



# Disabled People's Rights in an Artificial Intelligence World



The Solution Series



**Inclusion  
Scotland**

Disabled People's Organisation

**Our voices ■ Our choices**

[www.inclusionscotland.org](http://www.inclusionscotland.org)

# Contents

<b>The Solutions Series</b>	Page 3
<b>What is Artificial Intelligence?</b>	Page 4
<b>Disabled people’s rights in an Artificial Intelligence World</b>	Page 5
<b>Digital literacy and exclusion Solutions</b>	Page 7 Page 9
<b>Trust Solutions</b>	Page 10 Page 11
<b>Regulation Solutions</b>	Page 12 Page 13
<b>Equality Impact Assessments (EQIAs) Solutions</b>	Page 14 Page 14
<b>Leadership for training Solutions</b>	Page 15 Page 15
<b>Conclusion</b>	Page 16
<b>About Inclusion Scotland / Contact us</b>	Page 17



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## The Solutions Series

**The Solutions Series think tanks are hosted by Inclusion Scotland and focus on an area of concern for disabled people. They bring together disabled people and their Disabled People's Organisations with others who have specific expertise in that area to identify the barriers and solutions to disabled people's enjoyment of their human rights.**

The Solutions Series is an opportunity to explore practical solutions for disabled people, and for policymakers, regulators, sectoral leaders, and academics in that area. The think tanks foster dialogue and relationships so that we can engage with each other, in this case about new technologies and disability inclusion.

This report brings together work that Inclusion Scotland has done on the issue, including desk research, a round table discussion with civil society organisations, and a think tank discussion with academics, stakeholders, and disabled people. It sets out some of the challenges and opportunities that Artificial Intelligence (AI) presents to disabled people and their rights, and potential solutions to ensure disabled people's rights are protected and progressed. These are not the extent of all the solutions needed – and as AI continues to develop and entrench widely, more will always be needed - but taken in tandem with the wider discussion captured in this report, could encourage more and deeper solutions for action. The background briefing for the think tank is available at [www.inclusionScotland.org](http://www.inclusionScotland.org) and contains more information.

Inclusion Scotland is not an expert on AI. We are a Disabled People's Organisation run by disabled people for disabled people. Disabled people are the experts in the challenges that disabled people face daily and what needs to change.

We would like to thank all who made this work possible by taking part in our round table discussions, for sharing your knowledge and expertise, and for learning about the barriers and benefits that AI presents for disabled people.

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# What is Artificial Intelligence?

AI is a rapidly evolving and complex technology or set of technologies. It can work in many of the same ways as humans but with the intention of being faster and more reliable. For example, it can analyse large sets of data quickly and consistently from a wide range of sources. The technology takes instruction and can learn more as it performs its task.

**The Scottish AI Strategy<sup>1</sup> defines it as:**

‘Technologies used to allow computers to perform tasks that would otherwise require human intelligence, such as visual perception, speech recognition, and language translation.’

**Expanding on this, ChatGPT (a prominent AI programme), when asked defines it as<sup>2</sup>:**

‘...machines or computer programs that mimic human intelligence, learning from data and adapting to perform tasks autonomously. It encompasses various techniques like machine learning and deep learning, enabling applications such as problem solving, speech recognition, and decision-making.’

Neither of these descriptions entirely capture the entirety of AI technology. Nonetheless, AI driven technologies are being deployed by both public and private sectors in numerous ways, and across many domains and it is reaching all spheres of life. It has even been described as humanity’s biggest challenge<sup>3</sup>.

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<sup>1</sup> Scotland’s Artificial Intelligence Strategy

<sup>2</sup> Definition from asking ChatGPT ‘What is Artificial Intelligence?’

<sup>3</sup> See Henry A. Kissinger, Eric Schmidt and Daniel Huttenlocher, *The Age of AI and our Human Future* (London, John Murray Press, 2021); and Sue Halpern, “The human costs of AI”, *New York Review of Books*, 21 October

# Disabled people's rights in an Artificial Intelligence World

**Artificial Intelligence is already beginning to fundamentally change daily life for disabled people and the impact of change will only accelerate in the years ahead.**

It presents opportunities to disabled people that can help to progress rights to work, study, transport, and in other areas. These include things like transcription tools, where written transcripts of verbal work meetings or classes can be produced in real time or helping to organise work and performing a range of 'assistant' functions such as calendar management.

