

BY MARJA MAKAROW

How smart!

At the age of 17, after eight years of piano lessons and miserable theory lessons, I concluded I have no musical talent whatsoever. The realisation hit me after meeting a friend who improvised jazz without ever having attended a single piano lesson. My parents believed I had inherited the music gene: after all, my family had produced a long line of musicians, opera singers, and even a pop star.

Last March, in the café of the Helsinki Music Centre, I watched Jukka Louhivuori demonstrate the SmartHand project – an invention

that transforms your hand into a musical instrument. He pulled on a leather glove equipped with twelve textile-integrated sensors attached to the fingertips. He activated his iPad, chose “saxophone”, and started tapping the sensors.

SmartHand is a “wearable” instrument that can be used anywhere, even in confined spaces such as an aircraft. It is a teaching tool that makes studying music appealingly simple: even small children quickly learn how to use and love it. With special software developed for the glove, you can play any instrument in any band or orchestra by erasing a particular track in an existing recording.

Louhivuori is a professor of music education at the University of Jyväskylä in Central Finland. He is among the smart researchers who are transforming their clever ideas into new products and services. Hungry for more of this, Finland’s universi-

ties have launched the Helsinki Challenge, a competition for science-based innovative ideas. Over 120 teams signed up for this year’s round. Twenty finalists will be coached to further develop their projects, which tackle challenges such as the digitalisation of education, urban loneliness, the health of soil ecosystems, and sustainable transport. The competition is part of Finland’s centenary jubilee programme and it will culminate in November in an award ceremony where the winning team

receives 375,000 euros to implement their idea.

A new record of 2.5 million patents were filed worldwide in 2015. What was the driver of this surge in inno-

vation? The answer is cross-disciplinary, cross-border collaboration: rather than relying on local expertise, smart scientists, innovators, and companies found via the Internet the best collaborators across the world, defying institutional and geographical borders.

However, a university research background or company setting is not always required to breed brilliant ideas. Take Perttu Pölönen who was still in high school when he invented Musiclock, a tool that makes learning music theory and scales easy. The young Finn won the 2013 European Union Contest for Young Scientists in 2013 and Musiclock was one of the most popular apps downloaded in 2015 in the App Store.

Had innovations such as SmartHand and Musiclock been around during my youth, my experience with the piano might have been a happier one. ●

CROSS-DISCIPLINARY, CROSS-BORDER COLLABORATION IS WHAT DRIVES INNOVATION.

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