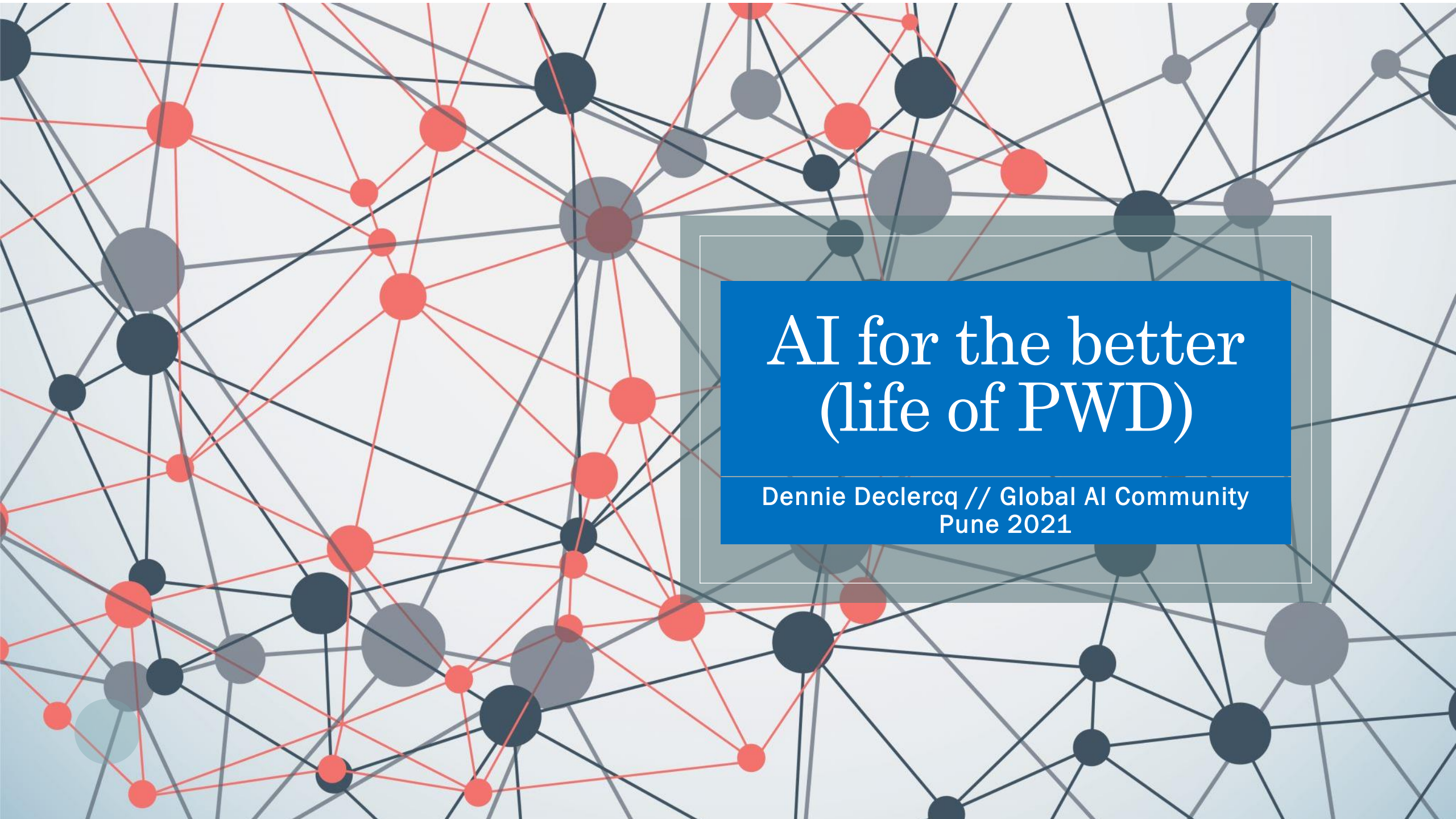
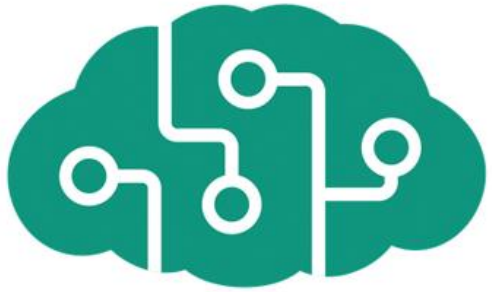


AI for the better (life of PWD)

