

Assistive Technology in Video Gaming

Whether being watched or physically played, gaming is one of the biggest and most popular hobbies in the world. Since the release of the first game console in 1972, the video gaming industry soared from a small niche market to mainstream with the interest in new technology rapidly growing. The Magnavox Odyssey pioneered the industry and led us to the incredible technology we have today.

As the Magnavox Odyssey gained popularity and interest, a small-yet-devoted community began to emerge, and people with disabilities saw the immediate value of what the video gaming community could offer them. Game developers and companies began to focus on accessibility in their software.

Assistive technology allows children and adults with disabilities to play video games despite their limitations. Adaptive equipment provides the opportunity for people with disabilities to participate in situations that may be difficult in the real world, thereby providing social interactions that can help maintain mental health as well as providing an equalization between disabled and non-disabled players. Whether for entertainment or rehabilitation purposes, adaptive video games allow participation in one of the world's largest pastimes. Christopher & Dana Reeve Foundation Paralysis Resource Centre @ Paralysis.org

Overcoming Barriers in Gaming

People with disabilities are at a heightened risk of social isolation. However, video games can be the perfect gateway to community participation, lifelong friendships, and unforgettable shared experiences. This is why it's crucial to ensure these experiences are developed with accessibility as a priority and inclusion as the goal.

On the 4th of September 2018, Xbox released its official adaptive controller to help make user input for video games more accessible and open up a new world of socialisation and entertainment for people with disabilities. In 2015, a team of engineers at Microsoft's Xbox and gaming division, began working on a prototype controller to help improve accessibility for video game input.

In 2017, Microsoft decided to turn the prototype into a product and began collaborating with accessory manufacturers and non-profit groups in the gaming accessibility field. According to Phil Spencer (Executive Vice President of Gaming at Microsoft), the Adaptive Controller is not hardware-locked to Xbox and was developed with the intention to be used with any gaming platform, with Microsoft opening dialogue with Valve, Nintendo, and Sony towards this effort. Unfortunately, Sony did not carry this over to the PS5.

To play games using the adaptive controller, you can plug switches and joysticks in to replicate the buttons found on a standard controller but on a larger, more accessible scale. The switches can also be programmed which allows it to be adapted to combat a large variety of potential barriers.

Accessibility in Games

Accessibility options within the games themselves are just as important as assistive technology. In recent years, game developers have begun to take accessibility into account more and added more options within their games. Whilst no game is perfect, especially in terms of accessibility for gamers without sight, *The Last of Us 2* is a prime example of what can be achieved with accessibility in games.

Throughout the many years of video gaming, people have come together to create guidelines on how video game developers can make the experience of playing games more inclusive and available to a wider audience. These guidelines are extremely important as they outline a straightforward reference for developers to keep in mind and follow to avoid unnecessarily excluding players. All players have different levels of ability and different preferences – there's no 'typical gamer'. It is important to accommodate the needs of players no matter what difficulties they may face.

Games are entertainment, culture, socialising, things that mean the difference between existing and living. For profound impairments this goes even further, with games meaning therapy, pain relief, escapism, and independence.

Can I Play That?

Can I Play That? is a video game journalism website that was founded in 2018. CIPT

provides reviews, features, and news coverage on accessibility in games and provides guidelines for developers and studios. They also advocate for diversity and inclusion in games as well as educating about accessibility. The first game to receive a perfect score for accessibility from Can I Play That? was *Gears 5*.