

# EMPOWERING AUTISTIC CHILDREN THROUGH DIGITAL PLAY

## A CASE STUDY



Rachael Malthouse, PhD student and Founder of Spectrum Tailored Technologies, exemplifies how an entrepreneurial mindset can help turn innovative research ideas into life-changing technologies.



As she was embarking on her PhD, Rachael's autistic son was finding school harder and harder. Building on her academic research in health technologies, she decided to design an app that would make things easier for him. Now in its second year, Jam Up! has received over £200,000 of grant and prize money and has won multiple tech-industry competitions.

With a background in physiotherapy, Rachael's PhD focuses on how older people living in supported accommodation use technologies in their everyday lives. Spending time with people using assistive technologies, and learning about the barriers associated with their use, Rachael developed a strong sense of what health technologies need to do to succeed.

Developing Jam Up! has brought together Rachael's academic expertise and lived experience as the mother of an autistic child. Long diagnostic delays and pressure on overstretched services mean that many autistic children don't receive support until their needs become more complex - a situation that can leave families struggling.

Jam Up! offers immediate, accessible support by combining practical guidance for parents and carers with a digital play-based approach for children. Rachael's son finds everyday tasks like getting dressed overwhelming and frustrating. By gamifying these tasks and breaking them down into their component parts, Jam Up! empowers children to manage these daily routines in a playful way.

Rachael's entrepreneurial mindset, and decision to create Spectrum Tailored Technologies, the start-up company behind Jam Up!, has unlocked new opportunities for financial support. She has also developed a diverse research network, collaborating with universities, including Anglia Ruskin, Birmingham, Essex and Plymouth, on internships and PhD studentships to continue development of the app.

Tapping into the support available for start-ups has been vital to the development of Jam Up! Through Creative UK's Cornwall Create Growth programme, Rachael has gained access to pitch practising, mentoring, networking opportunities and showcases. The team is currently working with investors and NHS commissioners to secure the long-term future of the business.

## AT A GLANCE

### TOP TIPS

- Don't overcomplicate: the simplest route is often the most effective
- Always keep your audience in mind
- Keep track of IP: work with your university to figure out who owns it



**RACHAEL MALTHOUSE**

PHD FOUNDER AND ENTREPRENEUR

*"The opportunities keep rolling in - university collaborations and business opportunities just feed into one another."*