflow to create content for the dome. And of course it was made for artists like me and others. We invite them in, we show them how it works. They go home, they work, they come back, and eventually when they're finished, we show this theater publicly. You know, every

night there was a performance in the dome, but at one point Monique said, okay, let's try to open up a little bit to the community beyond artists.

And she happened to meet the director of the hospital, the very progressive director of Children's Hospital. And they said, okay, let's put our people together. Your people, your artists with my medical staff and see what happens. So, a lot of artists from SAT spend time at the children's hospital. And they found opportunities where they could apply, expand their art, their skills to help young patients, their parents, the staff, the doctors, the nurses to see healthcare differently. And so it gave a number of projects. Some of which have been realized. But one of them, a very spectacular one, was therapy in schizophrenia, the doctor and artists, they had the idea to use the dome to try to design an environment that would help them go beyond their limitations. You know, if they were scared of huge spaces, they would create these spaces and see how, when, what is the trigger when it starts to be menacing or something, and the beautiful concept there was that it's not the artist who design the environments. It is the children themselves who design the environment that they thought would test their limits.

So it was a beautiful model of therapy that was developed in combination between artist patients and their doctors.

Charlie: That's a remarkable story. I would add a sidebar because, there's a similar story here in Canada about using porta-packs in the far north where people were trying to document the life of Inuit and other communities.

Playlist immerse! Podcast 17 Luc Courchesne

Canadian media artist & professor of design, Luc Courchesne, was an early pioneer of interactive video and later with his immersive and interactive installations, "panoscopic" images, and devices.

Interview by Charlie Morrow, Incidental sound samples recycled

Back Breath • b/art & CM
A Future Harvest
Water, Ocean (Waves Coming In)
Wave Music 1 for 40 cellos
Chorale bounce 1

[Mac Startup Chimes, Windows Error Messages & Startup Sounds, Dial Up Internet Sounds, Epson Dot Matrix Action Printer, Mail application, Sea Wave Meditation, Seagulls, IBM PC Sounds, Computer noises]

Mixed & collaged by bart plantenga, mastered by Sean McCann

And the way it was done was by giving them the equipment so that they weren't subjects, but they were authors themselves. And this seems to me that there's some very special spirit here in Canada about understanding the humanity of media.

Luc: There's another thing, you know, about Robert Forget. He was one of the sort of visionary at the National Film Board of Canada, and he was always the guy who basically saw new technology come in and he'd say, okay, how can we put this to use to give it like real meaning or real use.

So when these portable cameras and recording equipment came, he created a videograph, and I know about it because I was a student at Cégep du Vieux next door on the corner of St Denis and Maison Neuve. And for the videograph, they basically built a small shack there. They had the equipment and basically you could go there.

Anybody. And say, can I borrow a camera? Yes, sure. The condition was that what you shot with it was shared with the community, so you borrowed the camera, you did recording. I don't even think they asked you what you wanted to do with it. And then you edited something and you made it available in that library.

So, the library project grew, and it was for the NFB and Robert … And it goes back to your story about the north. If you give people equipment, then you will know how they look at the world. So that's one example of how the NFB in Canada has been working way beyond just documentation of Canadian culture, into explorations that made a big difference for people like me.

Charlie: Well, thank you very much. I appreciate very much the opportunity to chat with you about what you've been doing and I'll keep you posted as this thing develops.

Luc: But there's one thing I want to touch on …

Charlie: Please, you're quite welcome.

Luc: You told me you have a huge archive of video and audio files that you are trying to organize. And that's the thing I've been working on with my own archive where basically I've been cleaning my boxes, my crates, trying to sort all the projects, all the videos and the photos and the 3D objects and the sounds I had. And my idea was to create an archive in VR where you basically, because unfortunately I was an exhibition designer, so I, I take pleasure in organizing space with, with objects. So that you can like create your story by wandering through the physical space. But I was taking pleasure at doing this in the virtual space, which is endless. You know, it has no boundaries, it has no gravity. So, at first, the first use of the archive was to position objects, by hand, more or less, to create this path, the circulation.

And then we realized it was just too many things. And one of my colleagues said, let's program an algorithm that will position things automatically. And we tried that and it worked, and suddenly there was no limitation in the numbers of assets or objects you could have. And the algorithm can be pretty straightforward.

Like you can say: okay, I want everything to be this size and arranged 90 degrees. So you can create the illusion of a conventional exhibition space. But then we tried things that were not like that, that were more creative in a way. And it was very interesting to see how the algorithm outside of the human logic can create order. In a different way and how interesting that is. And the most interesting mold was random when we tell the computer do anything. And then you see these beautiful accidents of an image next to another one, things that could not have been planned, but that were beautiful in the sense that it created new sort of meeting with the same material.

So the work I'm engaged in right now is called ontology. So basically, an ontology is a model of – it's like we were talking about Borges, his infinite library. It's a little bit like that. You know, you have so many books, but how do you order them? It's like you have so many things in your archive, how do you order them?

So the ontology, the design of the ontology is like the generative concept where you say, okay, let's create this model of the world and then see what happens when you apply it to this body of work. And so that's what I'm working on, right? We're working on ontologies, sort of models of the world and then putting, you know, a database or assets in there and look at how it invites you in.

And that's the idea of immersion. You know, that's the beautiful mission. Inviting people in.

Charlie: Beautifully said. Well, thank you so much for that last bit. I'm sorry I didn't remember until you pointed it out.

Luc: That was your second question.

Charlie: That was my second question, so thank you.

Luc: Excellent.

Charlie: Well, I appreciate the interview and we'll continue.