It also presents challenges including that the World Health Organisation estimates that more than 2.5 billion disabled people will need one or more assistive technologies in 2030. Yet almost a billion of them cannot access these products<sup>4</sup>.

Developments in AI receive wide attention from the media and policymakers but much of that attention focuses on things like its potential to support economic growth. For example, in the workplace, efficiency via automation of jobs has been the focus rather than how it can support disabled people in employment<sup>5</sup>. Less thought is given to assessing the sum of the challenges and potential opportunities and how to achieve these so that disabled people are not further marginalised but are supported to be full and equal citizens.

There is a sharp contrast between the benefits of AI at an individual level e.g. cochlear implants for deaf people, and the risks at the societal level including around things like trust in AI, and data protection. Disabled people are concerned about the increasing use of AI in the public services they rely on, for instance where it is used to detect alleged social security fraud. Given these technologies are programmed and 'taught' by humans, they are susceptible to the biases and discriminatory beliefs that humans have.

Regulation and governance of AI, and public and organisational awareness of this, have not kept pace with AI's rapid development and rollout. In March 2023, the UK Government launched a consultation on its White Paper, offering what is termed a 'pro-innovation' approach. The Equality and Human Rights Commission, in its role to enforce the Equality Act 2010, has commented, saying that the proposals are 'inadequate.'



## Disabled people's rights in an Artificial Intelligence World *(Continued)*

A presentation delivered to the United Nations General Assembly investigated the intersection of AI and the rights of disabled people. It acknowledged that when harnessed appropriately and ethically, AI has the capacity to significantly promote the realisation of human rights for disabled people.

Digital Scotland's Scottish AI Strategy (2021) sets out the high-level Principles for AI in Scotland (summary below from the Scottish AI Register) -

- > AI should benefit all people and the planet.
- > AI systems should respect the rule of law, human rights, democratic values, and diversity.
- > There should be transparency and responsible disclosure around AI systems.
- > AI systems must be robust, secure, and safe.
- > Organisations and individuals developing, deploying, or operating AI systems should be held accountable for their proper functioning.

The ambition for these principles to be met will depend on the co-production and buy in from all society including disabled people. General Comment No. 7 of the United Nations Convention on the Rights of Persons with Disabilities<sup>6</sup> sets out that disabled people and their representative organisations must be 'closely consulted and actively involved' in the decision making processes that impact upon them.

The need for meaningful participation of disabled people with regards to many aspects of AI is at the foundation of all the themes presented in this Solution Series report.

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4 Forbes - Empowering Individuals With Disabilities Through AI Technology

5 UN - Humanity should get the best from AI, not the worst - UN disability rights expert

6 UN - Convention on the Rights of Persons with Disabilities - Comment No. 7

7 UNESCO

## Digital literacy and exclusion

**Digital Literacy is the ‘ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies’.**<sup>7</sup>

The impact of Digital literacy for disabled people is two-fold: the digital exclusion divide whereby disabled people are impacted more than the general population because they cannot access potentially helpful AI tools, and the general ignorance and fear of service providers towards the use of AI tools which might otherwise support disabled people.

Glasgow Disability Alliance (GDA) reported that disabled people are more likely than non disabled people to face digital exclusion<sup>8</sup>. This can mean a lack of equipment, internet connections, and the skills needed to navigate online. GDA’s survey showed that 60% of participants lacked these three factors to get online. Lloyds Banking Group, further exemplifying this, published research in 2021 that showed one third of disabled people do not have ‘even the most basic’ digital skills. The scale of this issue is immense. While disabled people make up a quarter of the population of the UK, they make up over half of the eleven million people who do not have ‘essential digital skills’<sup>9</sup>. This lack of basic computer literacy is before taking account of the complex and multifaced understanding and use of AI.

