<http://www.theguardian.com/lifeandstyle/2012/feb/26/computer-geeks-autism>

IT companies in the UK and beyond are actively recruiting an autistic workforce for its highly technical and concentration skills.

The potential of computers to help a group that struggles to communicate and form relationships in real life is obvious. [Professor Simon Baron Cohen](http://www.autismresearchcentre.com/people_baron-cohen), Director of the Autism Research Centre believes they outweigh the possible risks: "We can use computers to teach emotion recognition and to simplify communication by stripping out facial and vocal emotional expressions and slowing it down using email instead of face-to-face real-time modes."

Research at Nottingham University and Carnegie Mellon University in Pittsburgh has found that people with autism value the increased control over their interactions that is afforded by the filter of a computer screen. They can observe interactions, choose when to be sociable and make contact with other people who have autism.

Presenting information visually in the precise and predictable computer format suits the autistic mind, says Baron Cohen, and can provide "a tool or platform for developing further skills".

"We do need to think about the tendency in autism to become fixated on narrow activities. They may have the skills to use computers but not to know when to stop."

"People with autism need space, and computers can offer that," says Sharpe. "But we have to make sure they don't take over and make other relationships, already difficult for people with autism, even harder."

She advises parents to keep computers in communal spaces, limit their use and to help children learn to question what they read, guidelines which Mills supports. "This virtual world has to help people access the real world, not isolate them further. They must control it, not be controlled by it," he says. "We have to reinforce the positives."

<http://www.bbc.com/news/health-16534678>

As a result, devices like iPads are fast becoming a 'must-have' for many families of children with autism.

Richard Mills, head of research at Research Autism and the National Autistic Society, says the technology is an opportunity to take "a huge step forward in our understanding of autism".

"They allow us to have an insight into how children think. People with autism have a different kind of intelligence. Their visual memory is strong, so PCs are highly motivating."

"Every time Veronica got an answer right, she got a token and she knew she had to get five tokens to get to the musicbox," her mum says.

"She was very motivated to answer the questions."

Aimed at non-verbal children from the age of 18 months upwards, the app encourages players to focus on other people and their needs, something people with autism find difficult.

says using touchscreen technology is crucial.

"A mouse and keyboard are not accessible for the youngest children. Early intervention is key for the most severely affected and iPads have allowed us to design for youngest ages

"The app allows children to rehearse simple social skills over and over again. Practice makes perfect."

"Different apps will work for different children with different needs.

"Independent touchscreen apps look very promising but they are sometimes just a slick way of using flash cards.

"Parents need to approach this sensibly and methodically."

And he says parents should always restrict the length of time children use computer devices, to make sure they do not become obsessed by them.

"Family and friends reward children with smiles and encouraging comments, but autistic children don't understand these social reactions.

"PCs allow them to develop in a more motivational learning environment, which is comfortingly repetitive."

<http://www.autism-help.org/intervention-sensory-integration-computers.htm>

Individuals on the autism spectrum often have a kind of tunnel vision, where attention is tunneled, objects are isolated and deprived of context (people with Autism have monotropic interest systems). Tunneled interest systems make for an alarming world, fragmented, disconnected. A computer is unthreatening and controllable. It provides a comfortable environment which facilitates therapeutic transactions in which communication, sociability and imaginative play spontaneously occur.

Computers can be an ideal environment for promoting communication, sociability, creativity, and playfulness for individuals even at the extreme of the autism spectrum. The potential for computers in Autism is not just educational but therapeutic. Computers afford an easy way of joining attention tunnels with minimal mutual discomfort, so circumventing some of the most disabling features of Autism and Asperger's. Intensely focused interests may bring dividends lost to children who typically model their world within broad contexts, bearing many interests simultaneously in mind.

Computers may also provide benefits in issues with:

• Learning/memory

• Visual tracking/scanning

• Planning/organisation

• Eye-hand coordination

• Problem-solving

• Spatial analysis/synthesis.

Time limits may need to be set on how many hours it can be used each day, and for what activities.

<http://www.autism-resources.com/papers/LINK.htm>

A number of programmes are poorly suited to the specific needs of people with learning difficulties, especially autistic people. Some are written by experts in specialized teaching and are thus very good from the didactic point of view but their technical qualities are often not up to scratch: insufficiently reliable, insufficiently flexible, laborious implementation, etc. Other programmes have been written by computer scientists which, despite evident good will and obvious computer skills, have only been able to create programmes with generally fairly limited teaching qualities. There is a crying need for coordination between the two groups. Beyond these two specialties and in light of the complexity of the group of people for whom these programmes are developed, it would be good if multi disciplinary teams, including teachers, psychologists, neurologists, psychiatrists, as well as cognitive specialists and occupational therapists took part in the development of educational programmes.