

TERRA NOSTRA

ISSUE 4
CELEBRATING MIND DIVERSITY



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LOOK OUT FOR THESE!



Foreword

March 15th - March 21st is Neurodiversity Celebration Week in which over 1000 schools and 675,000 pupils will take part in celebrating and learning about those with learning differences. We've produced a special edition of Terra Nostra to do just that! In this issue, you will find a range of articles written by the SEN department and a few other Teachers covering a wide range of topics related to learning differences.

There's articles on Autism in the Developing World, a really useful summary of some TED talks on the subject, a look at the creator of the Pokémon series, amongst a plethora of other interesting subjects.

Only by learning about learning differences and recognising the value of individuals with them can we create a truly integrated future where all feel able to flourish. This is the aim of Neurodiversity Celebration Week. To remove the stigma surround learning differences and enable us to see the strengths and value that such individuals offer.

It's been a real pleasure to work on this Issue and I want to personally thank any members of the team that have taken time out of their busy schedules to produce the material within.

Mr Green



NEURODIVERSITY IT TAKES ALL SORTS OF BRAINS

By Mrs Geary

Neurodiversity is all about understanding that people's brains are different. We all think and learn differently, have different attention spans and experience different moods - and that is completely normal.

All of us have our own strengths and needs, an infinity of combinations! There are things we are good at, and things we need a bit of help with. We spend a lot of time at school, and it's an easy misconception that being 'smart' is all that counts. But our strengths or abilities aren't all academic - some of us might be sports smart, maths smart, music smart, socially smart. And we all have different things we need support with.

Some combinations of strengths and needs have a name. You might be familiar with some of them, like ADHD/ADD, dyspraxia, dyslexia, dyscalculia, autism or Tourette's syndrome. They're all different, but what they have in common is that they affect how a brain works. Not better, or worse, just different. It's thought that 1 in 7 people in the UK are neurodivergent, meaning that their brain functions, learns and processes information differently. That's equal to about 20 students in each of our year groups.

Understanding neurodiversity means recognising and respecting these differences - just like we notice differences in hair, eye or skin colour, but respect each other equally. It is recognising that a person's experience of life, and school, can be affected by these differences, and that there are ways we can help to make our school a place where everyone feels comfortable. It also means understanding that neurodiversity can bring huge benefits to those with

learning and thinking differences and to the people around them. Together we can achieve great things!

Imagine a sports team- their strength will be based on difference, not uniformity. A deliberate blend of specific and unique strengths- a fast runner, a high jumper, a strong kicker, some strong, some nimble. It's this diversity that gives the team its success and its strength. And it's the same for our school community- if we all thought the same, we'd all come up with the same ideas, the same solutions. Within our team, we need problem solvers, creative thinkers, social extroverts, quiet introverts.

Think of what we can achieve if we combine our brains, all bringing our strengths, all accepting of our weaknesses, celebrating our differences.



'We are the dreamers. The pioneers. The change-makers. The future business leaders. We are the trailblazers, the adventurers. The discoverers. We are the Einsteins and the Bransons of tomorrow.'

- Siena Castellon, author of 'The Spectrum Girl's Survival Guide: How to grow up Awesome and Autistic' and founder of 'Neurodiversity Celebration Week'.



LIFE IS LIKE A BOX OF CHOCOLATES...

By Mr Green

"My name's Forrest Gump. People call me Forrest Gump."

Tom Hanks' 1994 performance in the movie Forrest Gump has continued to warm the hearts of audiences for over 25 years. In this movie, Hanks portrays the lovable, if somewhat misunderstood, titular character of Forrest Gump. The film follows Forrest on his journey from childhood to adulthood as he grows up in some of the most tumultuous years of the 20th Century. This is made all the more interesting by Forrest's unique way of engaging with the world around him. Whilst this does lead to many hilarious escapades, Forrest continually overcomes challenging situations with a gentle smile and southern wisdom.

"What's normal anyways?"

Often described as simple, Forrest's behaviour and mannerisms have led to years of debate about his needs. The constant question that appears is whether Forrest belongs on the Autistic Spectrum? In August 1996, two Japanese doctors applied a tool for diagnosing autism to the character of Forrest. They found that when they consulted the original source material from the book, Forrest has many autistic tendencies. For example, Forrest struggles to develop and maintain relationships with his peers. He also experiences delays in developing spoken language and difficulties maintaining conversation. Forrest even admits that "I ain't too good at long conversation." He

also follows routines or plans rigidly and finds it difficult to thrive in situations without clear structure.

The doctors also noted that Forrest displays a general innocence when confronting the world around him. He is refreshingly frank, incredibly generous, trustworthy, and he has an excellent rote memory.

"I had run for 3 years, 2 months, 14 days, and 16 hours."

What makes Forrest such a great character is how he utilises what many would consider disadvantages to create situations in which he is successful. A solid outlook on life instilled in him by his mother allows Forrest to believe that he is that same as everyone around him no matter what challenges he faces.

For example, Forrest discovers early on that he has a talent for running when he is chased by bullies. Up to this point Forrest has been locked in leg braces but his perseverance, coupled with his love of dancing, enables him to develop the strength to become a world class runner. This one talent becomes Forrest's gateway to education and a life outside of Greenbow after he is given a scholarship to play sport at the University of Alabama.

Forrest then joins the army just in time for the Vietnam War. His ability to follow rules and adhere to well structured expectations allows Forrest to thrive. He is such a good recruit that at several times the Drill Sergeant claims that Forrest is "gifted" or a "genius." Those that pay close attention to Forrest's uniform may notice that he has received an Expert Rifleman Qualification Badge. This is the highest marksmanship award in the army and suggests that Forrest is extraordinary in his dedication, precision and practice when compared with his peers.

He forms strong relationships with his comrades in particular his fellow recruit Bubba. The latter successfully persuades Forrest to join him in the operation of a shrimp boat upon being discharged from the army. However, during one engagement Forrest finds himself the only non-wounded member of his platoon and disobeys several orders to save his comrades. Once again, his ability to run and his dedication to the relationships he has formed within the

structure of army life lead to him becoming extraordinary.

For his act of bravery Gump is awarded the Medal of Honor and gets to meet the President of the United States.