Cost, as well as digital literacy, is a crucial element of digital exclusion. In a policy briefing on the Cost of Living crisis, Inclusion Scotland highlighted that the cost of purchasing and running digital devices and connection disproportionately impacts disabled people<sup>10</sup> as they are more likely to be living in poverty. The ability to afford to access AI programs must be a key consideration when AI is used, and recognition given to how disabled people are not able to benefit from AI or be considered if they are left out of AI driven digital services and information provision.

The failure of public bodies including the Department of Works and Pensions to provide suitable alternatives to digital communication and services excludes disabled people. Disabled people in receipt of Universal Credit have reported being sanctioned for struggling to complete their online journal. In April 2019, as many as one in three people seeking Citizen’s Advice Bureau help with Universal Credit did so because they could not access the internet.

## Digital literacy and exclusion *(Continued)*

A participant in Inclusion Scotland’s think tank discussion noted that where digital upskilling of disabled people does exist – and it is patchy – it focuses, by necessity, on the basic digital literacy skills such as email use, web surfing and word processing. This leaves significant risk of AI increasing the digital divide that disabled people face as the technologies become more embedded in daily life, become more advanced and require greater digital literacy.

The think tank discussion also heard that AI in the workplace is a ‘gamechanger’ and an ‘enabler’ for disabled people to gain more independence at work. It could help employers to cut costs where, for example, it can reduce the need for personal assistants and other forms of software. However, this requires disabled people to ‘self-learn’ the capabilities of the AI software and how they can aid them at work, rather than being offered as part of ICT training within an organisation. This itself has the potential to create gaps in digital literacy between disabled people and their non disabled colleagues. The gaps created by the need to ‘self-learn’ and apply to work also has the almost inevitable consequence of increasing generational gaps in digital literacy.

The digital literacy gap also exists on an institutional level. Organisations and employers can be suspicious of the use of AI tools as part of work by disabled employees or students, often falsely believing that they are simply tools for the automation or plagiarism of tasks. Disabled people who need reasonable adjustments often have to ‘fight’ for it and navigate lengthy processes to gain access to the adjustments they know they need<sup>11</sup>, and AI may be no exception to this.

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## Digital literacy and exclusion *(Continued)*

AI tools and how they can assist disabled people in the workplace or education needs to be more widely recognised and understood in the context of reasonable adjustments from employers. It is also clear that this issue is also about disabled people's poverty, those with the least will be the most disadvantaged by the technologies.

Guidance does exist (see EQIA below) including by the Information Commissioner's Office along with the Alan Turing Institute has produced guidance for the requirements of the General Data Protection Regulation and the Data Protection Act<sup>7</sup>.

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### Solutions:

- > There is a need for Government to equip and resource disabled people's organisations to empower their members to attain digital literacy skills and enhance understanding of AI.
- > Statutory bodies, such as the Information Commissioner, could produce materials for disabled people, employers, and service providers specifically about the use of AI tools and equality and human rights, so disabled people can claim their rights and others recognise and support these rights.
- > Both existing and new information and advice should be widely promoted, and tested to ensure that it is accessible, applicable, and known about.

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Poverty and the impact of the cost of living crisis on disabled people is profound and is a challenge for all of Scotland. You can find out more about disabled people's lived experience and solutions for change in Inclusion Scotland's briefing and evidence pack 'Disabled People, Poverty and the Cost of Living Crisis' at [www.inclusionscotland.org](http://www.inclusionscotland.org)

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8 GDA - Telling it how it is – social isolation throughout the pandemic  
9 Lloyds Bank - Essential Digital Skills Report 2021  
10 Inclusion Scotland - Disabled People, Poverty, and the Cost of Living Crisis  
11 UNISON: 'Let's be reasonable'  
12 Disability, Bias, and AI

## Trust

**It was starkly stated by an Inclusion Scotland member at the think tank discussion that ‘there is a trust and knowledge gap which needs to be addressed.’ Central to increasing trust in AI – if we should - and indeed in the progress and process of regulation for it, is the need for a clear definition of AI, particularly as it relates to use by public bodies.**

Such a definition could enhance public awareness and provide clear criteria where responsibilities and duties, such as Equality Impact Assessments (see below), would apply. Disabled people are anxious about the ‘safety’ of AI, particularly in relation to data protection and about the potential bias within AI software and algorithms. Research on disability, bias and AI has already highlighted these concerns and notes that AI (for societal or wider use) largely serves the needs of those who are considered ‘normal’ in their needs to participate<sup>12</sup>.

