



## LIEVEN VAN VELTHOVEN — THE RACING STAR

“IT AIN’T FUN IF IT AIN’T REAL TIME”

BY HANNA SCHRAFFENBERGER

WHEN I ENTER LIEVEN VAN VELTHOVEN’S ROOM, THE PEOPLE FROM THE EFTELING HAVE JUST LEFT. THEY ARE INTERESTED IN HIS ‘VIRTUAL GROWTH’ INSTALLATION. AND THEY ARE NOT THE ONLY ONES INTERESTED IN LIEVEN’S WORK. IN THE LAST YEAR, HE HAS WON THE JURY AWARD FOR BEST NEW MEDIA PRODUCTION 2011 OF THE INTERNATIONAL CINEKID YOUTH MEDIA FESTIVAL AS WELL AS THE DUTCH GAME AWARD 2011 FOR THE BEST STUDENT GAME. THE WINNING MIXED REALITY GAME ‘ROOM RACERS’ HAS BEEN SHOWN AT THE DISCOVERY FESTIVAL, MEDIAMATIC, THE STRP FESTIVAL AND THE ZKM IN KARLSRUHE. HIS VIRTUAL GROWTH INSTALLATION HAS EMBELLISHED THE STREETS OF AMSTERDAM AT NIGHT. NOW, HE IS GOING TO SHOW ROOM RACERS TO ME, IN HIS LIVING ROOM — WHERE IT ALL STARTED.

The room is packed with stuff and on first sight it seems rather chaotic, with a lot of random things laying on the floor. There are a few plants, which probably don’t get enough light, because Lieven likes the dark (that’s when his projections look best). It is only when he turns on the beamer, that I realize that his room is actually not chaotic at all. The shoe, magnifying glass, video games, tape and stapler which cover the floor are all part of the game.

*“You create your own race game tracks by placing real stuff on the floor”*

Lieven tells me. He hands me a controller and soon we are racing the little projected cars around the chocolate spread, marbles, a remote control and a flash light. Trying not to crash the car into a belt, I tell him what I remember about when I first met him a few years ago at a Media Technology course at Leiden University. Back then, he was programming a virtual bird, which would fly from one room to another, preferring the room in which it was quiet. Loud and sudden sounds would scare the bird away into another room. The course for which he developed it was called sound space interaction, and his installation was solely based on sound. I ask him whether the virtual bird was his first contact with Augmented Reality. Lieven laughs.

*“It’s interesting that you call it AR, as it only uses sound!”*

Indeed, most of Lieven’s work is based on interactive projections and plays with visual augmentations of our real environment. But like the bird, all of them are interactive and work in real-time. Looking back, the bird was not his first AR work.

*“My first encounter with AR was during our first Media Technology course — a visit to the Ars Electronica festival in 2007 — where I saw Pablo Valbuena’s Augmented Sculpture. It was amazing. I was asking myself, can I do something like this but interactive instead?”*

Armed with a bachelor in technical computer science from TU Delft and the new found possibility to bring in his own curiosity and ideas at the Media Technology Master program at Leiden University, he set out to build his own interactive projection based works.



## ROOM RACERS

Up to four players race their virtual cars around real objects which are lying on the floor. Players can drop in or out of the game at any time. Everything you can find can be placed on the floor to change the route.

*Room Racers* makes use of projection-based mixed reality. The structure of the floor is analysed in real-time using a modified camera and self-written software. Virtual cars are projected onto the real environment and interact with the detected objects that are lying on the floor.

The game has won the Jury Award for Best New Media Production 2011 of the international Cinekid Youth Media Festival, and the Dutch Game Award 2011 for Best Student Game. *Room Racers* has been shown at several international media festivals. You can play *Room Racers* at the 'Car Culture' exposition at the Lentos Kunstmuseum in Linz, Austria until 4th of July 2012.

Picture: LIEVEN VAN VELTHOVEN, ROOM RACERS AT ZKM | CENTER FOR ARTS AND MEDIA IN KARLSRUHE, GERMANY ON JUNE 19TH, 2011



***“The first time, I experimented with the combination of the real and the virtual myself was in a piece called shadow creatures which I made with Lisa Dalhuijsen during our first semester in 2007.”***

More interactive projections followed in the next semester and in 2008, the idea for *Room Racers* was born. A first prototype was built in a week: a projected car bumping into real world things. After that followed months and months of optimizations. Everything is done by Lieven himself, mostly at night in front of the computer.