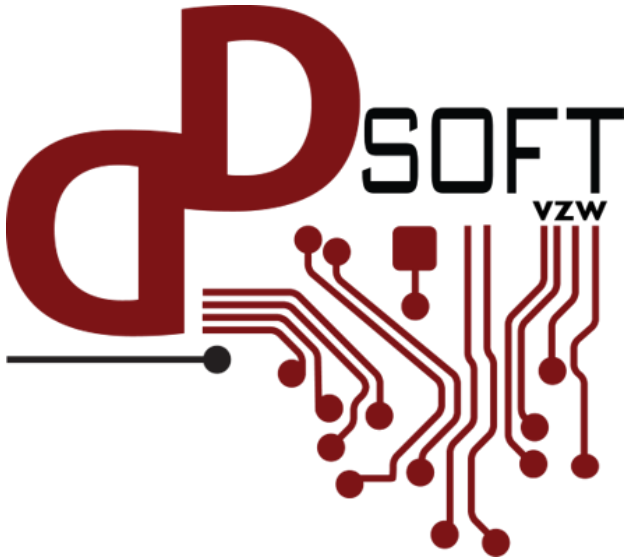
Dennie Declercq // Global AI Community
Pune 2021

Hi, My name is!

- Dennie Declercq
- @DennieDeclercq
- #DreamingIsBelieving
- President & Developer DDSoft



Microsoft
Cognitive Services



And I am NOT an AI engineer

Content

- Primer into Accessibility
- Microsoft Cognitive Services API overview
- Real world problems
- The real inspiration
- Real world inspiration
- AI For Good
- Inspirational trigger
- How to get started?
- Wrap up
- Thanks || Q&A

PRIMER INTO ACCESSIBILITY

Kind of disabilities

Learning disability

Autism

Visual

Auditory

Motoric

Much more…

Learning disability?

Significant limitations in both:

- Intellectual functioning
- Adaptive behavior

Learning Disability

Intellectual Functioning

Also called intelligence

Mental capacity

IQ score between 70-75

Adaptive Behavior

Conceptual Skills

- Language/literacy
- Money
- Time/numbers

Social Skills

- Social responsibility
- Self-esteem

Practical skills

- Activities daily living
- Personal care / healthcare

Principles of Inclusion

- Same activities
- Same district
- Work Together
- Adjustments par person

Digital Difficulties for PWD.

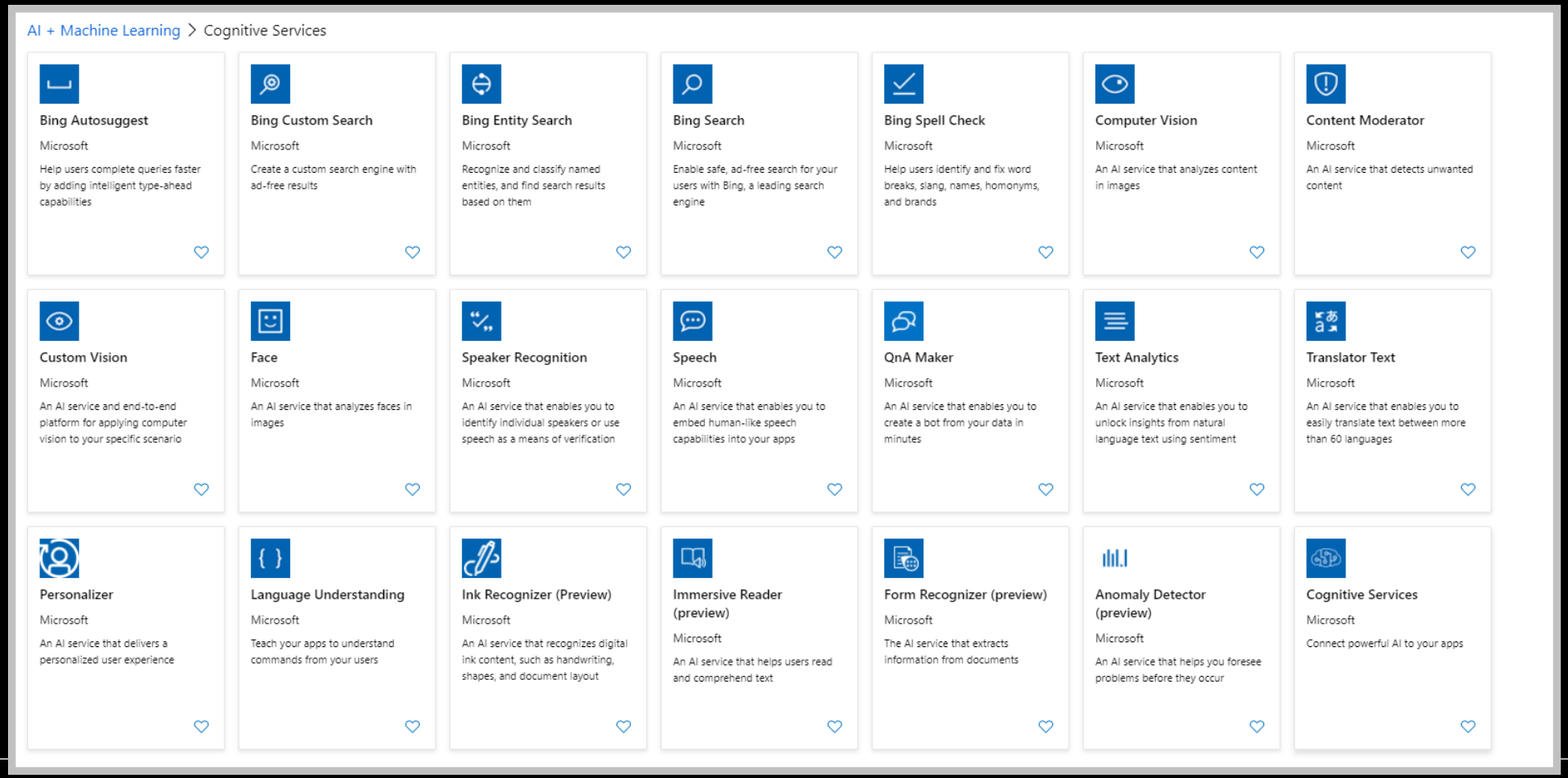
Learning Disability	• Read • Understand
Autism	• Understand • See structure
Blindness or vision loss	• Decreased ability to read • Decreased ability to navigate
Auditory disabilities	• Hearing notifications • Following movies without audio description.

