

Software developer hopes to turn rehab into video game

March 20 2015, by Glenn Chapman



Software engineer and TED Fellow Cosmin Mihaiu shows off a MIRA Rehab game designed to make typically tedious physical rehabilitation exercises fun

A broken arm as a boy led Cosmin Mihaiu and some inventive colleagues to turn tedious physical rehabilitation exercises into a game that they hope can make it easier for people to recover from injuries.

The Romania-born software engineer demonstrated the game Thursday at the prestigious TED Conference in Vancouver, showing how it can be played on the motion-sensing video game platform Kinect for Microsoft's Xbox.

"We need to come up with solutions to get patients motivated to get better," Mihaiu told AFP.

"No one likes treatment, but if we can make it in a way where people don't think it is cumbersome they will get better faster and save costs."

Mihaiu and colleagues devised the software application to work with physical therapists to customize motion-control games to reward patients for doing prescribed movements.

The system, which is called Mira (Medical Interactive Recovery Assistant), is currently designed for play offline in clinics. Its makers plan to create an online version that people could use at home, with performance data shared with therapists.

"We don't want to replace the [physical therapists](#)," Mihaiu said.

"We want to develop a digital pill that can be prescribed to help the patient get better."

Mira is being tried in clinics in Britain and Romania, with an annual subscription price of several thousand dollars, Mihaiu said.

He said that there is a large market in the rehabilitation industry because unlike consumer-focused fitness games, medical games come with endorsement and follow-up by doctors, nurses or therapists.

Other game makers have caught on.

Ubisoft early in March unveiled a tablet video game crafted as a prescription for a medical condition known as "lazy eye," blending the worlds of play and treatment.

The France-based [video game](#) titan created "Dig Rush" in collaboration with US health technology startup Amblyotech, using treatment technology from innovators at McGill University in Canada.

The game targets amblyopia, a condition in which a person's eye and brain are out of sync. It is reported to affect three percent of the global population.

The game is like a "syringe of the future; where you use a visual display to administer a drug to a patient," Amblyotech chief executive Joseph Koziak said at a [game](#) developers conference in San Francisco.

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