

Balancing physiotherapy and fun

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A team of Victoria University of Wellington students and graduates has created a balance board that helps people stay motivated and have fun while undergoing physical therapy.

As part of the Viclink Digital Futures / Product Futures summer 'boot camp', an interdisciplinary team of engineers, marketers and designers developed Switchboard—a balance board that connects to a smartphone and allows patients to play games.

Numerous studies have shown that [balance boards](#) are an effective aid

for muscle rehabilitation, which is why their use is often prescribed by physiotherapists. Switchboard addresses what is considered the biggest fault in traditional boards—the user's lack of motivation to train consistently.

The solution in Switchboard is a suite of games which are custom made for the balance board controller, including snowboarding and flying, which users play while they are exercising.

"The user doesn't have to think about the fact that they are exercising, because they are having fun," says engineering student and project manager Lukas Stoecklein.

"Additionally, having the balance data in digital form provides physiotherapists with insights about their patient's progress. We can even change what exercises the games encourage you to do, according to what the physiotherapist or user wants, so people can train more efficiently."

During the 'boot camp'—designed to help graduates learn how to bring a product to market—the team met with Steve McHardy, General Manager at the International Rugby Academy, to give a demonstration to rugby players. "The players were keen on the idea and said they would enjoy using the board as part of their training," says Lukas.

Alongside Lukas was a team of two media designers, one industrial designer, one electrical engineer, and two software computer scientists. The programme was led by Dr Edgar Rodriguez and Kah Chan from the School of Design, Dr Will Browne from the School of Engineering and Computer Science, and Alan Hucks from Creative HQ.

Switchboard has commercial opportunities on the horizon, with support from Viclink, Victoria's commercialisation company. The team has also formed a start-up company called Swibo to continue work on the

project.

Switchboard is currently in the prototype stage, and is being tested by Wellington physiotherapists.

Provided by Victoria University

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