Our Focus

- People with Learning disabilities
- Autism
- People with mental health situations

MICROSOFT COGNITIVE SERVICES API'S

GETTING STARTED WITH COGNITIVE SERVICES

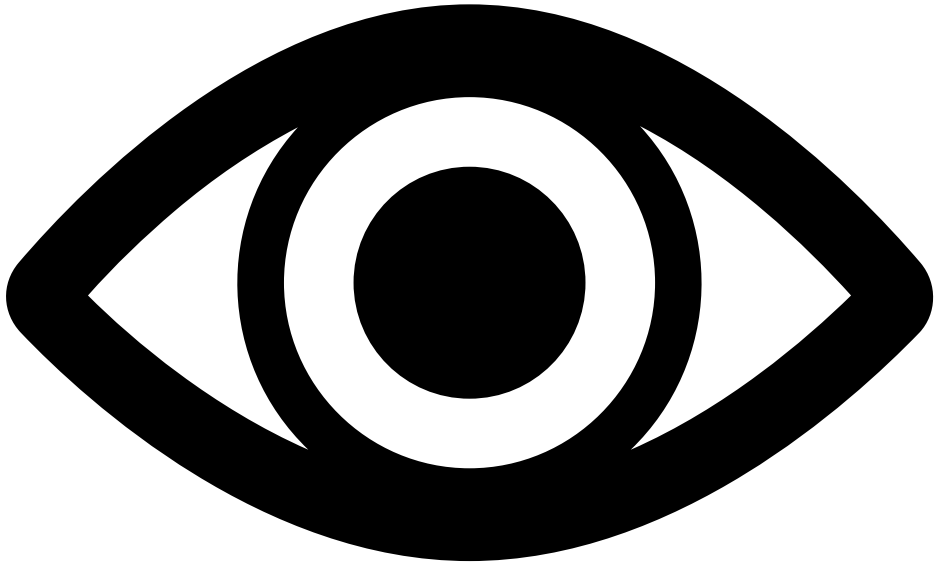


DEMO: Creating a Cognitive Service on Azure

Speech Service

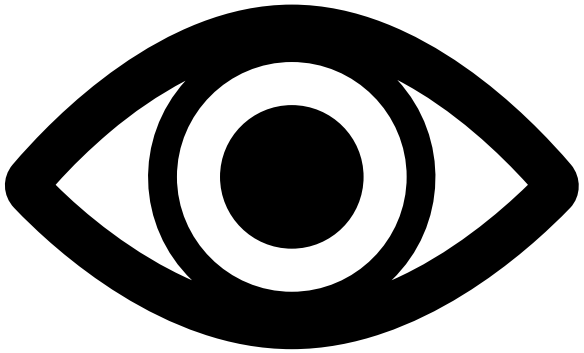
- Text-to-speech
- Custom Voice

DEMO: Speech API



Vision API

- Analyzes images
- Let PWD take pictures and tells what it is.