Part of this concern over trust around how AI is used in public services stems from a belief that public bodies do not understand it fully, how it should be used, or what the problems might be, and may themselves be ‘overly trusting’ in AI without recognising the risks. For example, AI ‘machine learning’ often includes data shaped by prior human decisions and value judgments. This means that the same human biases, prejudices, and stereotypes that lead to discrimination can become embedded in AI-driven technologies thus prolonging and entrenching the discriminate that disabled people face<sup>13</sup>. Algorithms may end up systematising bias and they cannot simply unlearn a bias, and biased algorithms can be rolled out large scale at the risk of propagating discrimination.

The Equality and Human Rights Commission says that when public bodies are procuring systems to use in their service delivery, there is a risk staff may not understand how the systems work or make decisions making it more difficult to identify if the AI is working fairly<sup>13</sup>. This year, the Information Commissioner responded to concerns on the use of AI by Local Authorities in England. They had an inquiry which assessed eleven local authorities and concerns around decision making of systems in particular relation to the welfare system. While their inquiry found no ‘evidence to suggest that claimants are subjected to any harms or financial detriment as a result of the use of algorithms or similar technologies in the welfare and social care sector,’ they set out that there is need to ensure people are confident their data is handled lawfully and fairly<sup>14</sup>.

## Trust *(Continued)*

Part of this consideration needs to be informed consent – people should know whether systems they are interacting with use AI at any stage. Big Brother Watch has stated that there needs to be much stronger legislation that sees ‘any decisions involving automated processing that engage rights protected under the Human Rights Act 1998 are ultimately human decisions with meaningful human input<sup>15</sup>.’

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### Solutions:

- > Public bodies who are using any level of AI in their systems should be transparent about this to those accessing their information or service at point of use. One suggestion is the introduction of an ‘AI stamp’ on websites, forms etc., and this could include detail of the level and role of any human involvement in connection to this...
- > ...this should include the requirement to log AI algorithms and promote transparency initiatives to ensure public awareness of AI operations and potential biases
- > The Scottish Government, and its partners the Data Lab, should promote and enhance the use of the Scottish AI register by disabled people to aid access and awareness for stakeholders, and ensure that it is accessible for disabled people so that they can see how the services they interact with and rely on are using AI.
- > The Scottish Government should take accelerate action to deliver the AI Strategy principle that “AI systems should respect the rule of law, human rights, democratic values, and diversity.” Disabled people should be involved in this.
- > Organisations registering, using or planning to use AI (including as part of recruitment, for services disabled people will rely on, or systems that will make decisions about disabled people’s entitlements e.g. to social security) should commit to and support co-production with disabled people in the design, development, and evaluation of AI technologies to ensure needs and rights of disabled people are protected and progressed.

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13 EHRC - Artificial intelligence in public services

