Microsoft AI for Accessibility Program
AI for Accessibility

Pushing the limits of what AI can do in accessibility to ensure global independence and inclusion in society for people with disabilities

Focus Areas:

- Education
- Employment
- Community
- Home

Learn more: aka.ms/AIforAccessibility
Azure Cognitive Services: Pre-Built

Uses an API call to embed the ability to see, hear, speak, search, understand, and accelerate decision-making into apps.
Azure Machine Learning: Custom

Uses data to further refine and customize your project, allowing your solution to continue to learn and improve
Inclusive AI Design
A New Cautionary Tale

HireView is a video interview that predicts job candidate performance based on:

- facial expressions
- tone of voice
- vocabulary
Recognizing Bias

• Datasets
• Associations
• Automated Decisions
• Interactions
• Confirmations
Design AI to Earn Trust & Respect Values

- Fairness
- Reliability & Safety
- Privacy & Security
- Inclusiveness

Transparency
Accountability

https://aka.ms/disabilityaiethics
5 principles of inclusive AI design

1. Redefine bias as a spectrum
2. Enlist users to correct bias
   “Nothing about us without us”
3. Cultivate diversity with privacy and consent
   “Representation matters”
4. Balance intelligence with discovery
5. Build inclusive AI teams
AI for Accessibility Projects
Challenge:

1 in 10 people living with disabilities have access to the assistive technology needed.

City University of London is collecting data and developing experimental algorithms for improving personalized AI object recognition.

WeWALK is enabling independence and safe, limitless exploration with a smart cane for people who are blind or have low vision.
**Community**

**Challenge:**

In some countries, there may only be one mental health professional per 100,000 people. When paired with the reality that 1 in 5 people have a mental health condition, we are asking how technology can and should be involved.

*Mental Health America (MHA), Northwestern University and University of Toronto* are partnering to bring mental health research and AI together.
**Employment**

**Challenge:**

In the UK, the unemployment rate for people with disabilities (7%) is more than double that of individuals without a disability (4%).*

*pre COVID-19

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Leonard Cheshire Disability is collecting data about the career journeys of people with disabilities.

The Frist Center for Autism and Innovation at Vanderbilt University is developing VR job interview training for people with Autism.
Challenge:

In the UK, the graduation rate with a 4-year degree for students with disabilities (22%) is half than that of individuals without a disability (38%).

The Open University ADMINS team created “Taylor” a chatbot assistant to reduce the barriers to independent living for people with cognitive disabilities.
Request for Proposals (RFP) in Education

Opportunity:
Leverage AI to build and advance equity for students with disabilities within but not limited to the following areas:

- Adaptive and assistive technology
- Access to Curricula and Content
- Mental Health and Intersectionality

AI4A Education RFP Deadline: March 12, 2021

Apply online at aka.ms/grant
PhD Opportunity

Opportunity:

Microsoft-funded PhD opportunity with Swansea University in the UK that will be looking at disability-first dataset collection in low-resource settings.

Application Deadline: March 26, 2021

Apply online at: https://computationalfoundry.eu/icase-phd/
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How will you build a more accessible and inclusive world?