Envisioning Technology in Video Games

Part 1

One of my favorite technological hobbies is playing video games. Video games are interactive electronic games that people play for entertainment. They require a console or computer to play, and are contained on discs, cartridges, or downloads. Players control what’s happening on-screen by pressing buttons on special controllers or keyboards, typically to progress the game’s story or complete an objective. Hand-eye coordination is important, as the visuals and events in the game correspond directly to the buttons the player is pressing. Video games have existed since the 50’s, and are popular across the globe.

I was personally drawn to this hobby through my father, as I used to watch him play games on his Nintendo 64 all the time. I rarely got a chance to play, but I was completely sucked in every time I did. Since then, I’ve kept up with new game and console releases consistently, and played games from almost every genre. My favorite thing about video games is their ability to simultaneously tell a story, create an interactive skill-based experience, and display unique visuals.
Video games are an ever-changing medium. Mechanical and graphical improvements are made every year, allowing for increasingly deep immersion. While these improvements are certainly impressive, the most ambitious step forward in video games is virtual reality (VR). VR games are controlled by wearing a headset and moving one’s head/hands around. This promises to be the most immersive type of game, as playing a VR game creates the ultimate simulation of being inside a videogame. VR may be in its early stages now, but the promise of being inside another world is enough to warrant great excitement for its future.

An article titled “11 video game trends that will change the future of the industry” by Jordan Webber and Kat Brewster touches on the subject of VR. The article notes that “virtual reality and its experimental tech contemporaries are exploring new ways to incorporate the body as more than just an anchor to the physical world” (Webber and Brewster, 2016). These new forms of connection include programmable gels players put on their bodies to connect and play with others at a distance. A different article titled “DNA match dating, AI orgasm gels & virtual group sex” by Kitty Knowles elaborates further on this technology. VR innovator Ghislaine Boddington explains that “when you put gel on your erogenous zones, and your partner does too… because of tiny AI robots, you’d be connected to each other” (Knowles 2016). While the creator of these gels intended their use for sexual purposes, they have the potential to turn a player’s entire body into a controller. This would create a never-before-seen sense of total immersion, as the player’s body would essentially be in the game.
This technology is still in the early stages of development, so it hasn’t changed the video game industry thus far. However, the potential for innovation is astounding. Putting one’s body into a game has been an intriguing science fiction concept for years, and programmable gel could make it a reality. It would also allow for players across the globe to connect with each other in a new way, seeing each other’s features vividly. These levels of immersion could introduce a new era of gaming.

Virtual reality has great potential to alter the way video games are played. It creates immersion that has never been seen before in games. Gaming is a unique, interactive experience that is ever-changing, and has been a part of my life since a young age. I look forward to seeing what the future holds for video game technology.

Part 2

Virtual/augmented reality is a developing field that holds great promise for the future of video games. It hasn’t reached its full potential yet, but plenty of TV shows, books, and movies showcase ideas of what the future of VR might look like. One example is season 3 episode 2 of Black Mirror, “Playtest”. In this episode, a chip that connects to player’s brains to create an augmented reality game is the focal point. The episode explores the danger of connecting technology to one’s brain, and the idea of virtual reality becoming too realistic.
Black Mirror is an anthology series that features the effects of technology on humanity. Every episode features different characters in different settings, so nothing is consistent throughout the series.

In this episode, an American named Cooper sets off on a vacation in hopes to get away from a strained situation with his family. His father developed Alzheimer’s and died, and his relationship with his mother has suffered as a result. While in Britain, he meets a woman named Sonja who he starts a relationship with. After spending the night with her, he realizes his credit card information was stolen, and all his money is gone. To remedy this, he takes up a one-time job at a video game playtesting facility to garner enough funds for a plane ticket home. The game he playtests is an augmented reality game, meaning the game superimposes computer-generated images over the real world. It utilizes revolutionary technology that taps into his brain through an implanted chip. This chip finds his deepest fear and creates the most personal horror experience possible. He spends the night in a house where holographic images and artificial sounds jump out at him, consisting of standard fears such as spiders and childhood bullies. However, the game eventually develops into intense psychological horror as it assaults his most deeply personal fears: developing Alzheimer’s and losing touch with his mother. It quickly becomes too intense, and the connection between reality and game becomes blurred. Cooper is pulled out of the game and seemingly returns to reality, but this is another of the game’s tricks. It’s revealed that he only played the game for .04 seconds, after which he died of shock.
The most prominently featured piece of technology in the episode was the augmented reality game. The game is played by surgically inserting a chip into one’s head and undergoing a calibration process. After that, holographic moving images that make sound manifest themselves around the player, but are only visible and audible to the person playing the game. This technology is not currently available in real life, but games that players can control with their minds are in development. An article titled “The race to control video games using your mind” by Nathan Ingraham focuses on mind-based video games. The games mentioned in the article weren’t fully fleshed-out games, but they did connect to players’ minds. One game called ‘Throw Trucks with Your Mind’ had players wear an “EEG reading sensor and when they slowed their thoughts and blocked out distractions, their video game avatar was able to start picking up and throwing objects at their opponents” (Ingraham 2015). Having technology that can pick up on brain signals and directly correspond to a game shows that developers are making steps toward brain-controlled video games, and they could be a reality soon enough.

In Black Mirror, the technology isn’t being utilized to solve any problems; it’s merely a form of entertainment. It does create problems, however, as interference from cell phones causes the game to become intense enough to kill players. In real life, brain-based games are being used to “increase cognitive factors in older adults” (Ingraham 2015). Playing the game Neuroracer for “12 hours… over a month significantly increased the cognitive function of a test group of 60-85-year-old compared to a control group” (Ingraham 2015). These games could be used to help people with poor cognitive functions, making it a useful innovation for society. The game in Black Mirror has a clearly negative
impact on the lives of characters in the show, but a different game in real life could positively impact players’ cognitive growth. Using brain-focused technology to traumatize players is unethical, but if used in the right way, it could be life-changing. With enough development in 5-10 years, brain-controlled video games could be extremely useful and immersive.

Black Mirror paints a dark picture of brain-controlled augmented reality games, but they have the potential to be very helpful. Real-world developers are bringing these games closer to reality than ever before, and this promises an immersive and useful gaming experience. With enough development in the coming years, the face of gaming could be changed entirely.
Works Cited


