

majestically across the sky or to play with the dancing daffodils. He does not look at the starry heavens; he is dead to the beauty of a rainbow in the sky. It is very important to be able to notice beauty and to be in harmony with the nature. Any part of the trees that can't be made into boards is turned into pulp or hog fuel.

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Студ. М.И. Гундарева, Д.А. Романцевич

Науч. рук.ст. преп. С.И. Шпановская

(кафедра межкультурных коммуникаций и технического перевода, БГТУ)

5 THINGS YOU NEED TO KNOW ABOUT VIRTUAL REALITY

For all the hoo-hah and fan fare around next-generation technologies like Oculus Rift and Google Cardboard, it is still early days for virtual reality. Sure, we have come a long way from clunky simulators (even ones with wind machines that blew back your hair), but the field is still pretty-much open for all comers.

VR at times is referred as immersive multimedia. Hence, can we say conversation over a telephone or attending a meeting over a videoconference are also examples of VR as we get immersed in conversations on phone or video? In our opinion these cannot be considered as VR as these are events that are actually happening like the other person is actually speaking on the other end of the phone while you hear and similarly, there are other people attending the videoconference at the same time as you see. We would like to conclude that not all forms of immersive multimedia could be classified as VR. Computer Simulated Reality is also at times substituted for VR. But is VR always computer simulated reality? We need to be really careful while substituting or interchanging VR with computer simulated reality. Most of the articles would agree on that VR would in general constitute of 3D animated images, which would change in response to any input by the user (movement could be as subtle as movement of head).

The key to VR? It's the sound. When you think of virtual reality, you probably picture it: a 360-degree environment full of immersive vistas. However, it's the sound that makes it real. Filmmaker Chris Milk first grasped this while watching *Hunger* in Los Angeles, an early VR film by Nonny de la Peña, which places the audience in the middle of a street scene. It grabbed him immediately, but not for the reasons he expected: "The visuals were not photorealistic; she'd recreated the scene with blocky CGI characters," he says. "But what really affected me the most was the

audio, because it was real. You could walk around the characters and the scene, and it was really affecting.”

Non-fiction is a good place to start. Although the idea of creating an epic virtual reality narrative film is alluring, Milk and his team are focused on nonfiction, from documentary stories to musical performances. “It’s a little bit easier because people understand their context within a scene,” he says. “With a narrative, if you’ve got two people in bed having a conversation, well, now you’re in the room with them. Your presence in the scene changes the scene somewhat. What do you represent? Are you an invisible observer or part of the story? We’re still not sure.”

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A live-action virtual reality shoot will require some ingenuity. One of Milk’s first experiments was for the musician Beck: a monumental performance, filmed in February 2013. “I got a 200 person orchestra playing every imaginable instrument. It was seated in the round. Beck was in the center; the audience was around him and the musicians were around the audience,” he says. “I shot it with both traditional Alexa movie cameras for a linear, rectangular cut, and with three 360 spherical cameras made of Go Pros mounted together with a 3D-printed piece of plastic.” Fair to say, it all looked a bit odd. But for a first-time experiment, it worked. “I heard person after person saying they felt so connected to the musicians,” says Milk. “It showed humanity in a way that they’d never seen before.”

The power of technology is not about technology: For years, Milk has created immersive experiences from emerging technologies; he clearly revels in pushing at the possible. Nevertheless, technology, in the end, is just another tool. “I think there’s a perception of technology that it’s cold and hard, it’s ones and zeros,” he says. “I’m not interested in that; I’m interested in how the ones and zeros dance around inside of your heart. What can you do with those ones and zeros that can make a person ball up and cry when they watch it? It’s got to be about something human, because that’s what humans care about.”

Why virtual reality is the next great medium: Right now it’s this bulky thing that goes over your head and projects pixels, but eventually we’ll get to a system that has no extra weight, you can’t feel it at all, and the resolution is so sharp that you can’t differentiate between it and reality.

“If I can put a chip in your head and sunglasses over your face and give you whatever experience you want, whether it’s to be on a tropical island swimming or with some beautiful woman who says you have to help her save Mars and there’s a spaceship waiting out on the street... That’s what this medium will eventually be. How long it takes to become that, of course, is quite another question.”