**Bringing VR and Spatial 3D Interaction to the Masses through Video Games**

Kareith Dyce

Videos games first became popular in the 70's because of the arcade. Since there was no other way to play these captivating games people had to come out of their homes to play them. However, in the 80's consoles began to catch up with the graphics becoming comparable to the ones in the arcades. In the 90's they finally caught up in popularity meaning it was no longer necessary to constantly must pay quarters to keep playing or to travel just to play the games.

Arcades needed some way to compete with home consoles and did so by innovating the user interface. Instead of having basic controllers they innovative controls such as having guns, dance mats and even motorcycles to further immerse players. Since having these controllers was not cost efficient for home consoles, arcades were able thrive for a while longer. VR was first introduced at this time in the 90's and since it was way more advanced that current home consoles it gave arcades a huge leg up on the home consoles. However, since home consoles continued to improve arcades continued to go on the decline to the to point that they were no longer standalone and are generally added on to other entertainment places like bowling alleys, movie theaters, laser tag arenas, etc.

However, this change in traditional controllers did not go unnoticed by the home consoles and started to change up their controllers adding more buttons and features to make the games more complex. The Wii was a successful example of this it included motion controls. It allowed for gamers to interact with games in a new way such as swinging the controller to imitate a tennis or golf swing, punching to imitate a punch, or turning the controller to imitate a steering wheel. However, since the console was still new at the time most games did not fully utilize these motion controls and only had them as an afterthought.

However, the technology is not currently at the point where these interactive controllers can really be used to their fullest. The Wii mote currently has its issues that Nintendo is working on improving with the Wii motion plus however to building a much more improved version without vastly increasing the price will be difficult. The Wii mote however is paving the process forward to bringing more motion controlled games to the consumers and as technology improves the ability to create these games that fully utilize motion controls will increase.

<https://ieeexplore.ieee.org/abstract/document/4607310>