Autistic spectrum, captions and audio description¹

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Abstract

This article discusses how audio description intended for people who are blind or visually impaired and captions intended for people who are deaf or hard of hearing can support people with other access needs particularly autism.

keywords: Autistic spectrum, captions, audio description, access needs, television

¹ A previous version of this paper was published on http://mindfulresearch.co.uk/2011/08/29/autistic-spectrum-captions-and-audio-description/
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Introduction

You may be thinking what have captions and audio description (AD) got to do with autistic spectrum. Aren’t captions for D/deaf and hard of hearing people and audio description for visually impaired people? In this last couple of years research I’ve conducted has revealed that audio description and captions can be of benefit and are used by people on the autistic spectrum.

Many of the arguments for a more accessible environment either physical or digital start off with arguments like ‘ramps for wheelchair users are helpful for prams or baby buggies’. Captions and audio description are a metaphorical ramp and provide a different kind of value to people on the autistic spectrum. There is nothing new in the repurposing of technology, every developer has stories on how users repurposed their design.

What is autistic spectrum?

I am going to avoid any medical diagnoses here as I am looking at this from a user experience perspective. I am strongly influenced by the social model of disability which focuses on what people can do rather than what they can’t do and neurodiversity which interprets autistic spectrum not as something separate or faulty but as part of the range of human behaviour. I will look at how being on the autistic spectrum affects peoples interaction and engagement. Typically people on the autistic spectrum, which also includes Aspergers struggle with understanding human emotions and engagement.

So for example they:

- May not understand sarcasm or certain forms of humour.
- May struggle to understand non-verbal communications such as reading the emotion on another persons face and the inferences of body language.
- May not know if someone is angry, sad, disappointed or entertained?
- May have difficulty recognising different faces and identifying people.
- May struggle with audio processing for example understanding people talking very quickly or several people talking at the same time perhaps with background noise.

Another feature of autistic spectrum is an intense focus on a small area of interest, the technical term for this is Monotropism.
What Monotropism means is that somebody on the autistic spectrum focuses in great detail on one or two things rather than looking at everything broadly. This means that any subject area is looked at in great detail and every detail of something must be understood or all the information may be invalidated. In one interview I conducted with a person on the autistic spectrum I was told that every link on a web page had to be followed. That is every reference and every hyperlink. That makes it very time consuming to look at everything and if any of the information conflicts with the individuals own mental model then its all invalidated.

Monotropism can actually be of great benefit in some environments where you need precision, detail and great accuracy. Any multi-disciplinary team can benefit from an autistic spectrum member ensuring that all the details are right.

The autistic spectrum includes a very wide range of people from those who are non-verbal to people with high functioning autism and Aspergers who have an above average IQ and may excel in their own field.

Why do captions and audio description help?

So looking at these two aspects of the autistic spectrum

Understanding human emotion and engagement

Monotropism

What is it that captions and audio description provide?

Audio description was originally designed for people who are visually impaired. It meets their needs by providing information that is purely visual into an audio format and is used for television, theatre and cinema. So for example if you were watching Eastenders and Phil Mitchell came into the room angrily the audio description might be ‘Phil walked into the room looking angry’. Where this helps someone on the autistic spectrum is it identifies the emotion which may be difficult for them to pin down and it also provides another input track to reinforce the information. If the person is struggling to identify the different people in the scene, audio description names the person so the visuals and the audio help create a complete picture.

Captions again provide a reinforcement of what is going on visually and what is being said. Captions should identify the speaker and what’s being said, identify other sounds, birds singing, car tyres screeching etc and song
lyrics. For somebody who is on the autistic spectrum it gives a greater depth of understanding and context by providing a second input stream. People on the autistic spectrum may struggle with audio processing, that is filtering out different sounds and distinguishing between what’s relevant and what is not relevant. If there is an audio overload with lots of different sounds because of the audio processing issues some people on the autistic spectrum have, all or most of the audio could be rendered totally meaningless and captions provide a backup for when this occurs.

It is now acknowledged that television has a lot more ambient noise issues than in the past. This means we will all miss words from time to time regardless of whether we are D/deaf or hard of hearing. As well as the audio processing problems created by additional noise, missing words for someone who is on the autistic spectrum may be critical if they have a need for complete information, the subtitles help fill in the gaps so from several different streams a complete picture is provided.

Providing additional viewing support through audio description and captions allows people on the autistic spectrum to watch television without asking family and friends, ‘What does that mean?’; ‘Who’s that?’ and ‘Why did that happen?’.

Where did I come across this

I first came across this behaviour when user testing IPTV (Television services) for the BBC in 2010 with participants on the autistic spectrum.

Who else can audio description and captioning help.

In further television platform testing with the BBC in 2011 I also came across a participant with ADHD who found audio description massively helpful and a participant with Dyslexia who used captions to help her improve her spelling.

So what does this tell us about access? Probably that there is a much bigger community that can benefit from audio description and captions than just Blind and D/deaf people.

Heated debates

There are lots of heated debates particularly about captioning. In the UK we are very lucky that the BBC caption 100% of UK broadcast programmes and the other UK broadcasters are catching up. On the web it’s a different story
with a lot of video material not being captioned. Audio description is still a rarer entity. Now we can say there is a whole group of people who these features may support. It’s unclear exactly how many people there are in the UK on the autistic spectrum including Aspergers but estimates suggest over 1% of children have the condition and children grow into adults. Screening of children in schools is far more sophisticated than it was twenty, thirty or fifty years ago. What this may mean is there are a lot of people who have never been diagnosed and never will be diagnosed.

In closing

I have come across this behaviour in small qualitative studies so I don’t have big numbers to share but I felt this was a very interesting finding that deserved to be shared. Particular thanks to the BBC for commissioning these research projects with autistic spectrum participants and to Jamie Knight and Lion for reviewing and advising on this post. I hope more researchers will back up this research and we can caption an audio describe the world. I would appreciate any feedback.

References


Neurodiversity: http://mikestanton.wordpress.com/my-autism-pages/what-is-neurodiversity/


Jamie Knight and Lion:http://pluslion.com/

Accessibility