His positive outlook on life enables Forrest to recuperate much faster than his commanding officer who sinks into a pit of despair. After picking up table tennis as a hobby during his time in hospital, Forrest develops his skills through obsessive practice. He gets so good, in fact, that he is selected to play the table tennis champion of China whom he beats.

Continuing to follow the plans he set out with Bubba, Forrest buys a shrimp boat and after a period of bad luck becomes incredibly successful. His former commanding officer joins him in the venture and finally finds peace. Forrest's unusual positivity and extraordinary patience once again pays off.

Gump then spends 3 years, 2 months, 14 days, and 16 hours running back and forth across the United States after his proposal of marriage is turned down by his childhood love. His extraordinary way of dealing with rejection inspires hundreds, if not thousands, to follow in his footsteps. For a man supposedly unable to form relationships, by running, Forrest is richer in friends than many.

...You never know what you're gonna get

You might think that good things just seem to happen to Forrest. You might think that he has no agency in the situations he finds himself in. I would argue that Forrest Gump has good things happen to him because of his unique way of seeing and engaging with the world. The people he encounters value his frankness, generosity and positivity. They see in Forrest the people they want to be. Forrest has a unique ability to take a challenging situation and find the positives. Forrest doesn't know which of the chocolates life will hand him but he does know that he will be ok. We could all learn a thing or two from him about how to be kind to one another and find value in the little things.

Tom Hanks, Forrest Gump, 1994





STRENGTH IN DIVERSITY

By Mr Balch

TED talks, freely available on-line, are a wonderfully rich resource for learning about a broad range of subjects. Leading thinkers reveal the stories behind their often highly innovative ideas. It seemed a good place to start for finding out more about neurodiversity. I was keen to explore how learning and thinking differently impacts on individual lives. Each talk I listened to proved to be a story of struggle but also of hope and the life-changing belief that neurodiversity is a strength.



The first speaker, Elaine Halligan ('Neurodiversity is a superpower'), describes her experience as a mother of a son with autism. From a young age, Sam's behaviour was seen as disruptive, aggressive and a problem. This led to him being expelled from three different schools. Elaine explains though, that 'all behaviour is a form of communication' and a diagnosis of autism with severe dyslexia allowed the family and school to adapt to Sam's needs. They set manageable goals that helped him feel better about himself. As Elaine says, 'only when your self-esteem is strong can you begin working with

your strengths'. With the right help, Sam went on to become head boy, something that would have been unimaginable in his younger years. On leaving school, he used his talents for problem solving and creativity, together with a hard-won resilience, to lead an 18000 miles long expedition across Europe and Asia.



For Jessica McCabe ('Falling off normal'), her experience of ADHD is like 'your brain is switching between 30 different channels and somebody else has the remote'. She speaks of society as being a complicated user manual for understanding how to live and neurodiverse brains can 'struggle to cooperate in a society that wasn't built for them'. Jessica says that the key to unlocking change is discovering what the brain's challenges are so that you can find solutions to them. A difficulty is that society can often group different conditions together as one and this can lead to unhelpful misunderstandings.

TED Ideas worth spreading



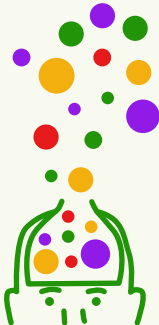
The truth is, we are all different – there is no normal, there is only neurotypical. Try out the Neurodiversity app., available on the i-phone and you will discover the huge variety of character traits that can be applied to those who would describe themselves as neurotypical. Magali de Reu ('Surviving and Thriving with Autism') explains that for every character trait that might be seen as 'difficult', there is a positive one too. Magali's direct, honest nature, together with boundless enthusiasm, has helped her make a big success of running her own business. For her, it's not just a matter of accepting a condition but of turning it into an asset.



In 'Understanding Neurodiversity', Joy Pierce describes a practical approach that we can all follow. He suggests that, for at least a week, we consciously decide not to judge others. Joy says that whenever we have a negative thought about another person, we can let it fall away and tell ourselves that everyone is different. This is a small step but Joy believes that

momentous changes in society can happen by beginning in this way.

Everyone's experience of the world is unique and understanding this is the first stage in meeting the needs of every individual. As Joy states, it's time to 'change our perceptions of people in order to make a better world for us all.' A successful society is surely one where difference is celebrated and where everyone can contribute meaningfully. There really can be strength in diversity.





AUTISM IN DEVELOPING COUNTRIES

By Mr Reynolds

In low and middle-income countries (LMICs), cases of diagnosed autism are much lower compared to populations in western developed countries (such as the UK or the USA) or affluent Asian countries (such as Japan). For example, statistics in the UK suggest 1 in 100 people are on the autistic spectrum, whereas in Oman statistics show 1 in 10,000, according to a study in 2014.

In LMICs, such as India for example, it is considered unlikely by most scientists that autism spectrum cases are actually less prevalent in the population. Instead, lack of access to diagnosis and services in the first place is considered a major contributing factor, but also cultural differences and the difference in understanding of autism has an effect.

There is also the consideration that much of the diagnosis criteria, testing, research and long term studies of autism have been carried out in affluent westernised societies, such as the USA and Western Europe, which can have different social norms and childhood behavioural expectations compared to many African nations, and less affluent nations in Asia.

Autism is not diagnosed medically, but is based on behaviour and how we understand behaviour. If our understanding and expectations vary across cultures, the diagnostic tools are unlikely to be universally suitable. The value that different cultural groups place on certain behaviours are varied.

For example, some cultures do not encourage imaginative play, and instead emphasises functional, simpler play for young children. This would immediately ring alarm bells for someone viewing the behaviour from a western perspective. Similarly, according to some research by Dr Pritvi Parepa of Northampton University focused on language, in some African cultures it is seen as inappropriate to use personal pronouns, and use of eye contact during communication is different. Again, this behaviour would be seen as signalling autistic tendencies, but are actively encouraged in that culture.

In some cultures, traditional views on childhood can differ from that in the west. In India for example, there is often a conception in families that boys develop speech much later, maybe as old as three or four. This may indicate an underlying speech impairment, or autism, but families will not seek support. In Iran, a study showed that parents are often more tolerant of behaviour that would be considered 'abnormal' in western societies.