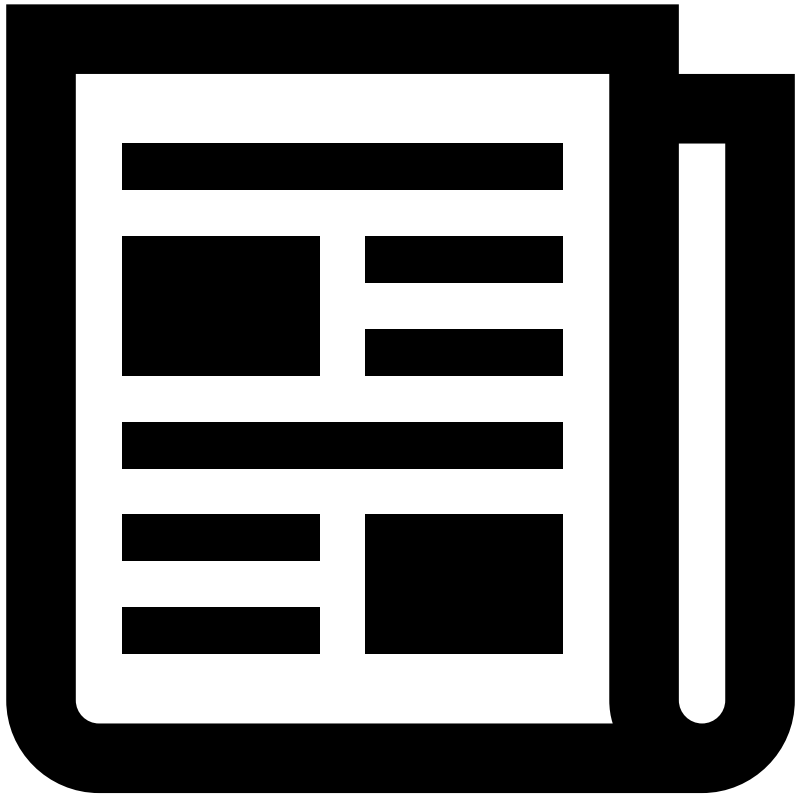


Face API

- Detect Emotion
- Detect Facial Hair
- Detect Smile
- Detect Age

BOT Service

- Provide BOTs
- BOTs really can assist PWD
- Make clear guidelines



Immersive Reader

- Accessibility features like:
  - Reading aloud websites
  - Linking pictographs to websites
  - Text appearance options

