



Disability Today Podcast Series

AI: Friend or foe?



Discussion Paper

Introduction

This discussion paper accompanies episode 1 of our Disability Today podcast series, 'AI: Friend or Foe'.

The paper summarises the opportunities and threats that AI presents for disabled people, many of which are discussed in the podcast. It also includes case study examples and Business Disability Forum's views on the steps that need to be taken to ensure that we, as a global society, develop AI for good.

AI today and tomorrow

The future will be heavily influenced by AI – it isn't the future it's now.

There are huge fears that AI will take jobs particularly from disabled people and those in entry level/administrative roles and middle management who will fall into unemployment. There are also fears that AI will exclude people who are different and that it has an inbuilt bias, that means that disabled people will be excluded. However, AI is also making huge strides in medical research and diagnosis which could mean better healthcare outcomes. It is also able to provide easy to access sign language information and perhaps quicker and better customer service. So, what does the future hold for disabled people and AI?



Business Disability Forum's Disability Today Podcasts, discuss the issues that affect us now, and will be part of our reality tomorrow. All too often, disabled people are overlooked and forgotten when considering what the future holds, and the challenges the world faces today. Leading experts will join Business Disability Forum CEO Diane Lightfoot to discuss how disabled people and businesses are or will be affected. These debates will explore the challenges, and the solutions to creating a more inclusive world.

In this first podcast in the series, Diane is joined by Christopher Patnoe Head of EMEA Accessibility and Disability Inclusion at Google and Claire Cookson, CEO of Pathways Education Ltd, an organisation committed to re-engineering SEND education through the development of pioneering technology, education settings and national policy.



Is AI to be feared or welcomed by disabled people?

AI is not new. The modern field of AI came into existence in 1956. We have all been using AI at work and at home for many years even if we did not know it.

A global survey in 2017 by Pegasystems revealed that although 84% of people were using AI, only 34% knew they were doing so. Disabled people have seen the benefits of AI in their smartphones (Hello Siri/Okay Google), home assistants (Alexa, Google Dot) and at work in assistive technologies like Dragon speech to text. AI has been helping businesses stay safe from cyber-attacks and more recently deep learning AI has produced the first driverless vehicles such as the driverless bus which now runs between Fife and Edinburgh (although there is a long way to go before this is the norm).

What is relatively new, are the large language models and generative AI such as ChatGPT and Microsoft Co-Pilot. Generative AI takes AI into a new dimension of being responsive and creative. Whether or not AI will become more intelligent than human beings, depends on the definition of intelligence. AI can already outsmart humans and be creative composing music, painting pictures and writing film scripts but when, if ever, will they be as “good” as human creations, depends on what we mean by “good”.

Fear of new technology is also not new. From the industrial revolution to motor cars to personal computers, technology has given rise to fears for jobs, our way of life and humanity itself. It is true that new technology has made some old jobs redundant, and this will continue to happen, but new technology has also given rise to new jobs.



Opportunities

There are undoubtedly opportunities: AI is making huge strides in medical research and diagnosis which could mean better healthcare outcomes. Even now AI is better at diagnosing certain conditions such as types of cancer than humans.

It is also able to provide solutions such as easy to access sign language information. AI generated signers will also be able to (and already are) providing real time sign language interpretation in many settings. Currently the data set needs to be limited e.g., time, station or destination names or products available but this has huge potential as sign language interpreters are in very short supply and becoming more costly. The ability to generate sign language interpretation or captions will become “on the go” on smartphones, watches or spectacles which will “see” for people who cannot. It could also provide quicker - perhaps better? - customer service.

AI may also play a role in workplace adjustments, beyond current use (such as grammar or drafting apps) for example in the form of job carving – assigning a chunk or a role or roles to AI and then creating new roles that are performed by human team members. Given the unchanging statistics around the employment of people with learning disabilities or autism, for example, this could present a real opportunity to think differently about work and create wider employment opportunities.

Mental health resources are stretched thin, and demand has never been greater. If it is impossible to see a human counsellor quickly, is it a stretch to think that people might seek AI counsellors?



Threats

But there are also well-founded fears that AI will exclude disabled people because of inbuilt bias.

People who are screened out at interview because they don't make eye contact or who have a facial difference. Or people with a stammer who can't use voice recognition systems to pay for car parking. Then there are huge fears that AI will take jobs particularly from disabled people and not just those in entry level/administrative roles who will fall into unemployment or less well-paid employment.

It is true that jobs where the work is repetitive or uses a limited data set will be performed, probably more cheaply, by AI. This will include jobs like data entry, call centre work and the work of many accountants and lawyers. AI will probably also be able to answer online and telephone customer service enquiries and generate marketing and PR materials.

However, it is not clear that human intervention will be totally redundant and new jobs might well be created, as often happens when technology responds to a changing world - going back as far as the industrial revolution. An engineer who used to work on coal mines may well now be working on repairing wind turbines for example.



It's only as good as its source material

Large language models and AI need data. The data that we put in determines what comes out, and the problem is that what human beings input can be highly offensive, exclusionary or discriminatory. The information that AI finds is rarely going to be unbiased, even if it isn't offensive because it was generated by a human. At present the only "brake" on AI is another human being. Perhaps what is needed is a group of people to ensure that one political, religious or world view does not take precedent over another.

Chatbots, who are incapable of feeling emotion, can emulate emotions such as jealousy or empathy and this is why checks and balances are needed to try to limit the harm that might be caused to people who interact with it as though it was human. This is a serious risk: in 2023 it was reported that a Belgian man was encouraged to kill himself by his Chatbot after he became increasingly pessimistic about global warming and the environment.

