



Adapting Technology ■ Changing Lives

AbilityNet Factsheet – January 2019

Autism and Computing

Autism or ASD (Autism Spectrum Disorder) “...is a lifelong developmental disability that affects how people perceive the world and interact with others.” (National Autistic Society, 2018). Autism is a spectrum condition and people with autism can often have accompanying learning disabilities, difficulties and needs.

Despite the challenges experienced by people on the autism spectrum, it is increasingly being identified as a neurodiverse condition. Neurodiversity recognises that humans are not all the same and a neurological difference such as autism is a normal variation of the human experience with a number of positive and desirable character traits and a fundamental part of a person’s identity.

It should be recognised that there is an ongoing debate regarding the language used to describe people on the autism spectrum as well as identity-first terms such as ‘autistic’ or ‘Aspergers’.

Table of Contents

1. What is autism?	3
2. How can tech help?	3
<i>Software support:</i>	<i>4</i>
3. Useful Contacts	5
4. How can AbilityNet help you?	5
<i>My Computer My Way</i>	<i>5</i>
<i>Workplace Assessment Service.....</i>	<i>6</i>
<i>Consultancy services.....</i>	<i>6</i>
<i>DSA / Student assessments.....</i>	<i>6</i>
5. About AbilityNet	7
<i>Support us</i>	<i>7</i>
<i>Contact us.....</i>	<i>7</i>
6. Copyright information.....	7

1. What is autism?

There are around 700,000 people in the UK on the autism spectrum (more than 1 in 100). It is a lifelong developmental condition that affects how people communicate with and relate to each other as well as how they perceive the world. Someone on the autism spectrum can often struggle with interpreting things like body language, sarcasm, jokes and metaphors.

Autism is a spectrum condition, meaning it will affect those who have it in different ways. However, there are some common characteristics that tend to be reasonably universally shared:

- Difficulties with social interaction
- Sensory sensitivities (sound, light, smells)
- Specific interests
- A love of routine and a need for sameness

Greater understanding as well as inclusive interviewing and hiring practices mean that the many positive traits and skills of people on the autism spectrum are now being accessed and are highly prized in a range of contexts and career choices. Commonly these are things such as:

- High attention to detail
- Ability to focus
- Strong engagement and knowledge in specific areas of interest
- High level of integrity

Asperger Syndrome is a term used to describe people considered to be at the higher-functioning end of the autistic spectrum. People with Asperger Syndrome may still experience the social challenges associated with autism but are typically of average or above average intelligence and do not have the accompanying learning difficulties that may be associated with the condition.

Although Asperger Syndrome is still widely used and it is how many people with the condition chose to self-identify (often using the term 'Aspie') there is debate surrounding the term due to its origins.

2. How can tech help?

Technology such as computers, tablets and smartphones offer a great deal of support and independence to autistic people:

- Communication can take place via text (email, messaging, etc.) and therefore does not need direct social interaction. It is also less reliant on nuance and body-language.
- Shopping can be done online and delivered directly to the door in situations where social anxiety may prevent someone from going out or require them to be reliant on another person.
- Computers enable learning in an engaging and accessible way and do so with level of control over the environment (noises, sounds, etc.) that traditional learning environments such as lecture theatres and classrooms may not be able to offer.
- Computers and other devices allow access to vast amounts of information and can cater for individual, specific interests in a way that was not previously possible, they also offer a means of meeting people (either in-person or online) who share these interests.
- With touch-screen and stylus (pen) inputs on many devices, along with handwriting recognition, notes can be handwritten and then converted into neater, editable text that is much simpler to organise.
- Technology can also offer a useful tool for reducing anxiety; with not only the availability of things like maps and directions, but also with apps designed to provide assistance with managing anxiety in instances where human support may not be so easily available.
- Advances in facial and mood recognition as well as natural language processing also offer a person with autism a means of decoding social situations.

Software support:

- Mind-mapping software allows ideas to be jotted down quickly and visually without initially worrying about structure or order. Links between the ideas can then be added to give a visual structure of connections between themes and ideas, this can also help with memory. Most mind mapping software offers the choice to build scattered maps where things can be added anywhere, or more ordered tree-diagrams.

- Speech-to-text (dictation) software offers a way of quickly getting ideas onto the page much faster than typing and can also help with spelling difficulties. Speech recognition software can also offer an alternative method of controlling your device.
- Text-to-speech software enables text to be read aloud. This offers an alternative to direct reading. It can also be used alongside reading to improve focus and reduce distraction. Hearing something read back is often a much more efficient means of proofreading, as spelling mistakes, the use of the wrong word, or instances of poor clarity will be more obvious when heard read aloud.

3. Useful Contacts

National Autistic Society

www.autism.org.uk

Scottish Autism

www.scottishautism.org

Child Autism UK

www.childautism.org.uk

NHS Health A-Z

<https://www.nhs.uk/conditions/autism/>

4. How can AbilityNet help you?

AbilityNet is a leading authority on accessibility and assistive technologies. We can assist individuals, charities and employers by providing:

- advice and information
- workplace assessments
- consultancy services
- DSA / student assessments

My Computer My Way



My Computer My Way is a free, interactive tool developed by AbilityNet that makes any computer, tablet and smartphone easier to use.

It can help you ensure that your equipment is set up the best way possible to suit your particular needs. It covers all the accessibility features built into your computer, laptop, Chromebook, tablet or smartphone, and all the major operating systems – Windows, MacOS, iOS, Chrome OS and Android.

My Computer My Way shows you how to adjust your computer to assist with:

- vision – help seeing your screen
- hearing – help with sounds and audio
- motor – help with your keyboard and mouse
- cognitive – help with reading, spelling and understanding

You can use it for free at www.mycomputermyway.com

Workplace Assessment Service

When it comes to technology solutions, one size does not fit all. We believe that each case is unique and that individual attention is vital. Our Workplace Assessment Service integrates personal, technical and organisational considerations to arrive at sound and realistic suggestions, documented in a report.

To find out more about AbilityNet's Workplace Assessment Service, please visit www.abilitynet.org.uk/workplace or call 01926 465 247.

Consultancy services

Our expert consultants are also available to assist employers who wish to take a broad, longer-term view in designing computer systems and associated work processes. Our experience and expertise can help you to achieve safe, healthy and productive working procedures.

To find out more about AbilityNet's consultancy services, call 01962 465 247 or email sales@abilitynet.org.uk

DSA / Student assessments

If you have a disability and are in higher or further education, you may qualify for a Disabled Students Allowance (DSA). If you are eligible you will receive a free assessment and may qualify for a grant towards any adjustments that you might require. This could help with the costs of buying a new computer or any other specialist equipment you might need.

For information, please visit www.abilitynet.org.uk/dsa or call 01926 464 095.

5. About AbilityNet

AbilityNet is the national charity that supports people with any disability, of any age. Our specialist services help disabled people to use computers and the internet to improve their lives, whether at work, at home or in education. We offer:

- free advice and information
- accessibility services
- DSA/student assessments
- workplace assessments
- IT help at home
- IT volunteers.

Support us

Visit www.abilitynet.org.uk/donate to learn how you can support our work.

Contact us

- Telephone 0800 269 545
- Email enquiries@abilitynet.org.uk
- Web: www.abilitynet.org.uk

We are always keen to help share knowledge about accessibility and assistive technology. If you have any questions about how you may use the contents of this factsheet, please contact us at AbilityNet and we will do all we can to help.

6. Copyright information

This factsheet is licensed by AbilityNet under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.



View a copy of this license at <http://creativecommons.org/licenses/by-nc-sa/3.0/>