Translator Service

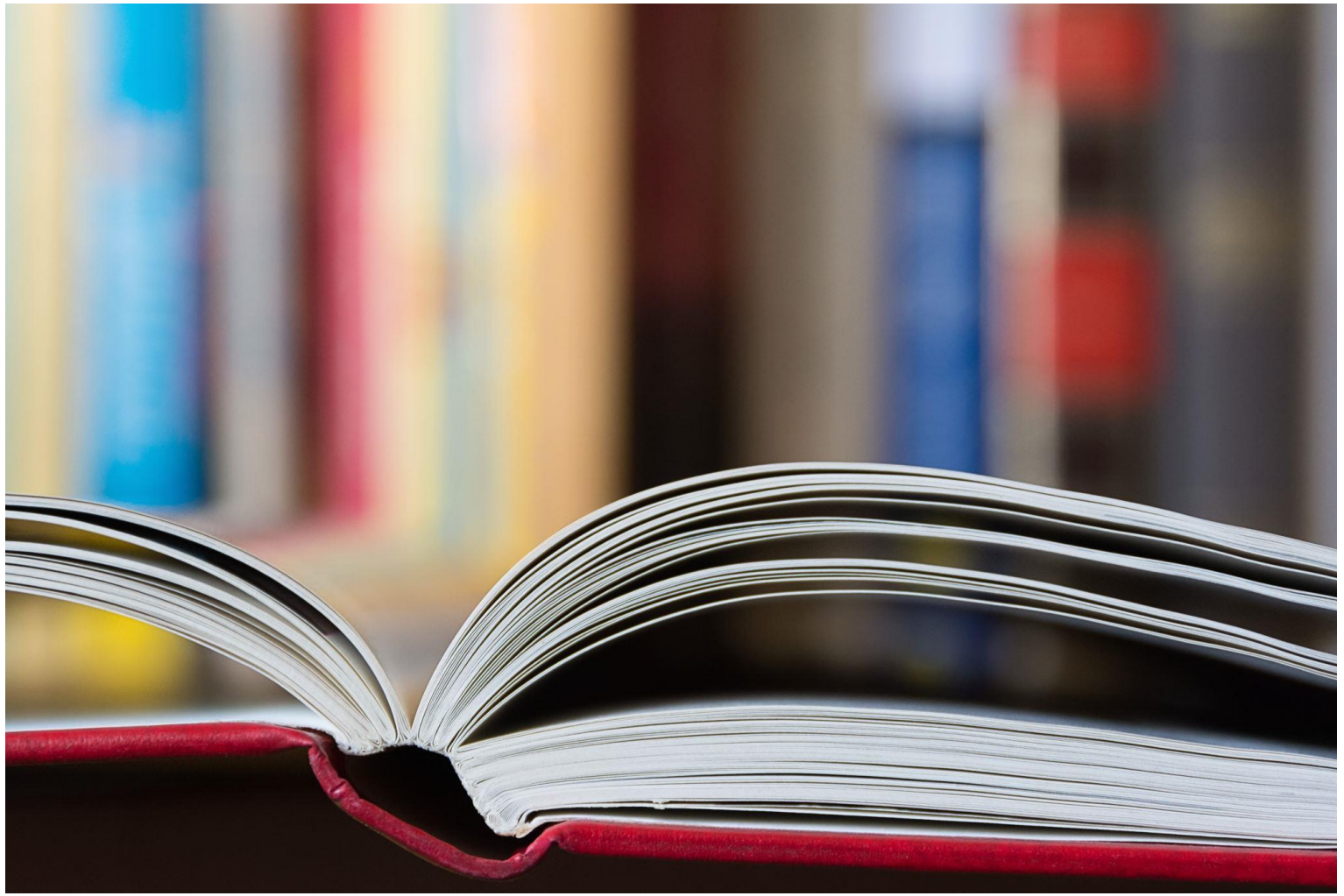
- Translation
- Language Detection

DEMO: Translator API

PROBLEMS

Literacy

- Reading information
- Understanding written text
- Recognizing money
- Math



Executive Functions

- Planning ‘simple’ tasks
- Making choices
- Concentration

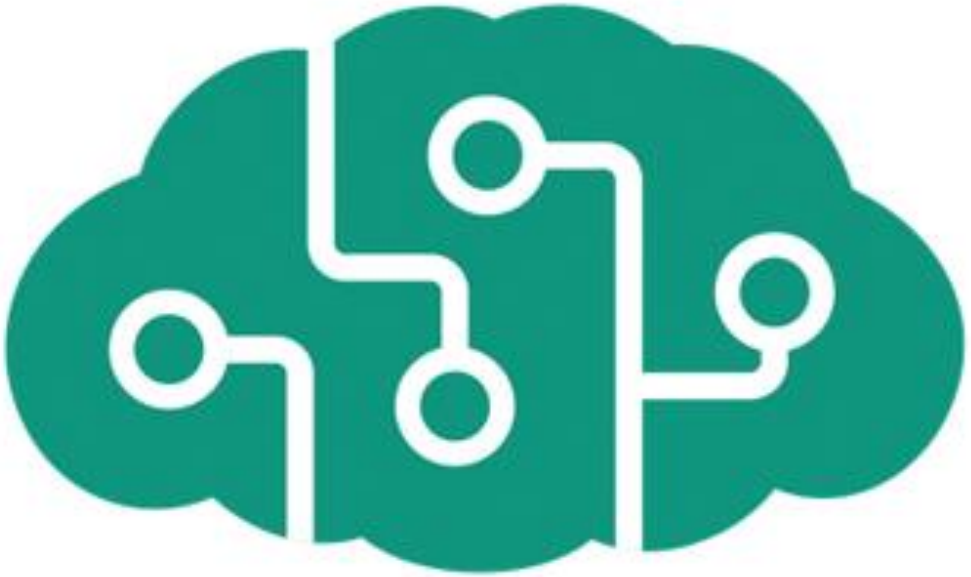
‘FEELING’

“I have no elbows, I don’t feel if I am going over your borders, and if this annoys you”-Dennie Declercq

Self-trust

- Self-trust can be hard
- Can I really do this?
- Will this really work?

