

**Caleb Eubanks TEDx Talk Palo Alto College Speaking Notes**  
**A Day in the Life of VR**

| <b>Caleb Script</b><br><br><b>***ALL VIDEOS PLAY WITHOUT SOUND WHILE I SPEAK***</b>   | <b>Stage manager cues</b> | <b>Slide number</b>           |
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| <p>When I was seven years old, I watched a movie that forever changed the way I saw the world.<br/>The very first, entirely computer-animated feature film</p>  |                           | <b>1 (TITLE)</b>              |
| <p>Toy Story! It had just come to theaters and my parents were cool enough to make sure I got to go and see it. As a young boy I LOVED watching movies and I knew right away that there was something special about this one. It somehow felt real even though I knew it was animated and “not” real. I remember instantly how obsessed I became with trying to find out how it was made.<br/>Soon after seeing the movie I saw a special program on tv that showed behind the scenes video of how the creators had used a virtual camera within the animation software to frame and record the scenes for the movie.</p>   |                           | <b>2 (TOY STORY PIC)</b>      |
| <p>Similar to what the interface of many software applications of today look like.<br/>I remember how I thought to myself how cool it would be if I could be the camera within the animation program. How I would be able to watch the movie from any perspective that I wanted and even stand next to my favorite characters.<br/>At the time this concept was difficult to express, but still, I was always thinking about the possibility from that day forward.<br/>In order to achieve presence and have these amazing experiences one would simply need a way to access these digital worlds, something like a doorway, a portal, or even a virtual reality headset would do the trick.</p> |                           | <b>3 (VIDEO Unity Camera)</b> |
| <p>As you can see the idea of being able to immerse yourself in media is nothing new!</p>   |                           | <b>4 (PIC Old Man)</b>        |
| <p>Fast forward to 2014 when I got the chance to preorder the Oculus DK2.</p>   |                           | <b>5 (PIC VR Headsets)</b>    |

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| <p>This was the first commercial developer headset that allowed you to move your body within 3D spaces. Something the original DK1 headset wasn't capable of.</p> <p>After waiting for several months I finally received my headset and was ready to join the already forming VR community. My doorway to the digital world was just about to be opened.</p> <p>I had always wanted to create my own worlds so I had begun training earlier that same year learning to use Unity, which is a Game Engine software.</p>  |  |  |
| <p>After finishing a few sample projects I began making my first game called 'MazerQuest'.</p> <p>The concept is that you have been abducted by a ufo and then dropped into a maze. Your job is to use your hands to solve simple puzzles that help guide you towards the exit. At the time there was very little information on how to develop for VR hardware so I spent a lot of time learning from others and trying to teach others what I had learned.</p> <p>While I was working on the game I would make videos of the development process and share them online in hopes to get some feedback and maybe just maybe get people wanting to play.</p> <p>What ended up happening was that other VR developers began asking me to make videos of their experiences in order to help build hype for their games.</p> <p>After agreeing to do this consistently I was considered a VR content creator by much of the community under the name 'RealityCheckVR'</p> <p>In my videos I would try to teach and inform as people would often ask me questions about hardware and software solutions in order to get the best out of their experiences.</p> |  | <p><b>6 (VIDEO<br/>MazerQuest<br/>Development)</b></p> |
| <p>Not long after this I started a 3D-Printing VR Accessory Business called 'ProVRGear'.</p> <p>I provided people with cable extensions and hardware mounts that I was making from home.</p> <p>Finally putting to good use my ever growing 3D-Printer Collection.</p>  |  | <p><b>7 (PIC<br/>ProVRGear)</b></p>                    |
| <p>I even created a powerful transducer chair for use when you want to experience more immersion when flying or driving in VR. That was a really fun project and one of my first!</p>   |  | <p><b>8 (PIC<br/>Transducer<br/>Chair)</b></p>         |
| <p>It didn't take long before I began making friends other VR content creators from around the world. Together we formed a little nonprofit VR news website and started a weekly podcast under the name VRSpies.</p> <p>Being a part of this group gave me a lot of insight into the community and helped build my interest even more. I had gained real world friends that I found in virtual places.</p> <p>Most of us have never met in real life yet we all feel like family as we</p>  |  | <p><b>9 (VIDEO<br/>VRSpies Intro)</b></p>              |