Also, in many cultures, even affluent nations such as South Korea, there is a stigmatisation associated with children being sent to specialist schools. Commonly held beliefs that autistic behaviour can be caused by distant or cold mothers/parent exacerbate the issue, and seeking diagnoses may be frowned upon.

Particularly in the developing world, publicly funded schools will often be unable to adequately support autistic children, but parents will still want them to attend and to have a 'normal' childhood, rather than going to specialist school (which may be far away or costly for families). The stigma and lack of support can be driving factor in not seeking diagnosis, and not reporting difficulties the child faces.

In addition, it has been reported by ethnic minorities within the UK (for example) that support provided doesn't meet their cultural values, or is not accessible due to affordability; even simple things like driving to support groups and taking time off work can be an obstacle.

The lack of transferable diagnostic measures or tools for vastly different cultures seems to be putting many non-western cultures and LMICs at a disadvantage for understanding, identifying and providing support for autism. This goes some way to explaining the hugely

different statistics in the numbers of diagnosed autistic individuals between affluent developed countries, and low- and middle-income countries.

However, it should be noted that cultural values and societal attitudes that differ sharply from the western 'normal' are not always negative. Many community and family centred cultures may not wish to diagnose or 'label' autism, perhaps even rejecting it outright, but instead look more practically at how the autistic child functions and find ways to look after and support them.

Perhaps, this is a contributing factor to low autistic spectrum cases in developing countries, as communities do not see them as having a difference that needs 'labelling'. Instead, they are just part of neurodiversity that makes up the many different ways of thinking, different ways of comprehending the world, which naturally occur across all people of all backgrounds.



In India, there is a conception that boys develop speech much later, perhaps as old as three or four.



AUTISM IN GIRLS

By Mr Peace

Autism is a life-long condition that affects the way in which a person communicates, relates to other people and makes sense of the world around them. It usually becomes apparent in the first three years of childhood and can impact on a person's behaviour, learning and social skills for the rest of their life.

It is sometimes described as a 'variation' in thinking; people with autism simply view things differently to those without the condition, with neither view being 'right' or 'wrong'.

It is also a spectrum disorder, which means that everybody with autism is different. For example, some people will experience difficulties in multiple areas and it will have a severe impact on their day-to-day life, whereas others may have a singular difficulty which they find easier to manage.

Although autism affects everyone differently, the characteristics can be divided into three main groups:

1. Difficulty with social communication (verbal and non-verbal language).
2. Difficulty with social interaction (social skills).
3. Difficulty with social imagination (the ability to understand other people's thoughts, feelings and actions).

Autistic Spectrum Condition (ASC), as it is called, is hugely under-recognised in girls. There are roughly 3 times more boys diagnosed with ASC than girls.

So, why would this be? Well, the criteria used to diagnose young people with ASC are based on characteristics that autistic boys display, not girls. Research and surveys are often focussed around the male characteristics of autism and there is comparatively little research that focusses specifically on autistic women, largely because the condition is seen as more common in boys than girls.

In general, girls are more skilled at fitting in with their peers and masking behaviours so they do not stand out. Autistic females tend to use their words carefully, so rather than making meaningless comments, they will use their words with purpose and will not use small talk to initiate communication. Even if they lack the skills to interact, autistic girls often copy what their peers do and mimic the skills needed for social interaction. Autistic girls often will not initiate social contact but can quite easily 'go through the motions' of how they are expected to behave.

Girls are also better behaved than boys, and so are less likely to receive attention for behavioural characteristics as they are seen to be less of a problem.

People with ASC develop strong interests in particular things. Boys often develop interests in unusual subjects like trains, timetables, dinosaurs or machinery. Girls, on the other hand, commonly develop strong interests in things that are more typical of girls their age, such as books, dolls or celebrities. So whilst it is likely that the autistic girl's interest will be more intensified, it is much more likely to go un-noticed. That said, an autistic girl may develop a vivid imaginary world or take great joy in escaping into fiction.

Having identified that girls with ASC are under-diagnosed for various reasons, it is really important that we continue to work to redress this balance so that girls with ASC can be correctly diagnosed and offered the right support.

It is common for autistic girls to misunderstand the social hierarchy and be unaware of how to communicate with people of a different status. This can cause girls to become anxious or hostile if they don't

understand why fellow peers are more popular than they are. Girls who are exhausted from masking or maintaining a social pretence may become increasingly unwilling to attend school, participate in learning activities, or work collaboratively, and their actions may be misinterpreted by adults and peers resulting in exclusion from school. Furthermore, home can become the place where, after a day of masking, all the frustration and anger can come out, resulting in conflict and difficulty for the whole family.

Studies show that autistic girls are more likely to experience high rates of depression and anxiety than autistic boys. Beginning in their teenage years, the evidence suggests that autistic girls commonly develop mental health issues, including depression, anxiety and eating disorders. Staff at eating disorder clinics in Birmingham recently discovered that 40-70% of the women in their twenties attending the clinic were undiagnosed autistic women.

Girls and women with ASC need to be recognised, enabled and effectively equipped so they can make the life choices they choose and benefit from them.



Autism is usually diagnosed in children when they are 3 or 4



SUCCESS WITH DYSLEXIA

By Miss Porlich

Albert Einstein, Steven Spielberg, Walt Disney. These are all names that we know very well, for their contributions to society through their works. Did you also know that these well-known individuals, as well as many others now and throughout history, are dyslexic?

It is thought that as many as 1 in 10 people in the UK have some degree of dyslexia, so knowing that there are many well-known and successful people that are dyslexic should not be a surprising thought. Dyslexia is not a disadvantage; it is simply a different way of thinking. This different way of thinking coupled with its strong mechanical and entrepreneurial tendencies has led to some of the most innovative inventions and successes in our time.

Dyslexia is about how we process information. Dyslexic people may have difficulty processing and remembering information they see and hear, which can affect learning and the acquisition of literacy skills. Dyslexia can also impact on other areas such as organisational skills. Over the years, people have thought of dyslexia as a huge set back, associating it with low levels of intelligence and thinking it will hold them back in all aspects of their lives. This is where dyslexia has been hugely misunderstood. Dyslexia leads to problems with only certain abilities used for learning, such as reading and writing, and the way a person's brain is 'wired' means that a dyslexic person will just think differently about things and it is important to remember this. Many dyslexic people show strengths in areas such as reasoning and in visual and creative fields.