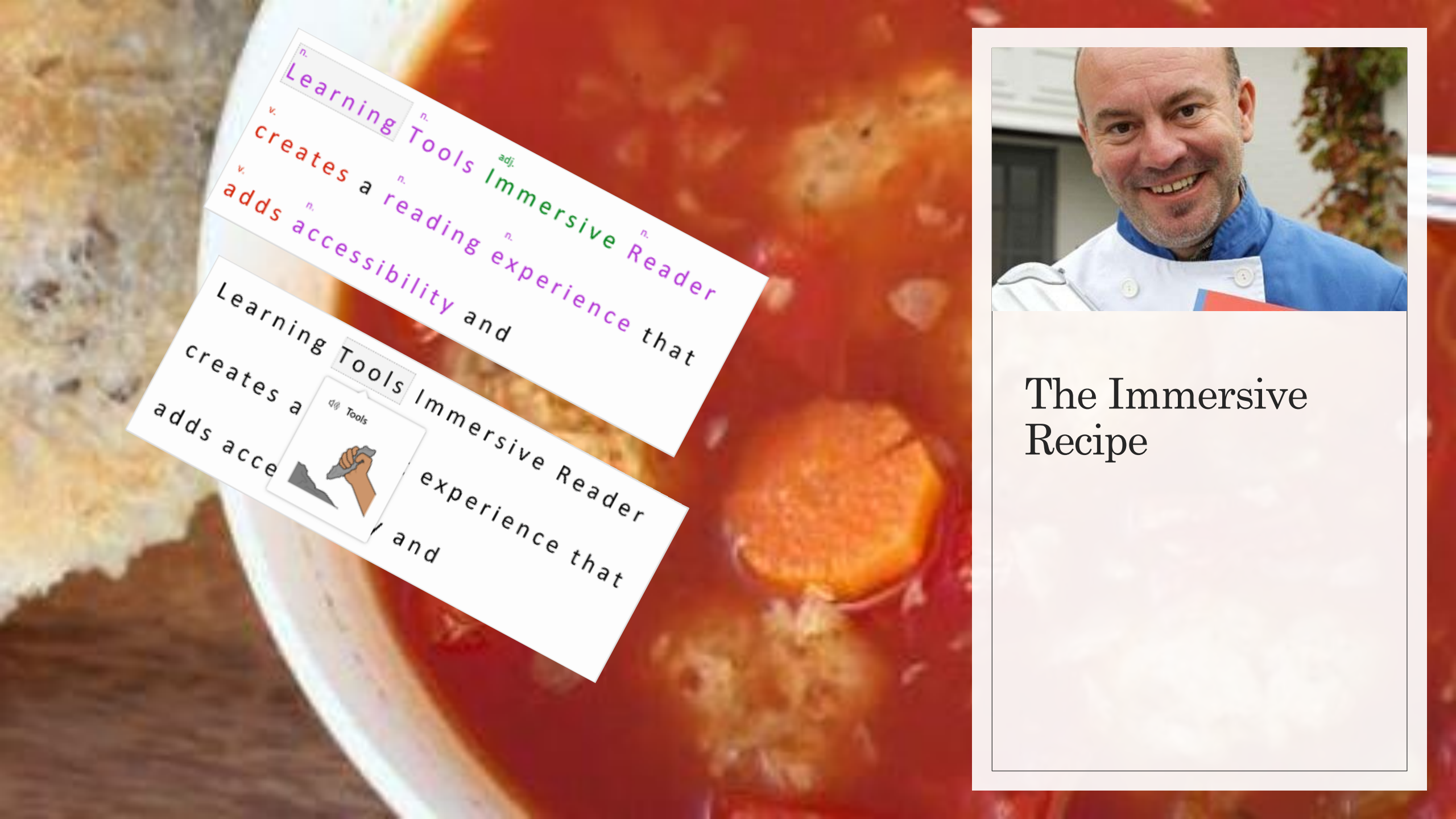
AS YOU SEE…



Microsoft

Cognitive Services

THE REAL INSPIRATION



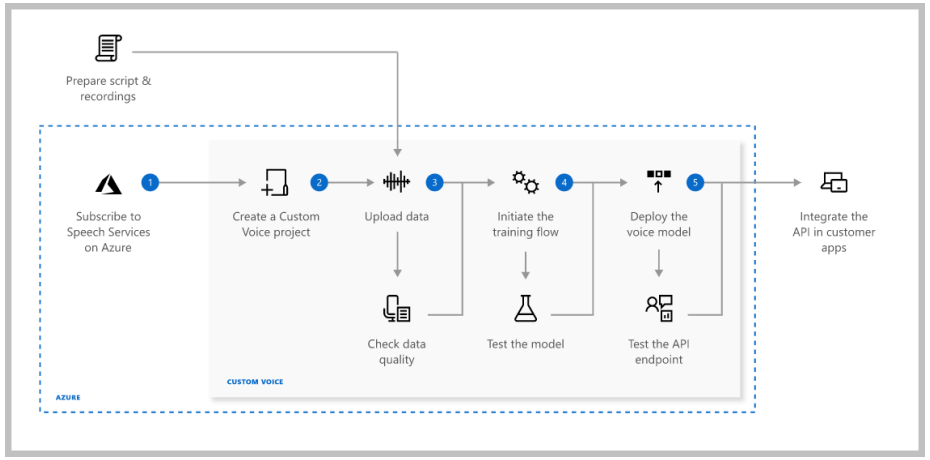
The Immersive Recipe

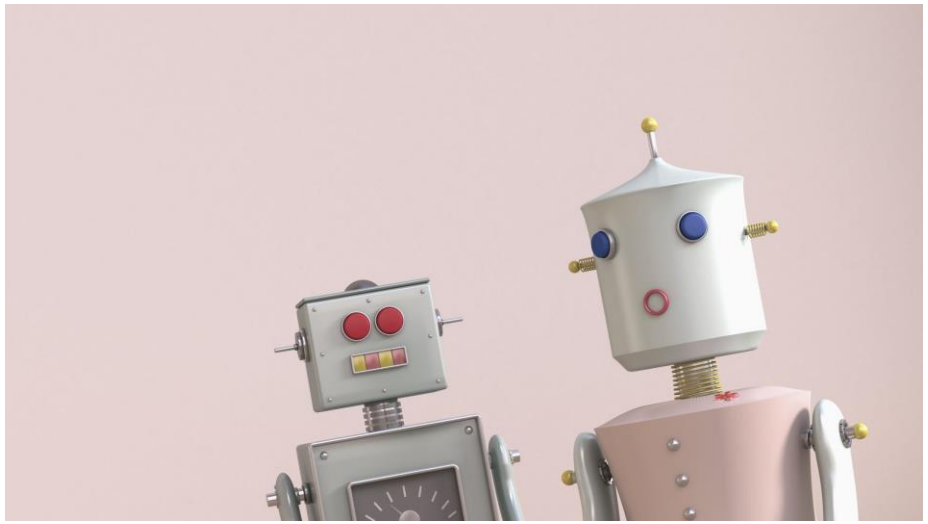
My vision barber

Custom Vision

Face API

```
[Newtonsoft.Json.JsonProperty(PropertyName="beard")]
public double Beard { get; set; }
```