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| have so many memories of doing things together.  |  |  |
| Currently I work for ARVORE Immersive Studios based in Sao Paulo, Brazil which is an XR Development Company. Focusing on all the realities.<br>The company is split into three areas, R&D Lab, Arcade Brand, and Experience Development.   |  | <b>(Stays on 9)</b>                                |
| One of the studio's most recent projects is a narrative driven experience called "The Line"<br>Which is currently being featured and winning awards at film festivals around the world. Another award winning release 'Pixel Ripped' is a game that lets you go back to school and play your gameboy while distracting your teacher during class. If you love retro games you'll love that one.  |  | <b>10 (VIDEO ARVORE Apps)</b>                      |
| Often times I find myself working remotely and the easiest way to stay productive can sometimes be virtual meetings.<br>Even when I'm away from work, I sometimes want to meet with friends or family in order to simply show them something or even spend time with them.<br>Although there are many social apps that allow you to do this, one that I often use is called 'BigScreen'. Let me show you what I'm talking about.   |  | <b>(Stays on 10)</b>                               |
| <b>*PUT ON HEADSET*</b><br>-FIRST LOOK AT ENVIRONMENT and switch<br>Also mention avatar adjustability.<br>-Talk about the fact that you can view your PC here or show videos, even join other movie nights and big rooms with others, or host private sessions.<br>-Move to Selfie stick cam, talk about social aspect of taking photos or making gifs while in VR. -Grab markers and write HI!<br>-Say you have to get back to the stage but first you'll have some popcorn, grab and eat popcorn.<br><b>*TAKE OFF HEADSET*</b> | Need VR Headset and controllers handed to me, controllers first<br>-<br>Take away hardware | <b>11 (PIC BigscreenVR - switch to demo input)</b> |
| Imagine if you could watch your favorite shows in your own personal IMAX theater with friends and family living in different places!<br>-<br>In my eyes VR has already become a practical method to train, entertain, and enhance your life. It allows us to access and perceive information in ways that could not be otherwise possible.   |  | <b>12 (PIC BLACK)</b>                              |
| The headsets are getting lighter, easier to set up, are cheaper and more mobile than ever before. Some headsets even allow you to go out into the open and experience world scale VR.<br>Just think of the possibilities.  |  | <b>13 (VIDEO Beach VR)</b>                         |

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| <p>Companies like Facebook’s Oculus, HTC Vive, Valve, Samsung, and others have been working hard for years to bring down the costs and make VR more accessible for everyone.</p>  |  |                                       |
| <p>Less than a year ago I was in San Jose, California at Oculus Connect where I was able to run around an arena sized area while seeing an entirely alternate reality. Each person could see the other players in their actual physical space, yet they had avatars and spaces around them that were completely virtual. There are many types of experiences that are being developed right now just like this, as the technology is finally being released. Personally, I find this to be some of the most exciting stuff because it means that we can have shared experiences in physical spaces without all the bulky hardware. Even now there are several establishments like “the Void” that allow similar interactions.</p>   |  | <p><b>14 (VIDEO Oculus Arena)</b></p> |
| <p>Just a few months after I experienced arena VR for the first time I was in Tokyo, Japan, checking out some of the VR arcades. The city was full of them!</p> <p>During one arcade visit there was a girl who had never played VR before trying her best to fend off a bunch of zombies. Although she was clearly in terror, she managed to survive to the end and win the game while her friends congratulated her. No doubt she felt pretty cool when it was over.</p> <p>-</p> <p>You can immerse yourself even further by adding things like props to hold, transducer vests and floors that allow you to feel physical movement. You can even add smells, wind or even rain effects.</p>   |  | <p><b>15 (VIDEO Tokyo Arcade)</b></p> |
| <p>We have one such experience called “Beleaf” which is currently at Voyager Arcades in Brazil. You start off near a campfire holding a simple wooden stick that acts as a torch. You walk around an ever changing environment while the torch lights your way. The experience uses redirected walking so that the user in the headset never feels restricted with space and feels like they are exploring a much larger area. While you circle around the tunnels you lose all sense of the physical world around you and you can’t help but believe what your eyes are telling you. Near the end of the experience you find yourself walking up to a bridge that often makes people stop dead in their tracks. Using just a simple wooden board on the ground is enough to completely trick the user into thinking they are actually walking on a bridge high up in the air. As you move across the board there is a large fan that blows wind onto the user before the experience comes to an end. Applications like these are often only found in VR Arcades and are a great way to showcase how immersive this technology can be.</p> <p>-</p> <p>There are many popular VR applications that I unfortunately I do not</p> |  | <p><b>16 (VIDEO BELEAF)</b></p>       |

