

HARIMATA

2016 Nominet Trust 100 Winner

2016 Nominet Trust 100 Winner

2016

TABLET-BASED TECHNOLOGY DETECTS AUTISM IN YOUNG CHILDREN

Project URL: <https://twitter.com/harimatacompany>

Project Twitter: [@harimatacompany](https://twitter.com/harimatacompany)

Organisations Involved Harimata <http://harimata.pl/> ([@harimatacompany](https://twitter.com/harimatacompany))

University of Strathclyde

Gdansk University of Technology

- Health
- Audiovisual
- Mobile

Autism is a neurodevelopmental disorder that affects one in 68 children in Europe and North America. In the UK alone, 700,000 people live with autism and the support costs are nearly £25 billion annually.

While specialist clinicians are able to diagnose autism, the process is costly and time consuming. It takes over 2.5 years for parents to receive a diagnosis, yet early therapy is associated with significantly improved quality of life.

Computer scientist Pawel Jarmolkowicz teamed up with scientists at the University of Strathclyde and Gdansk University of Technology to research whether there was a better way to diagnose children with autism.

The team ran an experiment where 37 children with autism and 45 children without autism played two commercially available games, Sharing and Creativity, and found that children with autism had a particular motor signature while playing - for example hitting buttons harder. In fact machine-learning algorithms that focused on motor patterns identified children with autism with 93% accuracy.

Jarmolkowicz has made this method widely available through his startup Harimata and its Play.Care system. Parents can download Play.Care on their iPad (an Android version is coming soon), and let the child play a game for 15 minutes.

haviour
through more than 340 parameters per second, collecting touch-screen,

movement sensor and game flow data. An easy-to-understand report is generated at the end, providing an estimate of the risk that the child may develop autism.

If the risk is high, parents are encouraged to seek a child therapist for further analysis. While Harimata doesn't prevent or cure autism, it has potential to help provide early care to autistic children, which can save around £1.3 million over a child's lifetime. Find out more at <http://harimata.pl>

Image courtesy of Harimata

Last updated: 12th of October, 2016