

Digital worlds can help autistic children to develop social skills

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The benefits of virtual worlds can be used to help autistic children develop social skills beyond their anticipated levels, suggest early findings from new research funded by the Economic and Social Research Council (ESRC). Researchers on the Echoes Project have developed an interactive environment which uses multi-touch screen technology where virtual characters on the screener act to children's actions in real time.

During sessions in the [virtual environment](#), primary school children experiment with different social scenarios, allowing the researchers to compare their reactions with those they display in real-world situations.

"Discussions of the data with teachers suggest a fascinating possibility," said project leader Dr Kaska Porayska-Pomsta. "[Learning environments](#) such as Echoes may allow some children to exceed their potential, behaving and achieving in ways that even teachers who knew them well could not have anticipated."

"A teacher observing a child interacting in such a virtual environment may gain access to a range of [behaviours](#) from individual children that would otherwise be difficult or impossible to observe in a classroom," she added.

Early indications of this research are that over a number of sessions some children demonstrate a better quality of interaction within the virtual environment and an increased ability to manage their own

behaviour, enabling them to concentrate on following a virtual character's gaze or to focus on a pointing gesture, thus developing the skills vital for good communication and effective learning.

The findings could prove particularly useful in helping children with autism to develop skills they normally find difficult. Dr Porayska-Pomsta said: "Since [autistic children](#) have a particular affinity with computers, our research shows it may be possible to use digital technology to help develop their social skills."

"The beauty of it is that there are no real-world consequences, so children can afford to experiment with different social scenarios without real-world risks," she added.

The findings from the Echoes Project will showcase technologies for autism during an event in Birmingham which is part of the ESRC Festival of Social Science in November. The event will involve pupils, parents and teachers. Participants will be given the opportunity to engage in hands-on experiences, workshops and discussion.

"In the longer term, virtual platforms such as the ones developed in the Echoes project could help young children to realise their potential in new and unexpected ways," concluded Dr Porayska-Pomsta.

Provided by Economic & Social Research Council

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