



# Accessibility

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# Agenda

The Global Reality

Inclusive Design Principles

Live Accessibility Demos

Web Standards &  
Implementation

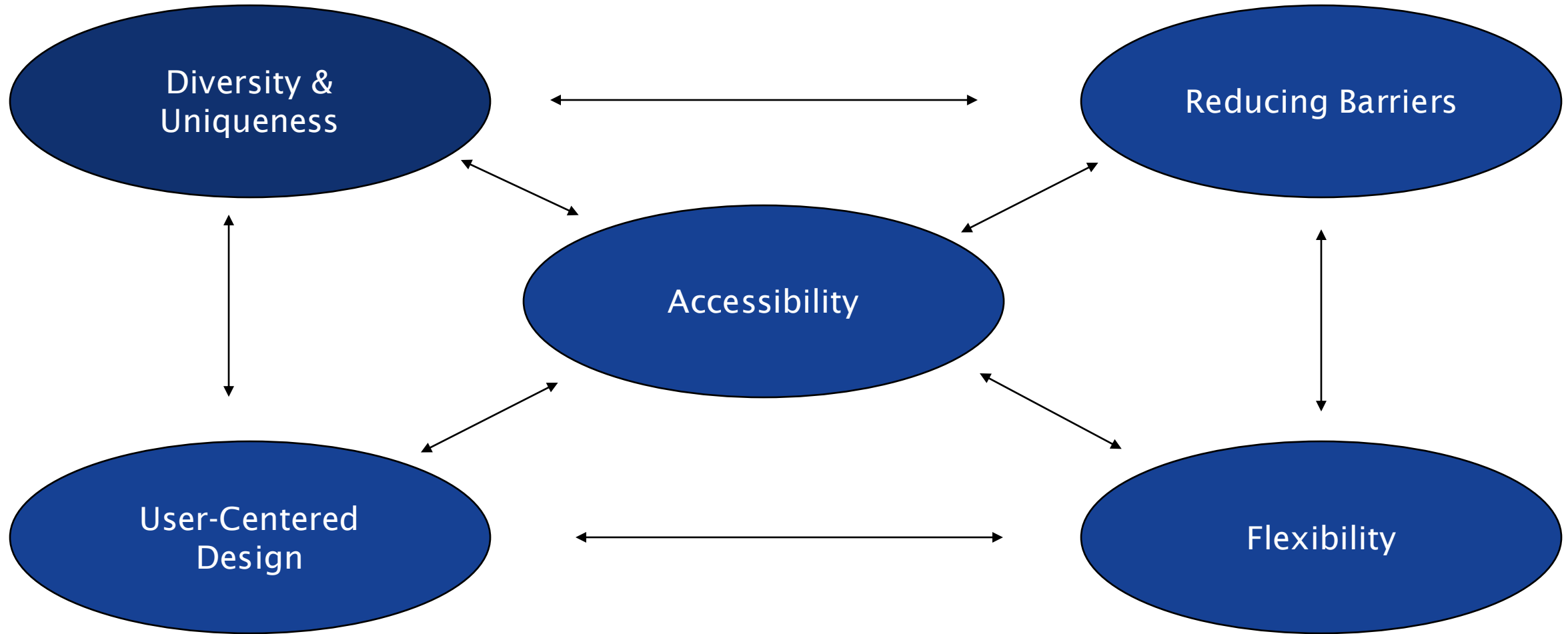
Microsoft's Framework

# The Global reality

## | 1.2 Billion People Can't Use Your Software

- **15% of world population** experiences disability
- **135 million Europeans** live with disabilities
- **96.3% of top websites** fail accessibility standards
- *Only 3.7% of websites are fully accessible*
- **Average 50 barriers** per homepage

# What is Inclusive Design ?



# Benefits of Inclusive Design

Why it matters for the Global market:

