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2017 Faculty Summit
Attendees

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AI for Accessibility

Meredith Ringel Morris
Principal Researcher, MSR Ability Team
• Worldwide, more than **1 billion people** experience some form of disability [World Health Organization, 2011]
• **19% of the U.S. population** is disabled [U.S. Census Bureau, 2012]
“As I think about living our mission, top of mind for me heading into 2016 is how we must make Microsoft products accessible to the more than 1 billion people globally of all abilities... Universal design is central to how we realize our mission and will make all our products better... I will continue to devote my time and passion to this priority.”
Disease segments:

**Visual**
- Colorblind
- Low vision
- Blind

**Hearing**
- Hearing loss
- Deaf

**Cognitive**
- Dyslexia
- Seizure
- Learning Disabilities
- Autism

**Speech**
- Accents
- Speech impediment
- Unable to speak

**Mobility**
- Arthritis
- Quadriplegia
- Spinal cord injury

**Neural**
- Bipolar
- Anxiety
- PTSD
- Depression

Diseases can span disability segments:

- Parkinson’s Disease
  - Parkinson’s affects cognition, speech and mobility
  - Michael J. Fox

- ALS
  - ALS affects mobility and speech
  - Prof. Stephen Hawking

Slide courtesy of Chief Accessibility Officer Jenny Lay-Flurrie
Panelists

Jeffrey Bigham
Carnegie Mellon University
Augmenting Vision

Walter Lasecki
University of Michigan
Augmenting Hearing

Shaun Kane
University of Colorado
Augmenting Speech
How to deal with AI errors in critical user-facing domains?

Pros/Cons of human-in-the-loop AI for accessibility?

How to handle data needs vs. privacy tradeoffs?

What accessibility research challenges will push the bounds of AI, growing both fields?

What AI research challenges are roadblocks to accessibility research?
Thank you