In 1976, one of the most prolific software companies was founded by Steve Jobs and Steve Wozniak. Soon,

their software would be widely considered visionary and genius, and be used by over 1.5 billion people worldwide. Apple is a company that is now worth over \$2 trillion, but what most people do not know is that Steve Jobs, often referred to as the Father of the Digital Revolution, was dyslexic. Steve Jobs used his dyslexia as a springboard to fine-tune his other abilities that helped him create many of his Apple products, such as iPhone, the iPad and the Apple Mac.

One of the most prominent film directors, producers and screenwriters, who is responsible for films such as Indiana Jones, Jurassic Park and E.T. has also reached the same levels of success as Steve Jobs, working in his industry with dyslexia. Steven Spielberg did not always think he would be successful as he has become, daydreaming his way through school and feeling like he was at a disadvantage due to his dyslexia. Luckily, Steven Spielberg was able to turn his daydreams into the wonders we see on screen today. He not only refused to let his dyslexia slow him down, but he also turned it into his greatest advantage. Steven Spielberg admits that it takes him more than twice as long as most peers in Hollywood to read books and scripts, but he does not feel ashamed that it takes him longer than others. He knows that when it comes to other matters, the way his brain works differently will help him to create more iconic movies, who else could have brought dinosaurs to life in 1937?

Many successful individuals such as Theo Paphitis, Jamie Oliver and Tom Cruise have all used their dyslexia to help them achieve in their professions. By thinking of things in different ways from others, and adopting unique techniques in order for them to get ahead, people with dyslexia can become some of the most well-known people in their industries. Many people believe that those with dyslexia will not be able to succeed in employment as well as any other, but like everyone else, dyslexic or not, once they have found their strengths there is nothing to stop them reaching their full potential.

Theo Paphitis found his strength and reached his full potential, from being labelled as lazy by his teachers in school instead of recognising he was dyslexic and feeling like he had to work so much harder than his peers at school. He often had to find other solutions to complete the tasks set by his teachers because his brain just worked differently to everyone else's. Theo Paphitis credits his desire to problem solve as an ability

that has helped drive him in business, and sees his dyslexia as an advantage. He is a well-known retail tycoon and entrepreneur and credits the way he thinks of things differently due to his dyslexia to him now being worth £290 million.

What we can understand about dyslexia now is that it is not something that will hold you back. If you want something badly enough, it does not matter if you are dyslexic, or how many embarrassing failures you've had along the way. If you're determined and you believe in yourself, anything is possible, just look at the number of people with dyslexia that have risen to the highest levels of their careers. If it wasn't for dyslexia, the world we live in would be completely different. Walt Disney may not have created some of the most iconic films of all time, Henry Ford may not have been as mechanically minded to create the Ford Motor Company and Richard Branson may have lacked the entrepreneurial tendencies needed to create Virgin Records.





MENTAL HEALTH & NEURODIVERSITY

By Mrs Curtis

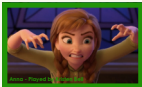
It is easy for us to think that because we are different in some ways that we are lacking in something, but did you know that what makes you different could well be your superpower?

There are so many things that make up a human and this includes what goes on in our brains.

Is Mental Health a Neurodiversity?

Mental health can affect a person's wellbeing and have a big impact on things like self-esteem, motivation and the way you think. The impact of mental health is just the same as the impact conditions such as autism or ADHD can have on a person. Things such as bipolar disorder, depression, anxiety and PTSD can affect the way our brain processes information, the way we react to things and our general mood.

Not everyone with a mental health condition will think of themselves as neurodivergent but there is no clear way to separate neurodiversity and mental health and that is why it is important to think about the two together.



Anna - Played by Jennifer Lee

What does that mean for me?

The purpose of recognising neurodiversity is so that people acknowledge and support everyone whose brain works a little differently. This moves us all forward in making School, Work and Home a place that has an understanding and better supports you to reach your potential. By understanding that brains work differently we are able to create different ways to deliver lessons, provide support that is relevant to you and offer opportunities to you that may support you and your needs.

This means people are less likely to become isolated or feel unsupported.

It is easy to think that mental health, or any other form of neurodiversity is scary or negative. But by recognising the things that make us individual we recognise that what we think are our weaknesses may be our strengths.

It is much healthier to accept that you're unique than to wish you were more like someone else.

And receiving support can help you to become a survivor, not a victim.

What can I achieve?

Mental health has a stigma and many people suffer silently instead of reaching out for support. But recognising that what is happening to you is part of you, asking for help and getting the right support means you can achieve anything you set your mind to.

Your experiences, no matter what they are will shape you into the successful young person you can be.

Recognising your own mental health may mean you are able to recognise it in others and inspire you to pursue a career as a therapist, doctor or nurse.

Finding things that support your mental health like exercise, art or reading may develop into your career as a writer, poet, songwriter, artist, sports coach, Olympian or actor.

Most importantly, getting support and speaking out means you are given the support you need to succeed.

Who might I know that has a mental health condition?

Demi Lovato has Bipolar Disorder. She has been performing since she was in her early teens and as a young adult was diagnosed with bipolar disorder. She has had a successful music career and uses her experiences to shape her music.

Daniel Radcliffe (Harry Potter) developed OCD at 5 years old and sought therapy to help him. Since then he went on to play Harry Potter in 7 films and have a career in acting.

Kristen Bell (Anna from Frozen) has depression and anxiety and is an advocate for mental health. She speaks openly about her mental health to the public so that people know it is ok to not always be ok.

Noah Cyrus struggles with depression and anxiety and this inspired her to create an apparel line to support a non-profit charity that supports emotional health in teenagers.

Eli Ferdinand, football player for Manchester United and England for a number of years suffered with his mental health after losing his wife and is now a huge advocate for speaking out and getting help.

Where do I go next?

You can reach out to your Parents, to an adult in School or a Doctor if you think you need some support with your mental health.