## Business Benefits

Improved User Experience



More user-friendly for everyone

Market Expansion



Reaches wider range of users globally

Beter Innovation



Diverse perspectives lead to better solutions

Increased Accessibility



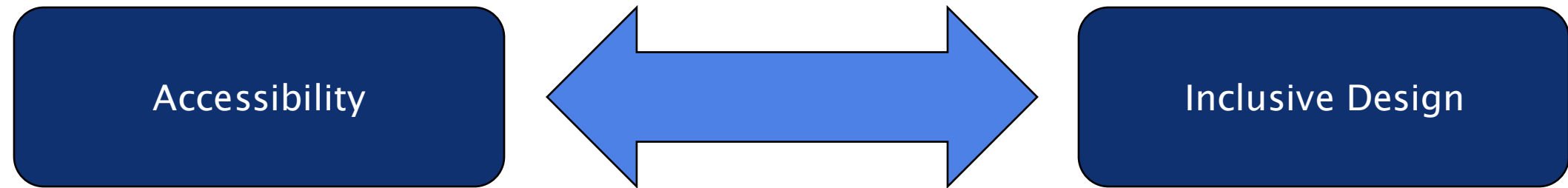
Expands product reach and usability

Reduced Costs



Prevents expensive retrofits and specialized solutions

# Key Relationship



- Accessibility is a core component of inclusive design

- Both focus on removing barriers and improving usability

- Inclusive design benefits everyone, not just people with disabilities

# The Disability Spectrum

## Three Types of Disabilities

"Everyone has abilities and limits. Creating products for people with permanent disabilities creates results that benefit everyone."

Situational

Temporary

Permanent

Bright  
Sunlight

Noisy  
environm  
ent

One-  
handed  
phone use

Eye  
infection

Broken  
Arm

Throat  
Surgery

Blindness

Deafness

Motor  
impairment

# Live Demo

## | Accessibility in Your Pocket

- **VoiceOver** - Screen reader navigation
- **Voice Control** - Hands-free interaction
- **Magnification** - Visual accessibility support



# VoiceOver - Screen reader navigation









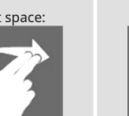


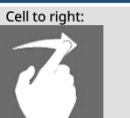
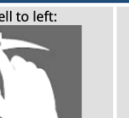


## Live Demo

### What it solves & how:

- **Blindness** - Complete audio navigation via semantic HTML
- **Low vision** - Audio reinforcement with proper labeling
- **Dyslexia** - Text-to-speech requires structured content

Try it yourself: *iPhone: Settings > Accessibility > VoiceOver... Android: Settings > Accessibility > TalkBack*

Getting Started				
Turn VO on/off (When setting is enabled):  Triple press side button (iPhone X and later)	Turn VO on/off (When setting is enabled):  Triple press home button (prior to iPhone X)	Pause or resume reading:  Two-finger tap	Start reading continuously from this point on:  Two-finger swipe down	Read entire page:  Two-finger swipe up
Read next item:  Swipe right	Activate link or button:  Double-tap	Go back, close popup, cancel last:  Two-finger scrub	Item Chooser:  Two-finger triple-tap	Navigate table cells:  Swipe up, down, left or right
Go to next list item:  Swipe right	Go to first item on page:  Four-finger tap upper half of screen	Scroll (vertically or horizontally):  Three-finger swipe up, down, left, or right	Go back one link, list, table, landmark, heading, etc.:  Swipe up	Help with current element:  Rotor (Hints), swipe up/down to enable hints

Forms				
Next form or button:  Rotor, swipe down	Select and deselect checkboxes, radio buttons, combo box options:  Double-tap	Next checkbox, combo box, radio button:  Rotor (Same item or form controls), swipe down	Open combo box:  Double-tap	Hear combo box options:  Drag finger through list
Text Editing				
Select/deselect text:  Pinch out/in	Copy the last spoken text to the clipboard:  Three-finger quadruple-tap	Change case:  Three-finger swipe up/down**	Insert space:  Two-finger swipe right**	Backspace:  Two-finger swipe left**
Table				
Go to next table:  Rotor, swipe down	Cell to right:  Swipe right	Cell to left:  Swipe left	Cell below:  Swipe down	Cell above:  Swipe up

# Voice Control - Hands-free interaction

## Live Demo

### What it solves & how:

- **Motor disabilities** - Voice commands replace physical interaction
- **Repetitive strain injuries** - Reduces hand/wrist strain
- **Temporary injuries** - Alternative input when hands unavailable

Try it yourself: *iPhone: Settings > Accessibility > Voice Control... Android: Settings > Accessibility > Voice Access*

