

The Xbox Adaptive Controller is a board with two large buttons and about a dozen customizable outlets. Users can connect their own inputs, such as fingertip switches, to the central console. There are many possible inputs: fingertip switches, switches that can be controlled with the mouth or chin, and foot pedals.

Gamers can choose what inputs to use based on their particular needs and disability, so the Adaptive Controller is completely customizable.

The Washington D.C. VA Medical Center said it will host weekly outpatient clinics. At the clinics, veterans can play video games together using the adaptive controllers. During the sessions, the VA will collect data on pain management and socialization to monitor the effectiveness of gaming as a form of therapy.

A Particular Market

Matthew Wade served in the Navy and became quadriplegic after falling 40 feet from a broken flagpole. For him, gaming has two major benefits. It provides a distraction from his physical pain and engages him socially.

"I primarily use it as a distraction from chronic pain. I have neuropathic pain in the lower part of my body and it feels like my limbs are on fire," said Wade, 31. "The more that I'm totally distracted or immersed in a game, the more that pain tends to go away."

Wade said he mainly likes to play role-playing action games and first-person shooters with his two older brothers. His brothers encouraged him to get back into gaming to help his mood after his fall.

There is a business aspect as well. With its controller, Microsoft has tapped into a particular market. According to research by the Accessibility Foundation, 92 percent of individuals with a motor, visual, auditory or brain processing disability say they play video games regularly. According to Colleen Virzi, a recreational therapist at the VA in Washington, gaming is "huge" in military culture.

"Things like the adaptive controller are specialized," said Nadella. "But inclusive design is much broader than that."

The VA announced that esports (electronic sports) will be added to the July 2020 National Veterans Wheelchair Games. The National Veterans Wheelchair Games is a wheelchair sporting event for veterans. Now, competitors will be able to compete in esports in addition to traditional sports.

Microsoft and VA leadership continue to deal with issues tied to online gaming communities. Sometimes, toxic communications between users occur. This can be damaging for users' mental health. However, Microsoft and the VA remain convinced that the benefits of gaming outweigh its risks.

"Whether it's veterans gaming or service members using games while they're on deployment, it's something that we really want to be on board with," Virzi said.

Sailors will use Xbox controllers to steer submarine periscopes
By The Virginian-Pilot, adapted by Newsela staff on 09.25.17

ABOARD USS JOHN WARNER — The control room of one of the Navy's most advanced submarines is full of the latest technology. It has sophisticated computers, flat-screen monitors and sailors who grew up playing video games. It can look a bit like a video game arcade, and not just because of the high-resolution graphics.

The Navy is beginning to use an Xbox 360 controller to operate the periscopes aboard Virginia-class submarines. Periscopes are the peepholes that can see out of the top of a submarine. The controllers are the same as the ones you find at the mall for the game system.

Out With The Old

Virginia-class submarines are not like other types of submarines people see in Hollywood movies. They don't have a traditional rotating tube periscope that only one person can look through at a time. It's been replaced with two pieces that rotate 360 degrees. They feature high-resolution cameras whose images are displayed on large monitors that everyone in the control room can see. There's no barrel to peer through anymore. Everything is controlled with a helicopter-style stick. However, that stick isn't so popular. The Navy got together and they asked a bunch of junior officers and others, "What can we do to make your life better?" said Kyle Leonard, a junior officer. He is also the USS John Warner's assistant weapons officer. Leonard said the old periscope controls were clunky and large.

"Skills Sailors Grow Up With"

Lockheed Martin is a company that makes weapons and other military equipment. Officials from Lockheed Martin and the Navy have been working to use commercial off-the-shelf technology to reduce costs. They also want to take advantage of the technological skills sailors grow up with. The use of the video game controller grew out of those efforts.

Lockheed Martin calls its research lab in Manassas, Virginia, the submarine version of "Area 51." The mysterious nickname was originally given to a Nevada base where some of the Air Force's most advanced and secretive projects are tested.

The Xbox controller is no different than the ones many crew members grew up playing with. Lockheed Martin says the sailors who tested the controller at its lab were able to figure out how to use it on their own within minutes. That compared to hours of training required for the joystick.