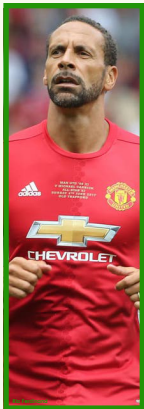
There are also lots of helpful websites such as:

<https://www.mind.org.uk>

<https://www.anxietyuk.org.uk/>

<https://www.headspace.com/>

Remember, what feels like a weakness may actually be your strength.



Eli Ferdinand



PERFECTING POKÉMON

By Miss Squibb

We all know the famous Pikachu, but what about the face behind Pokémon. Satoshi Tajiri is a video game designer from Japan, best known for being the creator of the Pokémon franchise for Nintendo.

In the early 1980s Satoshi Tajiri started a gaming magazine, which saw the first ever Pokémon feature written by Tajiri and illustrated by Sugimori. Later on in 1996, Pokémon made its debut however, when Tajiri first presented his idea to Nintendo, they were not so taken by it but they were given a chance due to the success of the magazine (thank goodness). The games developed and only got better from here on in, with Pokémon becoming the second largest gaming franchise this world has ever seen (Mario was number one in case you were wondering). The gaming franchise is still massive today, even though it was released over 25 years ago!

Satoshi Tajiri today has a net worth of \$10 million, which in itself tells us just how successful his famous Pokémon have made him. It has been recorded that 40 million people play Pokémon Go alone. The Pokémon brand has grown so large throughout Tajiri's career including a trading card game, Pokémon Go, TV series and so much more. Pokémon sees lots of references in TV shows such as The Simpsons, The Big Bang Theory and even other video games such as Minecraft. Across the world are many Pokémon Cafes, shopping stores where you can buy all the merchandise, and if you are ever lucky enough to visit Japan or Taiwan there are Pokémon theme parks.

Without the wonderful Satoshi Tajiri we would not have this fabulous game we know and love. Tajiri not only created a franchise of gaming and cartoons but a network that brings people together.

Tajiri qualifies as a genius thanks to his high IQ and can sometimes work for up to 24 hours straight. One thing you may not know about the man behind Pokémon though is that he is a high functioning autistic. Despite being on the autistic spectrum Tajiri has not once let this hold him back or prevent him from reaching his dreams of creating his own video games. When Tajiri was a young child he had an obsessive hobby of collecting bugs (along with playing A LOT of video games), this is actually where the idea for our famous Pokémon came from. If you did not already know 'Pokémon' translates to 'Pocket Monsters', so Tajiri combined his two favourite hobbies to create Pokémon.

The Pokémon creator's hobby of collecting bugs and playing video games consumed much of his time and attention, as a result he did not attend all lessons and ended up not doing too great in high school. His parents were very concerned for him at the time, as they could not relate to his obsession with bugs or playing video games endlessly. Tajiri's parents thought he was throwing his life away and making all the wrong decisions, oh how wrong they were. Despite growing concerns from his mum and dad, the way in which Tajiri let his autism channel his existing hobbies into a video game ended up changing the world.

Satoshi Tajiri's credits his autism for making him so successful and said himself 'that he wanted the games to give children the same joy he had during his bug collecting'. It is very common that people on the autistic spectrum enjoy some kind of collecting as a hobby; Tajiri has helped all these people out by giving them his personally created game, which allows them to collect something new and exciting. Not only has Tajiri's passion given children (and adults too!) joy but also helped them to make friends and be a real part of communities, especially those on the autistic spectrum. When it comes to the more recent game Pokémon Go, many children were introverts before they started playing the game.

Satoshi Tajiri has certainly made a success for himself (one which he gives thanks to his autism for), but has also helped to make a success of millions of other lives too. Thank you Satoshi. So in conclusion, if anybody ever laughs at your strange collecting hobby just remember a small boy from Japan with a bug obsession and autism went on to not only transform gaming ... but also the world!



Satoshi Tajiri





NEURODIVERSITY IN THE MUSIC INDUSTRY

By Miss King

"Neurodiversity refers to the virtually infinite neuro-cognitive variability within Earth's human population. It points to the fact that every human has a unique nervous system with a unique combination of abilities and needs." (Neurodiversityhub, n.y)

It could be said that neurodiversity amongst professional adults is more common than it may be first thought. The aim of this article is to exemplify and give reference to examples of professional popular musicians, through to CEOs of record labels in the music industry who experience neurodiversity, and how they use these differences to their advantage within their career, and therefore how these techniques can also be implied over a vast area of different career paths.

Looking back over the past 50 years of rock & roll, our creative icons haven't always shown a natural aptitude for skills and/or behaviours traditionally considered obligatory for the school system, or the workplace."

Popular musicians such as Florence Welch from the band Florence and the Machine have previously mentioned their neurodiverse conditions and how they apply their differences to their musical careers.

Welch has previously stated that she was diagnosed with both dyslexia and dyscalculia when she was younger. Welch told Rolling Stone Magazine that because of this, she had to come up with creative ways of thinking to solve tasks that she found to be challenging. For example, Welch struggled to count change in her first job as a barmaid, and therefore, learnt the shape of each coin in her hand, adding a geometric value to it.

It could be suggested that this is a great example of a more creative way of thinking and solving problems may have put Welch at an advantage in her musical career. This is because music is a creative subject that arguably, requires a creative mind, open to endless possibilities. Although it could be argued that music can be closely related to mathematics, rhythm and beat requires using the right side of the human brain – the most creative part.

The fact that I work in a creative industry probably helps. In fact I think in some ways it has helped. We dyspraxics think in a different way.' – Welch

Neurodiversity is not unique within the music industry, as many well-known musicians have shared their neurodiverse differences throughout the years. For example, Solange Knowles, Adam Levine from Maroon 5, will.i.am, and Justin Timberlake are just a few names that have been diagnosed with ADHD. It has been said that ADHD is so common amongst musicians that doctors have even dubbed the genetic strain as 'the rock-star gene'.

As it became clear over the years that there are many musicians and individuals within the music industry who experience neurodiversity, a decision was made by Universal to re-think how they could become more inclusive of these individuals to allow them the chance to become the best version of themselves. For example, the traditional way of interviewing was cut, and instead they would offer interviewees the opportunity of a quiet space and more time, as well as promoting other formats that an interview could be completed in such as video or audio.