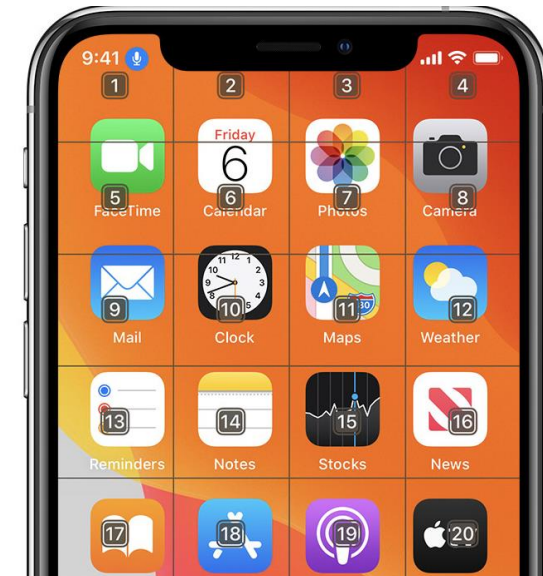
Show names



Show numbers



Show grid



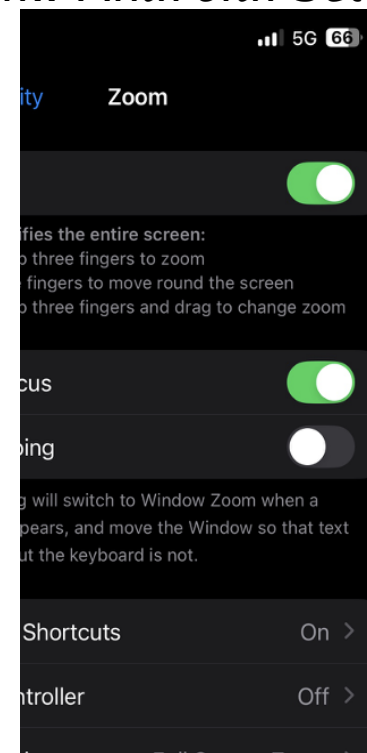
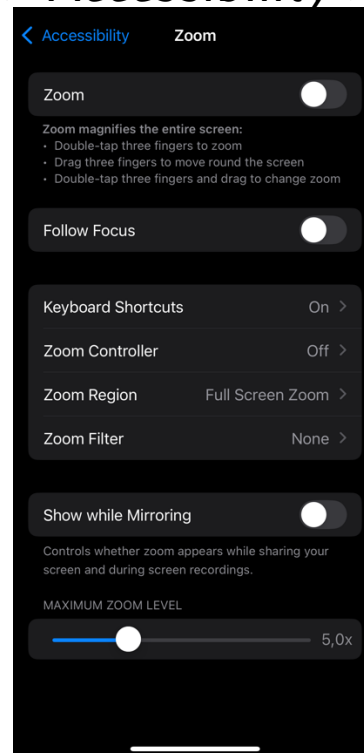
# Magnification - Visual accessibility support

## Live Demo

### What it solves & how:

- **Low vision** - Enlarges content while maintaining layout
- **Age-related decline** - Compensates for reduced visual acuity
- **Situational needs** - Bright sunlight, small screens, fatigue

Try it yourself: *iPhone: Settings > Accessibility > Zoom.. Android: Settings > Accessibility > Magnification*



# Web Accessibility Standards

## | WCAG 2.2 - The Global Standard

### Four Core Principles (POUR):

- **P** - Perceivable: Can users see/hear the content?
  - **O** - Operable: Can users navigate with keyboard/mouse?
  - **U** - Understandable: Is the language and UI clear?
  - **R** - Robust: Does it work across all technologies?
- 
- **3 Compliance Levels: A → AA → AAA**
  - **Most laws require Level AA**

### Inaccessible:

```
<div onclick="submit()">Submit</div>  
  
<input type="text" placeholder="Email">
```

### Accessible:

```
<button type="submit">Submit Form</button>  
  
<label for="email">Email Address</label>  
<input type="email" id="email" name="email">
```

# Microsoft's Three Principles:

1. **Recognize Exclusion** - *"Exclusion happens when we solve problems using our own biases"*
2. **Learn from Diversity** - *"Put people in the center throughout the process"*
3. **Solve for One, Extend to Many** - *"Creating products for people with permanent disabilities creates results that benefit everyone"*

# Conclusion

- 1.2 billion people need accessible software
- Inclusive design benefits everyone, not just people with disabilities
- Accessibility features are already in your pocket
- WCAG standards provide clear implementation guidelines
- Start with Microsoft's 3 principles: Recognize, Learn, Solve for One

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- Microsoft. (2024). *Designing Inclusive Software*. Microsoft Learn.

**Thank you for your attention**