Microsoft Research

Each year Microsoft Research hosts hundreds of influential speakers from around the world including leading scientists, renowned experts in technology, book authors, and leading academics, and makes videos of these lectures freely available.

2016 © Microsoft Corporation. All rights reserved.
Siga esta presentación **en su idioma** en la aplicación Microsoft Translator o en cualquier navegador de Internet.

www.translate.it/CTXZY
Verfolgen Sie diese Präsentation in Ihrer Sprache, auf der Microsoft Translator-App oder einem beliebigen anderen Web-Browser.

www.translate.it/CTXZY
THE ROLE OF ACCESSIBILITY IN THE NEW AI FRONTIER

Brian Trager
GROWING UP AS A DEAF PERSON
I WAS BORN DEAF
SPEECH THERAPY
ENGLISH WAS MY FIRST LANGUAGE
DINNER TABLE SYNDROME
A WHISPER IN MY EAR
THE GREATEST HEAD NODDER IN TOWN
LIFE IN A DEAF SCHOOL
DEAF IDENTITY
HISTORY OF INNOVATION RELATED TO ACCESSIBILITY
Early 20th Century deaf inventor

Invented many things that we use today
- Baby alarm
- Telecommunications device
- Doorbell lighting system
- None of these were patented

Featured in The Silent Worker for a deaf alarm clock
The laboratory where William E. Shaw, a deaf mute, has perfected his remarkable "talkless telephone" apparatus for the deaf. Notice the lettered light bulbs at the upper left of the picture.

The First "Talkless" Telephone by William Shaw
Born in 1920

Like Shaw, he developed an interest in telecommunications especially radio telegraph

Licensed ham radio operator

1971 Laurent Clerc Award Recipient

FORTY YEARS LATER — ROBERT WEITBRECHT
GROWTH OF TTYs IN USE (1966 – 1977)
EVOLUTION OF THE TTY
Use of line 21 approved by FCC in 1976

Adoption of closed captions
- Extremely slow
- Limited coverage
- Cost

Teletext controversy

American with Disabilities Act
- Mandated closed caption chip in every television 13” or higher

Telecommunications Act of 1996
- Mandated closed captions on television programs

Captions on the Web
HOW HDMI BROKE CLOSED CAPTIONING
THE INTRODUCTION OF THE PICTURE PHONE

AT&T demonstrated the Picturephone at the World’s Fair in 1964.
Sorenson VP-100

- Developed specifically for the deaf community

Why did this succeed where others fail?
- Clear, crisp video at 30fps
- Ease of use
- Connects to existing TVs
- Easy to call Video Relay Service
Apple featured a deaf person in the video using FaceTime.

Experience was similar to making a normal phone call:
- Functional equivalency
- Simple and intuitive

Extremely popular in the Deaf Community.
ACCESSIBILITY PROJECTS
Then **hummingbirds** with bright **flowers** on their **beaks** flew **right** in front of the girl. The **birds** circled the girl **furiously**. She swatted at them. They flew away.
ENHANCED AUDIO TOUR

Immerse yourself in our complimentary Enhanced Audio Tour and discover the influences and inspiration that have shaped Dale Chihuly’s art and career.

Listen on your smartphone at WWW.CHIHULYTOUR.COM or use the QR code below to link directly to the tour.

Need a QR CODE READER?

MUSEAI
THEATER ACCESSIBILITY
REAL-TIME SPEECH TRANSLATION
ARTIFICIAL INTELLIGENCE
AMBIENT INTELLIGENCE
Introducing echo show
Now Alexa can show you things
ACCESSIBILITY INTELLIGENCE

doing a trick on a skateboard."
AUGMENTED INTELLIGENCE
THE ROAD FORWARD
INCLUSIVE DESIGN MUST START FROM THE BEGINNING
ACCESSIBILITY IS NOT AN OBLIGATION, IT IS A MISSION
ATTITUDE IS EVERYTHING
Microsoft mission

Empower every person and every organization on the planet to achieve more
With 15000 hearing couldn't there's no better place on earth. To find ways to break the gap the chain the two community. But I'm hoping that translator would be one of those lieutenant. So because together. We can empower everyone. Type. Thank you.

We have three minutes for questions. oh,
Thank you.

We have three minutes for questions.
I would be better if you talked into a phone because it captions to come up on the screen.
No other worked reasonably, well for your voice for whatever reason we were really struggling with Brian Voice today.
i just want to point out the brian is actually using this in the class, so you're
No other worked reasonably, well for your voice for whatever reason we were really struggling with Brian Voice today.

I just want to point out the Brian is actually using this in the class. So you're seeing this houses even usable.

But if you go and listen to what he's teaching in the classroom. He's using this in its transcribing fairly accurately were getting around.

An error rate of run 19 percent on classroom content in 1919 percent usable. My voice is around 15 percent. Give you a sense. So its approximating my voice.
whatever reason we were really struggling with Brian Voice today.
I just want to point out the Brian is actually using this in the class. So you're seeing this houses even usable.
But if you go and listen to what he's teaching in the classroom. He's using this in its transcribing fairly accurately were getting around.
An error rate of run 19 percent on classroom content in 1919 percent usable. My voice is around 15 percent.
Give you a sense. So its approximating my voice.
How do you handle multiple people in the same meeting?