"When you start to research this stuff, you find that an estimated 25 percent of CEOs are people with dyslexia – yet the first thing you're expected to do to apply for any job is fill in a form. This isn't about putting [neurodiverse] people ahead of anyone else; it isn't about quotas, tokenistic employment, or ticked boxes; it's about making sure no one [applying for jobs] feels any stigma or the need to hide who they are, because [that] might mean we miss out on 25 percent of future potential leaders of our labels."

This is a promising concept for the future of the music industry, as they have shown to understand the differences and challenges many people face when it comes to the traditional way interviews are conducted.

By re-modelling the method, making it adaptable for the individual, they are opening more doors to allow for creativity and innovation within the industry.

To conclude, this article has given reference to musicians who have used their neurodiversity in a positive way, as it enables them to enhance their career with their own unique creative way of thinking. These unique techniques, can also be utilised in other areas of working life, whether that may be a career within the arts, science, construction, all the way through to education. Overall, neurodiversity should not limit one's self in what they set out to achieve. If anything, neurodiversity should be considered beneficial, as it allows the individual to think more creatively and outside of the box, which arguably, the current climate needs.

Florence Welch





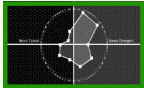
NEURODIVERSITY WITHIN ART: ARTISTS EMBRACING BEING NEURODIVERGENT

By Miss Making

Due to my interest in the art industry, I want to explore the relationship between art and neurodiversity.

The role of art and design within neurodiversity is expected in art education: art and design encourages different ways of looking at and interpreting the world and thinking differently. Therefore it shapes independent thought and opinions.

Art subjects promote abstract and unconventional thought processes when creating works because of these methods. Art education reacts positively to different learning needs because the environment allows you the freedom to be creative and explore different art processes through experimentation. As a result, it welcomes Neuro Divergent, who connect and think differently when processing and interpreting different information compared to Neuro Typical. This broadens their horizons to new possibilities which will help them to succeed.



Art environments strengthen the skills and abilities of neuro divergent individuals, empowering them to have a voice and progress in their personal and professional development within their art practice.

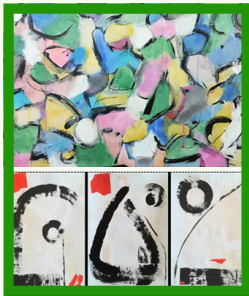
An example of a neuro divergent artist is Stephen Wilshie. As a child he was mute and at age three he was diagnosed with being autistic. However, he communicated through drawing which was his communication and voice. He had the ability to paint and draw cityscapes, landscapes from memory after only seeing it once. He produces, detailed, lifelike drawings from his memory using black ink and paper. He has a photographic memory which allows him to remember cityscapes, the number of floors and windows in buildings. His art process when producing the New York Cityscape was drawing a few sketches of different buildings when flying in a helicopter to see New York City at a birds eye view. This enabled him to draw in detail the New York cityscape incorporating all the buildings he had noticed and was interested in from above.



"Do the best you can and never stop." (Stephen Wilshie)

"Every aspect he sees comes alive on paper. He communicated with the world through drawing, his drawing was a form of speech, and it was his language." (Wilshie's sister)

Another fascinating artist is Mahlia Amalina who creates a narrative through abstraction. To produce her artworks she uses acrylic paint, Indian ink, oil sticks a variety of mixed media on canvas and paper. Her works break traditional boundaries of purpose and form. In 2015, she was diagnosed with Asperger's syndrome. Since then, her art practice has changed. Mahlia wanted to share her unique sensory experiences on the autistic spectrum through her art. Her work now is interactive and is a multi-sensory experience of colour, line, shape and form through textural art. Her artwork explores the creative side of



Neurodiversity. Mahlia encourages viewers to engage with her work on a level that suits the person.

"My hands tell my stories as I connect with humanity and explore meaning

through creativity and art. The Voyage continues." (Mahlia Amalina)

To conclude my findings, the connection between art and neurodiversity seems to have a complimentary dynamic. It can be seen as very important in helping individuals who do interpret and think differently, to

enable them to have communication and connection through art forms. For example, the artists I have looked at are able to express themselves in a unique manner because of art and their art practice. Without having access to this, they may not have been able to develop their talents and make progress, because usually it would be difficult for them to describe vocally. It also brings new methods and platforms of work to the industry which have not yet been discovered. Overall, this will not only provide support for people to express their interpretations, emotions and voice through their art, but also give the opportunity for the arts to welcome new audiences.



CELEBRATING PROFESSIONAL ATHLETES WITH DISABILITIES

By Mr Wye

Can you become a professional athlete if you have a learning difficulty or disability such as ADHD or Tourette's syndrome? The answer is YES and many well-known successful athletes have proved this. You may think that because someone has been diagnosed with Tourette's or ADHD that they cannot compete in high level sports, but this is not the case as this article will show. A surprising number of professional athletes have Attention Deficit Hyperactivity Disorder (ADHD). In fact, an estimated eight to ten percent of all professional athletes have the condition, as compared to four to five percent of the general population of adults.

Attention Deficit Hyperactivity Disorder (ADHD) is a common neurodevelopmental disorder that affects the child and adolescent population. It is characterised by impairment in attention/concentration, hyperactivity, and impulsivity, all of which can impact performance of athletes. Both of these disabilities are very common, yet many professional athletes do not promote their disabilities.

Have you dreamt of playing for your favourite football team? Or becoming an Olympic athlete? But think you can't because you have a learning difficulty. Do not let this hold you back, what if I told you that you even with ADHD you could become an Olympic athlete and have a decorated career winning a total of 28 medals and hold the all-time record for Olympic gold medals? 237 Michael Phelps did all of this. Michael Phelps did not let being diagnosed with ADHD as a child stop him from becoming a legend in Olympic swimming.

