

ASK THE ARTISTS: Daniel Hoelscher





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Daniel Hoelscher is an innovation expert and head of the recently established PRG Lab. We sat down with him and spoke about how he structures the innovative process, technological maturity and the importance of looking outside the box.

Ventuz:

You are an artist in more than one sense of the word – you are a musician.

Daniel:

That is true. I studied jazz guitar and worked as a professional musician and music teacher for about ten years, before I got into the event industry. 3D modeling and design were just hobbies for me back then, but over time it became more and more serious. Finally, I went to university a second time and got an engineering degree in Media Technology, and today my job is my hobby and my hobby is my job.

Ventuz: What inspired you to take this step?

Daniel:

I had been working as a freelance motion designer and compositor for a while alongside the music. It was exciting and profitable and very hands-on. I wrote my final thesis about an interactive projection mapping project for my band. That was actually my first experience with Ventuz.

Ventuz: How did that come to pass?

Daniel:

I was working at a company called XL Video, an event technology company. They had been using Ventuz for a while, but mainly through freelancers. One day, their Technical Director slapped the software on my table and said:





Take a look at this. I loved the openness of the software, the many integration capabilities. The concept for my thesis actually derived from looking at Ventuz.

Ventuz:

And did you continue to work with Ventuz after that?

Daniel:

I certainly did. One of the first large projects I created using Ventuz at XL Video was an interactive motion tracking for Opel at the Paris Motor Show 2014. It was a fashion show themed booth, and we projected images of the visitors onto the handbags the models were wearing on the catwalk. You can imagine the amount of work that went into that: e.g. animating the cutouts, tracking the geometry, managing the buffers. I don't even want to think about the hours we put into this. But it was a beautiful project and a door-opener for me, because it secured my role as an innovation specialist.

Ventuz:

A role you are still holding to this day.

Daniel:

Exactly. XL Video was acquired by PRG, one of the largest event technology companies in the world, and in the beginning of 2016 we established the PRG Lab, which I am very proud to manage. Our job is to develop new concepts and products, and also to put into reality the more complex inquiries our clients have.

Ventuz:

Tell us about some of the projects you do.

Daniel:

Well, we have only been around for half a year, but a few interesting projects have indeed taken place. For example: Together with Bellprat Associates, a Swiss studio for event design, we developed a product which was called "Selfie Jump". It was initiated by Opel for one of their exhibition booths. We installed 75 cameras in a semi-circle, that were triggered synchronously. People would step on the platform and jump, and while they were in the air, all 75 cameras took a picture. These were put together into a sequence and streamed onto the large video wall on the booth. Visitors loved it, it was one of the first actual products we created.





And recently we did the first 360° recording at the Montreux Jazz Festival. We are now one of the first production companies to offer a broadcast-ready virtual reality recording set including 3D audio. There have been more projects, mainly interactive installations and 3D stuff.

Ventuz:

That sounds like a lot, especially since you have only been around for six months with the PRG Lab. How do you manage to be so efficient while maintaining the innovative spirit?

Daniel:

That is a challenge. Of course daily business needs to be handled with precision, because we want to please our customers. But I do try to give my team enough time to play around, leave the office, go for a walk, try new technologies. We have a fixed weekly meeting where we toss around ideas, a very creative process.

Ventuz:

How is your team structured?

Daniel:

By now we are only six people. There is me, a motion designer, an audio engineer, a C#

programmer, a project manager and a sales manager. However, I do require everyone to have general knowledge about the entire scope of what we do. It allows people to think outside of their boxes. I have worked in other agencies before, and I never liked the strict separation of tasks. Why not let the programmer draw a storyboard, if they want to? I try to encourage my staff to do what they enjoy. It fuels their creativity and helps with communication. And it is good for the work ethic to allow everyone to accompany the entire project from beginning to end.

Ventuz:

I suppose that Ventuz is just one of many tools you use.

Daniel:

Yes, it is, but an important one. Especially during the development phase. When I have a visual idea in my head, I open Ventuz and it takes me only a few minutes to put this idea into 3D space. For me, Ventuz is like a musical instrument: I put in my creativity and get instant feedback. Other software tools are much stiffer in this regard. This feedback, which essentially is a result of the real-time nature, makes Ventuz perfect for playing around.





I am a fan of the software, it is so intuitive for me, and whenever I can, I will prefer Ventuz over other real-time engines.

Ventuz:

What other software products do you use alongside Ventuz?

Daniel:

I don't have to mention the Adobe Suite, that is a given. We use Cinema 4D for 3D modeling and Octane Render for visualization for our customers. Everything beyond that will be coded by ourselves. That is mostly hardware interfaces and media control software to integrate new sensor or display technology, or anything else that we want to implement in a setup. Ventuz is great for working with scripts and integrating other tools like unity for example.

Ventuz:

What interests you most when it comes to new hardware?

Daniel:

We are often interested in the less obvious things, like new types of micro-controllers or ICs.





Whenever something new comes out, we will try to get our hands on it and try it. But, naturally, we are also interested in new sensor technology, wearables or display technology. We are currently working on a seamless 4K player/looper using micro-controllers. Next up will be a VR player that allows VR streaming with our VR camera system.

Ventuz:

Virtual and Augmented Reality are a huge topic at the moment. What are your thoughts on the technology?

Daniel:

Augmented Reality certainly is a big thing right now. The Pokémon Go hype is a great example. The public has developed the technological maturity for VR and AR – or at least the younger generations. Once we see the less tech-savvy people wearing data glasses, then we will have reached the peak. I see additional sensors in the future for AR, such as tactile devices that give a physical feedback as well – maybe not in the form of body suits as we know from some SciFi movies, but probably via electrical impulses coming from the glasses.

Ventuz:

You just spoke about technological maturity. What do you mean by that?

Daniel:

A general understanding and acceptance of a technology in the public. The problem many people in our industry have, is that they quickly become saturated with new stuff. Much of the technology that we currently see sweeping the market has been around for many years, and those who work in the event tech industry and visit all the trade shows have already experienced these devices and technologies. They don't feel the excitement anymore. We need to look at everyone else outside the industry to understand the impact that certain technologies have. That is why I mentioned the less tech-savvy people before. Additionally, I also have a seventeen-year-old son; he is a great source for feedback. Kids and elderly people are a superb corrective for usability.







Ventuz:

Design is still an essential part of your job. What trends do you observe?

Daniel:

I'm personally very interested in generative design and algorithmic art. It caters to our idea of interactivity, as it allows users to participate in the design process. Art is no longer for passive consumption, but welcomes active participation. Users are interested in that, just look at the rise of games and VR. This desire to participate is a driving force in our society.

Ventuz:

Is this something that you try to use in the projects you are creating?

Daniel:

We work a lot with large international corporations, mainly from the automotive sector. Many of them have somewhat traditional ideas about the kind of installations they are looking for. Our job is to convince them that what we have in mind is perfect for their cause; again we are talking about technological maturity. Our customers need to put a lot of faith into us when we propose something that is new to them. Some agree, some don't, just like in any other industry. But I also believe that it helps to stick to your convictions, which we do by creating mock-ups and proofs-of-concept. This shows that we can deliver on our promises. I am sure that together with our clients we can put some amazing ideas into reality in the future, and I am looking forward to it.



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