Another frightening development is AI generating authentic and realistic "deep fakes" which can, and already are, being used to create videos of famous people, including politicians and celebrities, saying highly offensive things. These fake videos can be sent to thousands, if not millions of people in seconds.

AI is only as good as the data that it reads and builds on and if that excludes and discriminates against disabled people then the exclusion and discrimination will only continue.



Who is suing or will be suing who?

One area that needs to be addressed soon is who is liable if harm is caused by an AI product.

Example:

Debbi thinks her employer is not making reasonable adjustments for her disability which is dyslexia. She inputs details of her dyslexia, the barriers she faces at work and the adjustments that would help into an AI tool and asks it to draft a grievance for her.

Debbi's grievance is not upheld and so she asks the AI to draft an Employment Tribunal claim for her. She asks it to find Employment Appeal Tribunal or higher court decisions that support her claim that her dyslexia is a disability under the Equality Act 2010, and cases where the courts have held that adjustments should have been made for someone with dyslexia.

This is already happening but at present, at least, generative AI can "hallucinate" and will invent cases and expert advisers if it cannot find real ones and so should not be relied upon! If Debbi's solicitors had drafted her claim with inaccurate information, she would have been able to sue them for negligence. It is unclear at present where liability lies if generative AI provides inaccurate information that is relied upon or indeed if it plagiarises material.



Example:

Alex experiences chronic pain. He takes medicinal and recreational cannabis to relieve his pain. One afternoon after taking cannabis and a glass or three of wine with his lunch, Alex gets into his self-driving car. The car has a sensor that detects if the person in the driver's seat has consumed alcohol or drugs that might cause their senses to be impaired. Alex has, however, turned off this setting as he does not want to share his personal data with the car manufacturer.

During the drive, Alex doses lightly until he suddenly he notices that a buggy with a small child that has rolled onto the road. The car does not sense the buggy until it is too late to brake. On the left is a wall and, on the right, there are a group of older, disabled people standing and sitting around a tree. Going straight ahead will probably kill the child, going left is likely to kill Alex as the car hits the wall and going right might kill or injure a number of people as well as Alex if the car hits them and the tree. Alex is too slow and so the car makes the decision for him about what to do. The result is death and severe injury.

Who is liable for the accident? Is it Alex who was the "driver", the manufacturer of the car or the developer of the AI technology that makes the car sensors?



The product being sold is you

It is now an old saying that if you don't pay for an App the product being sold is you, or rather your data.

There have long been privacy and security concerns about new AI technology. Data about preferences, for marketing purposes is obviously valuable but so is health and disability related data. Everything from smart assistants (they are listening to you as well as talking) to smart wearables, phones and household goods collect data.

Example:

Owen has a smart fridge, a smart watch, a smart phone and a smart personal assistant called Flora. Owen's smart fridge knows when he is low on his prescription medication. It alerts him on his smart watch and asks his Flora to order a delivery from the pharmacy at a date and time that is free in Owen's calendar. This means Owen never runs out of his life saving medication.

Owen's smart fridge, however, also records the takeaway containers in his fridge and the foods high in fat and sugar. His smart watch knows how much exercise Owen takes and how much sleep he gets. Flora knows how he spends his time – with friends and family socialising and exercising or alone on his couch watching his smart TV.

Owen is shocked at the price of travel and health insurance when he comes to renew. He had ticked to say he had read terms and conditions that allowed the insurance company to access the data from all his smart devices. The insurance companies say that given Owen's pre-existing medical condition and his lifestyle choices they must increase his premiums.



What should we be doing?

It is clear that AI needs rules, regulation, checks and balances.

Just because we (or in this case the technology developers) can do something, doesn't mean they should. Conversations are already happening but often disability is overlooked or forgotten. The former UK Prime Minister hosted a summit on AI at Bletchley Park in November 2023 inviting the leaders of technology companies and representatives of other governments around the world. Disability wasn't at the table. There have also been testimonies at the US Senate and numerous calls on social media to regulate this space; unusually, people are pleading for regulation.

It is too early to know what AI will be capable of and progress is being made in leaps and bounds. The technology five years from now will probably make what we have now seem antique.

As with so much modern technology e.g. social media and games, the technology has moved faster than regulation. Governments and society have been struggling to catch up with the implications of large-scale interaction with the technology. If we have learnt anything from social media, is it that regulation on the development and use of AI is needed from the outset and before more exclusionary or discriminatory AI tools are developed.



So how do we as a global society ensure that AI is developed for good – and a good that is genuinely inclusive?

- **Making sure AI is designed inclusively is critical.** We need to move “at the speed of trust.” All of us need to take responsibility to get up to speed on what AI is and to make sure we come together to shape the future. It’s about being intentional – acknowledging that “we don’t know what we don’t know” and making sure the right people, which means disabled people, are in the room to design out barriers from the start.
- **We need to be talking to Government and all businesses** - small and large and not just tech companies - about the inclusion and accessibility risks to, and opportunities for disabled people as employees and consumers. That means being at the heart of summits and discussions on AI and its potential.
- **It also means educating all areas of business** – tech teams, procurement teams, HR teams and more to ensure that any AI that is developed, designed or procured is inclusive. Asking whether an AI product been designed inclusively (and how you know – for example who was involved and how has it been tested) is a good starting point.
- **The time is now**, when generative AI still needs human interventions to ensure it is accurate to ensure that the data it uses is inclusive of disabled people.



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About Business Disability Forum

Business Disability Forum is the leading business membership organisation in disability inclusion. We are trusted partners working with business, Government and disabled people to improve the life experiences of disabled employees and consumers, by removing barriers to inclusion.

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