What about becoming a Premier League footballer for one of the world's biggest clubs. That's what American goalkeeper Tim Howard did, whilst having Tourette's syndrome Tim Howard won many English trophies including the FA cup and the League cup, as well as competing in the World Cup with the USA. Experienced by approximately 0.5% of the UK population, Tourette's is classified as a neurological disorder and is characterised by repetitive involuntary movements and vocalisations, referred to as tics (e.g. blinking, throat-clearing). Tourette's typically emerges during childhood and is more common in males.

Sporting activities are known to help increase neurotransmitters in the brain. That increase can help to reduce ADHD symptoms for a short period of time for the person. Regular exercise and activity can increase the amount of time a person experiences an improvement in symptoms, including an increased ability to pay attention, to stay on task, and reduced impulsiveness. It can also improve sleep quality, which can help reduce symptoms during the day. For the athlete, practising the skills needed for the sport or activity can also benefit in other areas of daily life.

Participating in sport is increasingly being recommended as a helpful management for children and young people with learning difficulties. There is a growing evidence base that shows physical exercise is associated with improvements in functioning for conditions such as Attention Deficit Hyperactivity Disorder (ADHD). There is also evidence that physical exercise reduces tic severity in the short term.

People with Autism are far more likely to miss out on sporting opportunities due to their 'hidden' differences. These can be an accumulation of anxiety in social situations, sensory challenges as well as difficulties in interpreting and understanding body language, verbal and non-verbal communication and other social cues. It is useful to note that regular exercise has many benefits and again has been shown to decrease self-stimulatory behaviours such as hyperactivity, self-destructiveness and aggression, as well as the additional benefits of improving social skill through relationship building with teammates, listening skills and attention span.

You can do anything when you put your mind to it. Michael Phelps has shown that even with ADHD you can become one of the best athletes in the world, if you

work hard enough. Even if you don't want to be the next Michael Phelps, sport is a great way to learn new skills, make new friends and may help people with ADHD or Tourette's. Some of the greatest people in the world have ADHD and have become successful.

Michael Phelps Celebrates





BENEFITS OF MUSIC THERAPY FOR THE NEURODIVERSE

By Mr Daniels

How did you learn your alphabet? Did you sing it? Do certain songs evoke memories of a time or place in your past?

Music is a joyful gift to our sensory systems and can also be a powerful tool to help improve the physical and cognitive hardships faced by those in the neurodiverse community, such as individuals with Autism Spectrum Disorders, Down Syndrome and Cerebral Palsy.

Evidence-based research shows that music can be an incredibly effective therapeutic and educational medium for young children and individuals who have motor, speech, and cognition challenges.

Music can also be an effective and enjoyable way to enhance the education and development of children with special needs. There is a wide range of songs and activities that encourage communication, increase self-esteem, stimulate fine and gross motor skills and motor coordination, and promote relaxation. Music therapists are accomplishing wonderful outcomes in their work with those who have neurodiversity.

So how do we use music to help these skills? Let's look at some examples...

Many individuals who have neurodiversity's experience inequalities in their walking step; steady rhythmic music is a great accompaniment to use with

step exercises for various challenges including autism, Cerebral Palsy, and others.

Rhythm is a wonderful tool to help facilitate motor movement since rhythm already exists internally in the body's heartbeat. The body will tend to automatically move to a beat; typically, young children will have a "functional tempo" in their bodies of 120 to 132 beats per minute, whereas adults will move slower, of 92 to 100 beats per minute.

For example, to assist a step exercise, you can choose a piece of music favoured by the individual that also has the right "beats per minute" count to match their functional tempo. For example, a child with autism who walks with a kinetic stutter might enjoy keeping pace to a children's tune played at a lively tempo.

Music can also create interesting melodic patterns designed to mirror other kinetic movements. A child with autism who has the self-stimulating behaviour of flapping the hands tends to only use the forearms on down, rather than developing the important large muscle groups between the shoulder and the elbow.

In order to help the child with an exercise to build these muscles, we can create a musical pattern as follows... The child slowly reaches up and overhead as the musical notes ascend, wiggles the fingers for a few seconds, and then slowly lowers the hands back down as the music descends. The entire pattern then repeats.

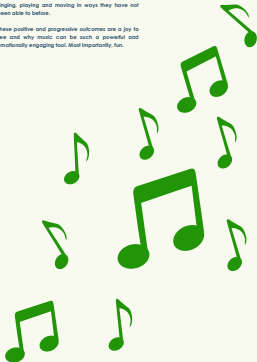
Instead of wiggling the fingers, a small percussive instrument like a drum or small set of chimes could be used to create a target for the child to reach for as he strikes it with his hand or a mallet, making the exercise more fun and engaging.

For those experiencing speech and language problems, rhythmic singing can provide pathways to sidestep damaged neural networks. This is possible because music is received by both hemispheres in the brain and can be incorporated into therapy for challenges such as stuttering, or even getting a nonverbal child to utter their first syllable. For example, a nonverbal child might try to hum or sing (possibly "la la") on two notes of a song they enjoy listening to.

From the examples, this brings me to my personal experiences within Music Therapy. Throughout my time studying and teaching music, I have seen the influence

of music in enticing children to interact even though interaction is difficult for them. To sing or vocalize when they are unwilling or cannot speak. To reach out to play an instrument when it is challenging for them. To move their arms or hands and to express themselves through singing, playing and moving in ways they have not been able to before.

These positive and progressive outcomes are a joy to see and why music can be such a powerful and emotionally engaging tool. Most importantly, fun.





CELEBRATING ADHD

By Mrs Jones

Let us celebrate Attention Deficit Hyperactivity Condition, also known as ADHD. I have always been quite fascinated with ADHD. I have known friends with this condition to be the most creative and passionate of people. They always seem to think outside of the box, coming up with the best ideas and are always so adventurous and outgoing. I decided it would be a great idea to find out which famous, well known celebrities that gloss the front covers of our magazines and newspapers have ADHD. It is brilliant that groups of very successful people have made their diagnosis of ADHD work to their advantage. It is well known that people with ADHD have certain unique strengths. This is a result of their brain functioning differently. They have a certain set of skills that many people, myself included would be envious of. These skills come a lot more easily to an ADHD brain. For instance, those with ADHD have strong skills in: spontaneity, creativity, energy, intuitiveness, imagination and their strong ability to invent things. They have a wonderful ability to zone in and focus on subjects they find interesting. A focus that is far superior to their neurotypical counterparts.

