Ubisoft game aims to be what the doctor ordered

3 March 2015, by Glenn Chapman

Ubisoft senior producer Mathieu Ferland shows off a "Dig Rush" video game seeking approval from US regulators to be used as a prescribed medical treatment for an eye condition effecting millions of people on March 2, 2015 in San Francisco, California

Ubisoft on Tuesday unveiled a tablet video game crafted as a prescription for a medical condition known as "lazy eye," blending the worlds of play and health care.

The France-based video game titan created "Dig Rush" in collaboration with US health technology startup Amblyotech, using treatment technology patented by innovators at McGill University in Canada.

"This is a good demonstration of the positive impact that video game technology can have on our society," said Ubisoft senior producer Mathieu Ferland.

The game targets amblyopia, a condition in which a person's eye and brain are out of sync, is reported to affect three percent of the global population. If untreated, people with can go blind in one eye, according to Amblyotech chief executive Joseph Koziak.

"When you look at a person who has it, one eye is visually misaligned as compared to the other," Koziak said. "The traditional monicker is 'lazy eye.'"

Amblyopia involves one eye being far less useful than the other, creating a situation in which the brain responds by suppressing visual input from a weak eye and relying on the strong eye, according to Koziak.

Relying on one eye results in people losing depth perception.

"Dig Rush" requires both eyes to take part in order to effectively play the game. Characters, equipment and scenes set on a gray background are either red or blue, and players wear glasses that filter out one color or the other depending on the eye.

"The only way to play this game is to force the patient to use two eyes," Ferland said.

"This treatment is reconditioning the brain to use both eyes."

**Game as prescription**

Amblyotech is seeking approval from US regulators to have "Dig Rush" be prescribed by doctors. Medical care providers would provide tablets as treatment tools, tending to training, calibration and settings as well as monitoring progress.

Testing has shown "Dig Rush" is about 90 percent effective in improving vision of those with the condition, according to Amblyotech chief operating officer Robert Derricotte.

Current treatments are relatively ineffective and involve providing a patch to cover a person's dominant eye to force the weaker eye to work with
the brain, but still leave a patient without 3D perception, Derricotte said.

"This is a game changer," Derricotte said. "Doctors have been patching patients for over 200 years; this is a radical new way to treat Amblyopia."

Pricing for the game had yet to be announced.

Koziak saw "Dig Rush" as the first of a new order of treatments delivered by touch-screen tablets instead of traditional medical methods.

"I look at the table as the syringe of the future; where you use a visual display to administer a drug to a patient," Koziak said.

"While this is for an ocular disorder, there are going to be other medical conditions in the future that can be treated through this kind of display."

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