***“My projects are never really finished, they are always work in progress, but if something works fine in my room, it’s time to take it out in the world.”***

After having friends over and playing with the cars until six o’clock in the morning, Lieven knows it’s time to steer the cars out of his room and show them to the outside world.

***“I wanted to present Room Racers but I didn’t know anyone, and no one knew me. There was no network I was part of.”***

Uninhibited by this, Lieven took the initiative and asked the Discovery Festival if they were interested in his work. Luckily, they were – and showed two of his interactive games at the Discovery Festival 2010. After the festival requests started coming and the cars kept rolling. When I ask him about this continuing success he is divided:

***“It’s fun, but it takes a lot of time – I have not been able to program as much as I used to.”***

His success does surprise him and he especially did not expect the attention it gets in an art context.

***“I knew it was fun. That became clear when I had friends over and we played with it all night. But I did not expect the awards. And I did not expect it to be relevant in the art scene. I do not think it’s art, it’s just a game. I don’t consider myself an artist. I am a developer and I like to do interactive projections. Room Racers is my least arty project, nevertheless it got a lot of response in the art context.”***

A piece which he actually considers more of an artwork is *Virtual Growth*: a mobile installation which projects autonomous growing structures onto any environment you place it in, be it buildings, people or nature.

***“For me AR has to take place in the real world. I don’t like screens. I want to get away from them. I have always been interested in other ways of interacting with computers, without mice, without screens. There is a lot of screen based AR, but for me AR is really about projecting into the real world. Put it in the real world, identify real world objects, do it in real-time, that’s my philosophy. It ain’t fun if it ain’t real-time. One day, I want to go through a city with a van and do projections on buildings, trees, people and whatever else I pass.”***

For now, he is bound to a bike but that does not stop him. *Virtual Growth* works fast and

stable, even on a bike. That has been witnessed in Amsterdam, where the audiovisual bicycle project ‘Volle Band’ put beamers on bikes and invented Lieven to augmented the city with his mobile installation. People who experienced *Virtual Growth* on his journeys around Amsterdam, at festivals and parties, are enthusiastic about his (‘smashing!’) entertainment-art. As the virtual structure grows, the audience members not only start to interact with the piece but also with each other.

***“They put themselves in front of the projector, have it projecting onto themselves and pass on the projection to other people by touching them. I don’t explain anything. I believe in simple ideas, not complicated concepts. The piece has to speak for itself. If people try it, immediately get it, enjoy it and tell other people about it, it works!”***

*Virtual Growth* works, that becomes clear from the many happy smiling faces the projection grows upon. And that’s also what counts for Lieven.

***“At first it was hard, I didn’t get paid for doing these projects. But when people see them and are enthusiastic, that makes me happy. If I see people enjoying my work, and playing with it, that’s what really counts.”***

I wonder where he gets the energy to work that much alongside being a student. He tells me, what drives him, is that he enjoys it. He likes to spend the evenings with the programming language C#. But the fact that he enjoys working on his ideas, does not only keep him motivated but also has caused him to postpone a few courses

at university. While talking, he smokes his cigarette and takes the ashtray from the floor. With the road no longer blocked by it, the cars take a different route now. Lieven might take a different route soon as well. I ask him, if he will still be working from his living room, realizing his own ideas, once he has graduated.

***“It’s actually funny. It all started to fill my portfolio in order to get a cool job. I wanted to have some things to show besides a diploma. That’s why I started realizing my ideas. It got out of control and soon I was realizing one idea after the other. And maybe, I’ll just continue doing it. But also, there are quite some companies and jobs I’d enjoy working for. First I have to graduate anyway.”***

If I have learned anything about Lieven and his work, I am sure his graduation project will be placed in the real world and work in in real-time. More than that, it will be fun. It ain’t Lieven, if it ain’t fun. ■

Name:	Lieven van Velthoven
Born:	1984
Study:	Media Technology MSc, Leiden University
Background:	Computer Science, TU Delft
Selected AR Works:	Room Racers, Virtual Growth
Watch:	<a href="http://www.youtube.com/user/lievenv">http://www.youtube.com/user/lievenv</a>