As I have already mentioned, they are known for being creative, "outside the box thinkers". They can usually achieve more and work harder and faster than others. The condition that many people thought would define them in a less than positive way actually does the complete opposite. Whilst it is documented that some people with ADHD often do struggle to maintain concentration it can offer them the ability to hyper focus, allowing them to be extremely productive in the right environment.

I now want to take a look at some well known figures that have a diagnosis of ADHD who have all had great successful careers.



Justin Timberlake

Former member of the amazing (personal opinion) boy band N'SYNC. He has been quoted as saying that singing was his way of channelling his ADHD.



Michael Phelps

This one I found very interesting. I am a huge swimming fan and I never knew the hugely successful Olympic swimmer had ADHD. Michael was diagnosed in 4th

grade. His mother proceeded to work really closely with the school to make sure he always had the right resources in place for when he needed them. It is thought that his ADHD in fact, allowed him to focus on his swimming task, helping to maintain precision and determination.



Bill Gates

He is estimated to have a net worth of around \$92 billion, creator and founder of Microsoft. He has in the past admitted that he struggled learning new things. However, along with his Microsoft Empire he also focuses his on his philanthropy work with the Bill and Melinda Gates Foundation.



Richard Branson

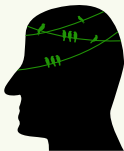
One of our most successful and admired entrepreneur's is another celebrity who has ADHD. I found it quite interesting that as I was doing the research for this piece I came across an article that stated ADHD as an entrepreneur's superpower! It claims that it is not just a coincidence that Sir Richard Branson, Rea founder Inger Kampstad and Jet Blue founder David Neeleman all have ADHD.

A lot of people actually claim they are successful because of their condition and not in spite of it. I think it is great that a lot of high-profile figures share their stories of ADHD and how by publicly embracing it they are actually inspiring a lot of young people to follow in their footsteps. Many successful people have overcome many childhood challenges and channelled them into thriving careers in sports, science, entertainment, business and even politics.

There really are so many positives associated with ADHD and it is so important that we celebrate it and help people see their differences as assets to succeed.

I feel it is also worth mentioning that people with ADHD actually tend to thrive in times of crisis, those in prehistoric times with this condition would be the ones looking for new hunting ground and water supplies as village life would make them fairly restless. The ADHD gene is associated with the name "the explorer gene".

So, let's celebrate Attention Deficit Hyperactivity Condition with the same adventurous spirit it deserves. If it is good enough for Albert Einstein (who is also thought to of had it) then it really is something we should celebrate and embrace. It is exciting to think of the next big entrepreneur out there right now planning how they will succeed and using all of their ADHD super skills to make it happen!





SUGGESTED READING

By Miss Geary



The Spectrum Girl's Survival Guide: How to grow up awesome and autistic - Siena Castellon

"Never be ashamed of being different: it is this difference that makes you extraordinary and unique."

This essential go-to guide gives you all the advice and tools you'll need to help you flourish and achieve what you want in life, from the answers to everyday questions such as 'Am I using appropriate body language?' and 'Did I say the wrong thing?', through to discussing the importance of understanding your emotions, looking after your physical and mental health and coping with anxiety and sensory overload, award-winning neurodiversity campaigner Siena Castellon uses her own experiences to provide you with the skills to overcome any challenge.

With practical tips on friendships, dating, body image, consent and appearance, as well as how to survive school and bullying, The Spectrum Girl's Survival Guide gives you the power to embrace who you are, reminding you that even during the toughest of teen moments, you are never alone.



The Goldfish Boy - Lisa Thompson

Twelve-year-old Matthew is trapped in his bedroom by crippling OCD, spending most of his time staring out of his window at the inhabitants of Chestnut Close go about their business.

That is, until the day he is the last person to see his next-door neighbour's toddler, Teddy, before he goes missing.

Now Matthew must find defective and unravel the mystery of Teddy's disappearance – with a little help from a surprising and brilliant cast of supporting characters.

Full of heart and a genuine and honest confrontation of some of the ways in which life can be hard to handle, this is a story about the courage it takes to face your fears and learn to live with them. Page-turning and heart-breaking, but ultimately life-affirming, this story is perfect for fans of The Curious Incident of the Dog in the Night Time and Wonder.



Underdogs - Chris Bonello

One million cloned soldiers. A nation imprisoned. A group of neurodiverse rebels fighting back.

Britain as we know it lies destroyed. In the aftermath of the most daring military coup in history, the surviving population is crammed inside giant Citadels, watched over by an army of cloned soldiers. The hope of a nation lies in a tiny number of freedom fighters hidden in the abandoned countryside – most of whom are teenagers who escaped the attack on their special school.

Seen by many as no more than misfits and 'problem children', this band of fighters could never have imagined the responsibility that now rests on their shoulders. But perhaps this war needs a different kind of hero. After a lifetime of being defined by their weaknesses, the teenagers must learn how to play to their strengths, and become the best they can be in a world that has never been on their side.



The Ten Riddles of Eartha Quicksmith - Loris Owen

Chess club stalwart Kip finds his way into a parallel plane, where kids like him attend an elite boarding school. Extraordinary eccentrics are the norm, surfing around on air-boards called "skimmis". Leaving his dad behind is hard, and leaving his mum in the care home harder – but worth it, if Kip can find a cure for her suffering the after-effects of a lightning strike. But soon, Kip and pals are called upon to safeguard their new haven against sinister forces.

A Kind of Spark - Elle McNicoll

Addie's class are told they have a fun 'new project to study in the run-up to Halloween. As the teacher recounts how 16th century women were accused of witchcraft for reasons as innocuous as being left-handed, 11 year old Addie is left stunned. She's horrified that innocent people, including women from her own area, were persecuted, executed, then forgotten by society. The revelation leaves her determined to lobby for a local memorial in her small Scottish village.

Oppression of those with perceived 'differences' is of course not confined to the history books. And Addie, who is autistic, experiences this at first hand and in various forms, both at school and in the local community. But we soon see that she is not one to sit back and accept injustice – and with support from a new girl at school – she fights valiantly for what she knows is right.



