Embracing Every Mind: AI Technologies for Neurodivergence Identification and Support

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Around one in five people are neurodivergent, with ADHD, autism, and dyslexia being the most frequently seen forms. Early identification and tailored support significantly improve educational outcomes and mental well-being for children whose brains work differently. However, traditional behavioural diagnostics fail to recognise neurodivergence early, and access to support is constrained by limited specialist resources.

At the University of Strathclyde, we are pioneering innovative, AI-powered technologies for neurodivergence identification and support. Drawing on over a decade of research, we developed a clinically validated Artificial Intelligence (AI) that analyses motor patterns as children play fun, simple iPad games. Initially focused on autism, this tool detects neurodivergent traits in children aged 2-6, including those with uncertain behavioural presentation. We are now developing an AI assistant to empower educators with best practices in neurodivergence, using evidence-based guidelines to suggest optimal support strategies.

Integrated into schools, our technology will ensure that every child's needs are recognised and supported, including those awaiting healthcare assessments or not meeting formal diagnostic thresholds. Together, we can enhance children's social and academic outcomes, helping prevent crises such as mental health challenges or school refusal. By equipping educators with the tools for neurodiversity-informed best practices, our technology can foster professional growth and reduce the stress of managing complex behaviours without adequate resources—empowering both children and those who support them.

References:
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