14 ICO - Addressing concerns on the use of AI by local authorities

15 Big Brother Watch - Brother Watch briefing on Algorithmic Decision-Making in the Criminal Justice System

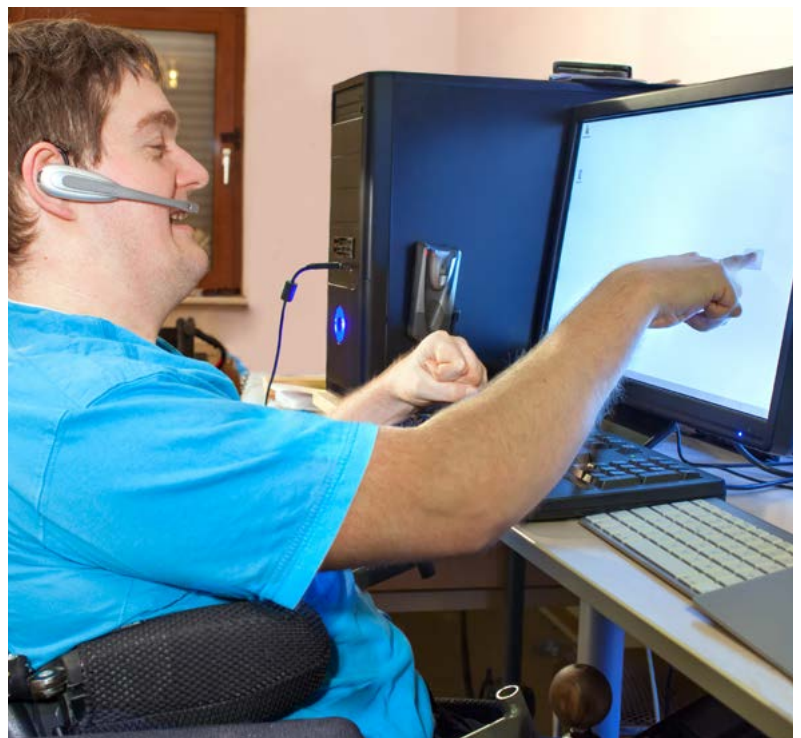
## Regulation

**AI is about people. Within the think tank discussion, an academic explained that the ‘moment’ that we are in right now poses both significant opportunity, and significant risk.**

The regulatory landscape is still in development, and not yet implemented in any agreed or international sense. This is despite how embedded the technologies are in daily life, and the continued acceleration of their use. A particular issue with the regulatory environment is that the legal and legislative processes struggle to keep pace with the development of the technologies, their capabilities and their rapidly expanding availability, accessibility, and use, and the international aspect of this issue. One member described this as ‘closing the stable door once the horse has bolted.’ This creates a real risk where disabled people, and their voice in influencing regulation, may be left behind.

Crucially, many experts and advocates are concerned that the AI regulatory landscape is governed by – and for the benefit of – the companies that develop and own the technology. Referred to as a ‘pro-innovation’ regulatory landscape in the UK, there is concern that business need and opportunity is being prioritised over equality, rights, and safety and this leads the regulatory framework to focus on economic rather than wider benefits. This ignores not just disabled people’s rights, but the valuable roles we play in society including in the economy. Both innovation and inclusion can, be mutually assured, and digital literacy plays a role here as there is concern that lawmakers are not equipped with the knowledge to fully comprehend the regulation that is needed.

As above, there is concern that disabled people who are impacted by the use of certain technologies are not being involved in the regulatory process. The motto of the disability movement is that there ‘should be nothing about us, without us,’ meaning disabled people should be included in decisions about them, and this includes regulation of AI.



## Regulation *(Continued)*

The regulatory framework currently lacks monitoring and reporting of public bodies that use AI, and how they use it. Part of this concern stems from the fact that certain criterion needs to be met before individuals need to be informed of its use under data protection regulations.

It is a problem across the public sector that people do not know how decisions are made about them. Simply, you cannot claim your rights if you do not know the processes, and do not know you have these rights. Disabled people at the think tank discussion felt that there is a need to ‘step back’ from viewing regulation of AI as merely ‘digital’ or ‘data protection’ legislation, but rather a wider issue for human rights legislation thus shifting the ‘lens’ in which AI is viewed from being an issue for technology and more to a rights-based issue. In Scotland, the legislative process is underway for a Human Rights Incorporation Bill to bring United Nations human rights conventions into the Scots law including the Convention on the Rights of Persons with Disabilities<sup>16</sup>. This may provide an avenue for rights-based AI regulation, and the culture in which regulation is formed, to be considered.

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### Solutions:

- > Existing and future human rights frameworks, such as the Human Rights Incorporation Bill, should be recognised as including digital rights as promoted by the United Nations<sup>17</sup>, to ensure the protection and promotion of disabled people’s rights in the context of AI technologies.
- > Third-party audits, like place-based access audits and testing, should be carried out by and with disabled people on AI software before it is utilised, to reveal potential biases or barriers impacting on disabled people so that these are addressed.

