

Using AI to support people with disability in the labour market

Opportunities and challenges

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What can AI do to support PWD in the labour market?

Annex A. Repository of AI-powered solutions

Table A A.1. Repository of identified AI-powered solutions

Type of solution	Disability	Solution name	Solution producer	Type of actor	Brief description	Point of intervention on the labour market	Accessibility is a...	Advancement
Disability-centred solution	Cognitive	/	Frist Center for Autism and Innovation at Vanderbilt University	Academia	VR and AI-powered job interview coaching system for neurodiverse individuals.	Interview preparation	First intent	In use
Disability-centred solution	Cognitive	/	Frist Center for Autism and Innovation at Vanderbilt University	Academia	VR and bio-feedback driving instruction system for neurodiverse individuals, using AI to personalise the instruction system.	Commuting	First intent	In use
Disability-centred solution	Cognitive	Brainpower	Affectiva	Medium-sized firm	Wearable glasses with an in-built family of applications designed to help individuals with autism to teach themselves crucial social and cognitive skills including emotion recognition and eye contact.	General communication	First intent	In use
Disability-centred solution	Hearing	Genesis AI	Starkey	Large firm	Automatically-adapting hearing aid with additional AI features such as help with tasks like translations and transcriptions.	General independent living	First intent	In use
Disability-centred solution	Hearing	Moment Sheer	Widex	Large firm	Automatically adapting hearing aid using real-time feedback from users and data from a companion app on what settings work well in various environments.	General independent living	First intent	In use
Disability-centred solution	Hearing	Oticon Real	Oticon	Large firm	Hearing aid with algorithm trained on real-life sounds to respond to various sound scenes allowing for open soundscapes (birds, water sounds etc.) without losing	General independent living	First intent	In use

77% of the 142 examples identified would not exist without AI

1. Disability-centred solutions (>50% of cases)
e.g.: live conversation captioning, speech recognition algorithms, gait-correction prosthetics, mental health conversational agents

2. Environment-adaptation solutions (≈ 25%)
e.g.: algorithms converting texts into plain language, alternative job-matching tools, indoor positioning algorithms

3. Meta-level solutions improving accessibility (≈10%)
e.g.: recommendation algorithms for workplace adaptation

4. Solutions creating new jobs opportunities (≈5%)
e.g.: remote forklift operation through computer vision

+ inclusive data collection initiatives (>5%)



What could go wrong?

Lack of reliability & errors	<ul style="list-style-type: none">• More likely for PWD• More consequential too
Built-in bias & discrimination	<ul style="list-style-type: none">• If training datasets exclude PWD• Or reflect embedded ableist biases
Risks to privacy	<ul style="list-style-type: none">• PWD are more easily identifiable because of their uniqueness
Inequity of use	<ul style="list-style-type: none">• If mainstream AI is built in an inaccessible manner

Limitations of risk mitigation strategies:

- Perfect representation of disability in datasets is an elusive goal
- Audits and statistical tests for bias are limited by data availability
- Testing for disability-related bias is more difficult than with other characteristics (e.g., gender, age)



What can governments do to better tackle risks?

- Explicitly regulate against discriminatory uses or impacts of AI for people with disability
- Revise liability laws and procurement guidance to incentivise the development and deployment of safe and interoperable AI products
- Promote “process-oriented” accessibility standards for AI-powered products
- Implement better systems of quality control and enforcement



What can governments do to help seize the opportunities?

- Fund R&D into commercial AI applications
- Help develop sustainable business models
- Facilitate the production of accessibility-relevant data
- Foster the discoverability of accessibility-enhancing solutions
- Address human resources challenges
- Promote better design practices
- Orchestrate the better use of AI to close the disability employment gap



Find the report [here](#)

<https://www.oecd.org/future-of-work/>

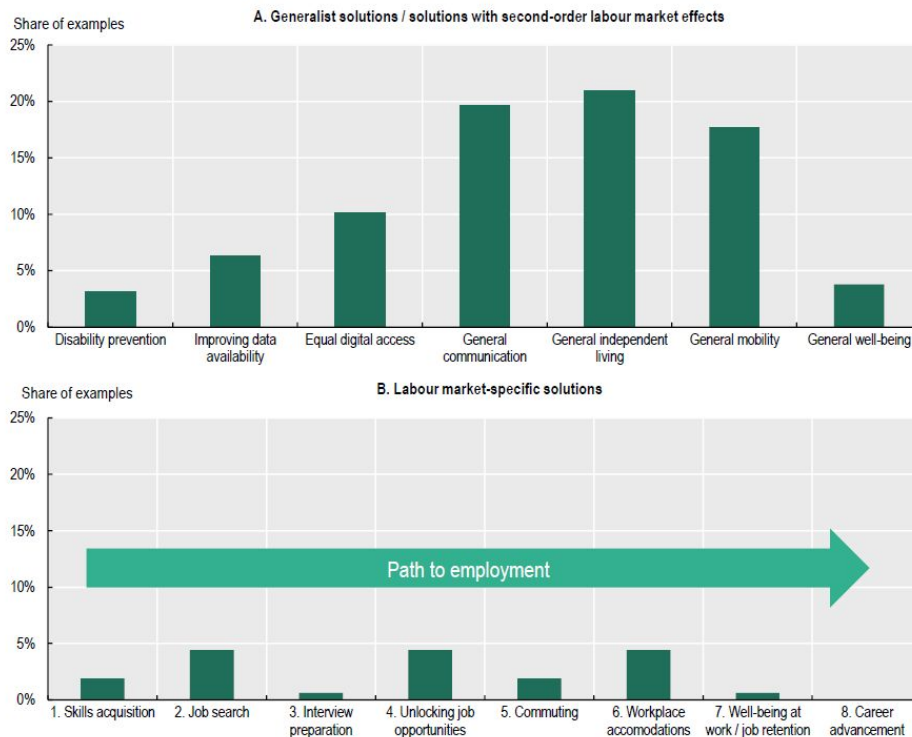


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Figure 2. Where on the path to employment do most AI-powered solutions intervene?



How transformative could AI be for accessibility?

- AI can cater to different scenarios and types of disabilities at the same time
- AI is in theory well-suited for collaborative development (=> “nothing about us without us”)
- AI-powered solutions supporting PWD are easier to integrate into mainstream technology which could help scale accessibility faster
- AI can reduce the cost of solutions fostering employment for people with disability.



What is preventing the use of AI to reduce the disability employment gap?

1. Challenges to research and development

- Lack of funding
- Cost of access to data and computing power
- Difficulty of attracting AI talents, lack of accessibility training for developers

2. Challenges to commercialisation

- Lack of funding to scale past the prototype phase
- Difficulty of finding sustainable business models
- Issue with the discoverability of solutions

3. Challenges to adoption by users

- Lack of user engagement leading to irrelevant and impractical solutions
- Lack of interoperability