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| <p>have time to go over, still I'd be letting you down if I didn't mention one app in particular that has taken over the community and VR arcades alike!</p>  |  |   |
| <p>I'm talking about Beat Saber.<br/> This is a fantastic high-energy music rhythm game that is fun for all ages.<br/> In this mixed reality video you are able to see exactly what I see when I'm playing in VR.<br/> The point of the game is to feel like a complete badass while you hit the blocks in the direction that they point with the corresponding colored sabers.<br/> It's a very simple concept that leads to hours of sweaty fun.<br/> The best part about working out in VR with applications like this is that you don't realize that you are working out. You are completely involved in the activity which can keep you more motivated and content during exercise. Applications like these are highly replayable and often have leaderboards which allow you to see how you stack up against your friends.<br/> -<br/> There are so many people that are SO MUCH better than I am at this game.</p> |  | <p><b>17 (VIDEO<br/> Beat Saber<br/> Mixed Reality)</b></p> |
| <p>There are a large variety of applications that can be used to help you exercise and even more that can be considered competitive games. This opens us up to the world of VR E-sports!<br/> VR E-sports are extremely appealing to kids and adults alike because they combine new technology with physical activities that are real to your brain. It is VERY engaging to play a VR Esport! This is coming from someone who grew up running track, playing soccer, baseball, and football throughout highschool.<br/> Digital worlds put everyone on the same playing field and allow us to experience events without having to leave our homes.<br/> My own experiences have led me to competing in VR sport competitions, Dance competitions, and other mini VR tournaments.</p>  |  | <p><b>(no change)</b></p>                                   |
| <p>Earlier this year I was fortunate enough to win the North American Preliminary for the World Cyber Games and make my way as one of only two Americans to go to Xi'an China to compete in the World's first VR Championship. This was basically like the Olympics of E-Sports with competitors coming from all around the world competing in a variety of different games and platforms. Everyone was wearing cool uniforms, we all had strict schedules to keep, and the crowds getting bigger each day!<br/> I was pretty nervous before going out and playing on stage, but luckily you only see the crowd when you first walk out. The rest of the time you are in your headset and you forget about everything but what you</p>  |  | <p><b>18 (VIDEO<br/> WCG Tourny)</b></p>                    |

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| <p>see in front of you.</p> <p>We played Final Assault which is fast paced real-time strategy game. You have to come in with a strategy and be quick to react to your opponent. Using your hands to control your troops and airplanes, there is a lot to keep track of. Even though this game is more mental than physical, it still works perfectly in VR.</p> <p>Luckily, I was able to win a few games, but eventually got knocked out of the brackets.</p> <p>After my matches were over, some of the event organisers saw that I had some free-time and asked if I'd like to help Voice Cast the Final Championship.</p> |                                     |                                |
|   | <b>Show for 2 sec while pausing</b> | <b>19 (PIC WCG Cast 1)</b>     |
| <p>So now I can say I've been a Professional VR Esports Athlete as well as a Professional E-Sports Caster which is a pretty cool thing for me. Having watched similar events in the past from my PC at home, I was honored to actually participate in something as prestigious as this.</p>   |                                     | <b>20 (PIC WCG Cast 2)</b>     |
|   | <b>Show for 2 sec while pausing</b> | <b>21 (PIC WCG VR Players)</b> |
| <p><b>Transition:</b></p> <p>During my daily life I often use VR to stay in shape, and to stay connected with my friends. I also really enjoy using art and music applications as they can be very rewarding ways to spend time in VR. There are so many things that you simply have to see for yourself.</p>   |                                     | <i>(keep on 21)</i>            |
| <p>The mental and physical health benefits of VR cannot be underestimated.</p> <p>You can use this technology in so many MORE ways than just gaming, which is typically what people think about when they hear the term "VR"</p>  |                                     | <b>22 (PIC Word Cloud)</b>     |
| <p>As for myself, I grew up in Lincoln, NE and my first job was picking tassels in the corn fields. I never expected to travel much or have the opportunities to experience the things that I have today. Since I bought a VR headset and joined the ever growing VR community I have had the world open up in front of me.</p>   |                                     | <b>23 (PIC Corn Field)</b>     |
| <p>I'm excited to share with you that VR is here for good, and without a doubt will become commonplace as the hardware better fits our lifestyles.</p>  |                                     | <b>24 (PIC VR Montage)</b>     |

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| <p>I want to be clear that I do NOT think that VR is a replacement for the physical world, nor is it meant to be. It allows us a deeper look into the human experience and gives more people access to things that would otherwise be unattainable.</p> <p>-</p> <p>I dare you to find ways to use these new immersive technologies<br/><b>to enhance your life,</b><br/><b>connect you with people around the world,</b><br/><b>and to help you to better become the person that you'd like to be.</b></p> |  |                   |
| Thank You   |  | <b>25 (TITLE)</b> |