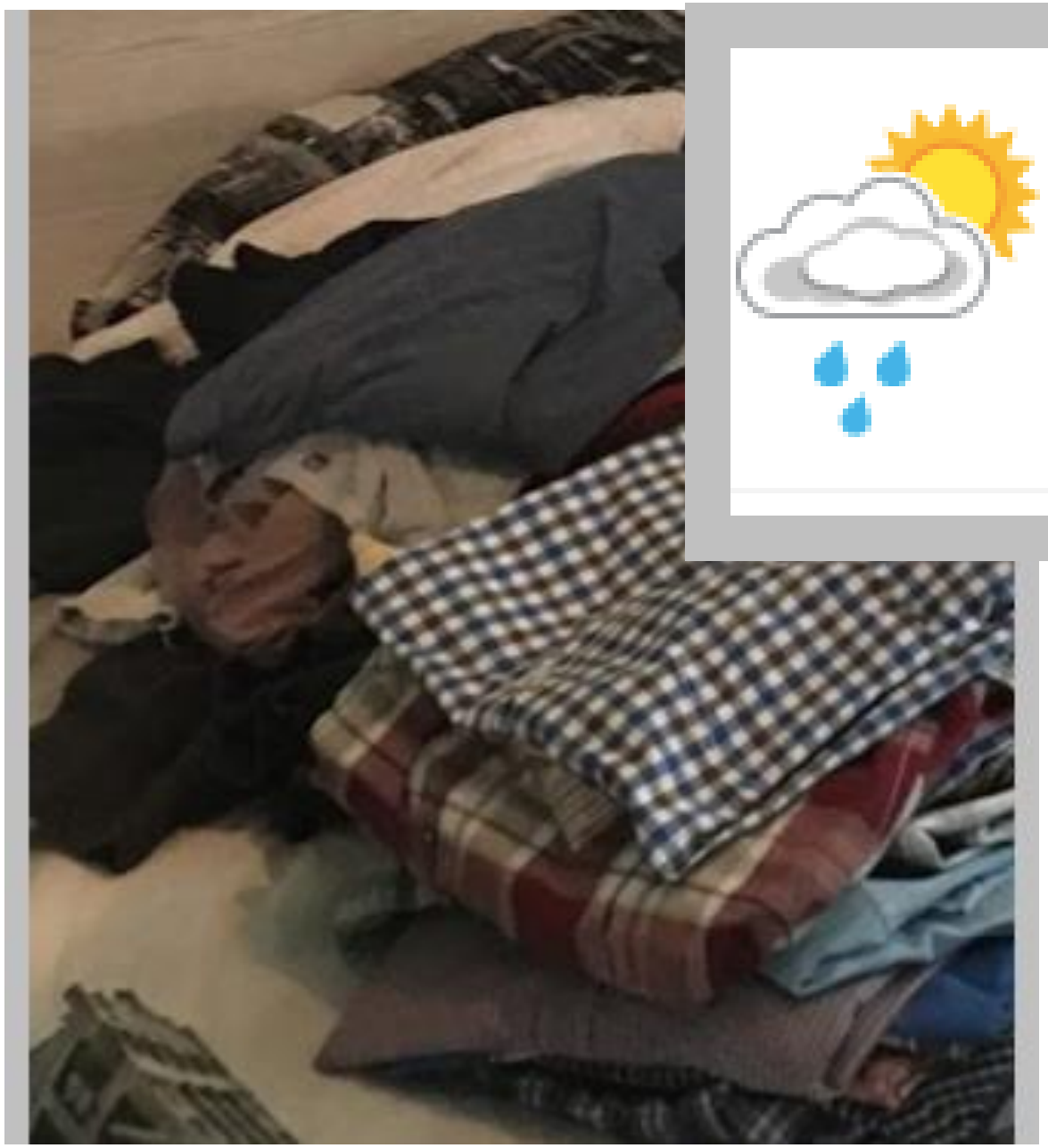


My Artificial Mom

Text To Speech

BOT Service

Custom voice

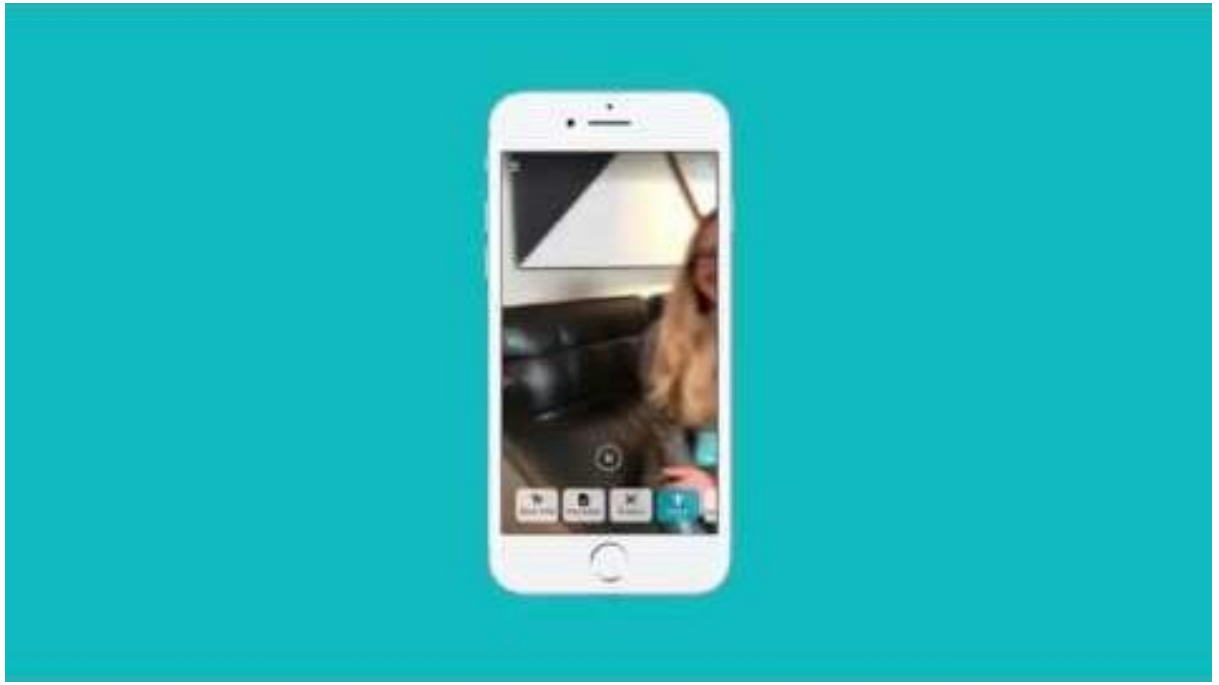


The AI wardrobe

Graph API

Computer Vision

REAL WORLD INSPIRATION



MICROSOFT SEEING AI
https://go.ddsoft.be/msftseeingai

MICROSOFT TRANSLATOR
https://go.ddsoft.be/msfttranslator

HELPICTO
https://go.ddsoft.be/helpicto

People can add images or adjust content as needed

THANK YOU POWERPOINT! HTTPS://GO.DDSOFT.BE/AIPPT

CALL: AI FOR ACCESSIBILITY

DEMO: (extra) inspirational Trigger

“The Future of Web Accessibility”

Research	In accessibility / People with disabilities
Learn	Microsoft Cognitive Services
Get	Further inspired
Play	With existing tools

Getting started

WRAP UP

Links & References

- Microsoft Seeing AI: https://go.ddsoft.be/msftseeingai
- Helpicto: https://go.ddsoft.be/helpicto
- Microsoft Translator movie: https://go.ddsoft.be/msfttranslator
- AI in PowerPoint: https://go.ddsoft.be/aippt
- Microsoft AI for Good: https://go.ddsoft.be/msftai
- Demo: ‘TextHelp’ on GitHub: https://go.ddsoft.be/texthelp

Thanks! | | Q&A

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- dennie@ddsoft.be
- @DennieDeclercq
- #DreamingIsBelieving