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<sup>16</sup> Scottish Government - A Human Rights Bill for Scotland

<sup>17</sup> <https://www.un.org/techenvoy/content/digital-human-rights>



## Equality Impact Assessments (EQIAs)

EQIAs should assist public bodies to anticipate the needs of disabled people (and people with other protected characteristics) when making decisions about projects, policies, and services<sup>18</sup>. They are required by law as part of the Public Sector Equality Duty under the 2010 Equality Act and, done correctly, should remove barriers and promote equality.

The think tank discussion highlighted that it is difficult for public bodies to fully assess the impact of AI on equalities if there is not a full understanding of the technologies in the first place. Disabled people should be involved in working with public bodies to EQIA their procurement and use of AI technologies and the decisions made by it.

The Equality and Human Rights Commission produced guidance for public bodies around the procurement and use of AI by public bodies and their Public Sector Equality Duties<sup>6</sup>.

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### Solutions:

- > Education and training programs should be developed to enhance public bodies understanding of AI, its potential impacts on disabled people and other protected characteristics, and how to conduct EQIAs specific to AI processes.
  - > Accessible information should be developed to assist disabled people to participate in AI EQIAs (and other solutions in this report) and to grow their understanding of how AI can impact on disabled people's rights. This will help them to assist public bodies with AI EQIAs. Existing and new guidance should be widely promoted.
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## Leadership for training

**Leadership has been identified as a key to ensuring that organisations implementing AI strategies and delivering services using AI have the ethical strategies in place and empowered staff who can use and monitor the technology and the decisions it makes effectively.**

Perhaps more importantly leadership is key to ensuring that AI is used for the benefit of the individuals who use an organisations service and not solely for the benefit of the organisation and its capacities. Leaders have a role to play not just in providing the right training for staff but ensuring that equality and human rights are embedded across organisations.

Training staff in AI and its applications is crucial for organisations delivering services disabled people rely on to participate equally in society. AI technology has immense potential to improve accessibility and inclusivity for disabled people and staff, such as those in education and social care need to be aware of the existence and any issues around AI for inclusion and access.

Growing an understanding of AI could equip staff with the ability to identify biases in AI algorithms that may discriminate against disabled people, and to recognise this and know to act.

Reports by other organisations have identified solutions relating to diversity in the AI development workforce and the benefits of this such as reducing or curtailing bias in algorithms.

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### Solutions:

- > Accessible information and training aimed at increasing AI literacy and understanding of its role in rights enjoyment, should be co-produced, for employees and public – including disabled people - and made widely available to improve understanding of AI and its implications.
  - > Employment and education policies and frameworks (such as the Fair Work Convention) could promote increased awareness and education among employers about the benefits and potential reasonable adjustments facilitated by AI tools, emphasising their potential to support disabled people in the workplace, and in their studies.
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## Conclusion

Given the potential of AI to both increase disabled people's marginalisation in society and to be a potential route to claiming rights, means that taking action is now of the utmost urgency and importance. Recognising that disabled people's marginalisation and addressing that are essential first steps.

The benefits are currently situated more at an individual level must not be overshadowed by the risks at societal level. Rather there should be benefits at both levels. The empowered and supported participation of and co-production with disabled people in the development of AI technology, policy surrounding it and regulation is key to realising opportunity and mitigating risk. So too is recognition and understanding by regulators, procurers, users, and developers of AI of disabled people's rights. Disabled people's participation and co-production will contribute to that.

Although AI is a 'new' set of technologies, the motto of 'Nothing About Us Without Us' is not a new principle but fits this new age as it fits everything that disabled people interact with.

The solutions set out in this paper are but a starting point to disabled people's claim on their rights in the AI world.



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# About Inclusion Scotland

Further information Inclusion Scotland is a 'Disabled People's Organisation' (DPO) – led by disabled people ourselves. Inclusion Scotland works to achieve positive changes to policy and practice, so that we disabled people are fully included throughout all Scottish society as equal citizens.

You can become a member of Inclusion Scotland by visiting our membership page. Membership is free and open to disabled people, disabled people's organisations and our supporters.

<https://inclusionScotland.org/become-a-member>

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