

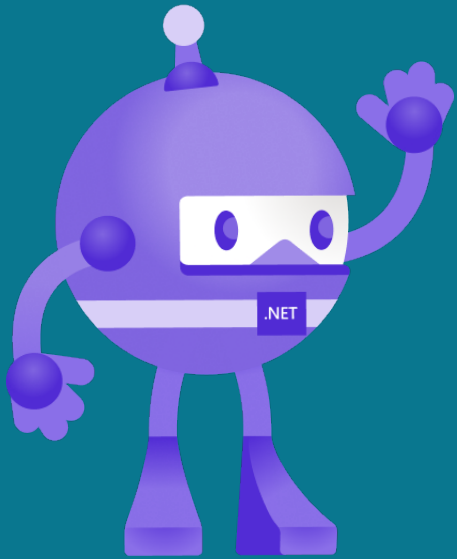
Let's Learn
.NET



Accessibility

May 21st, 2021
8:30 am Pacific

aka.ms/letslearndotnet



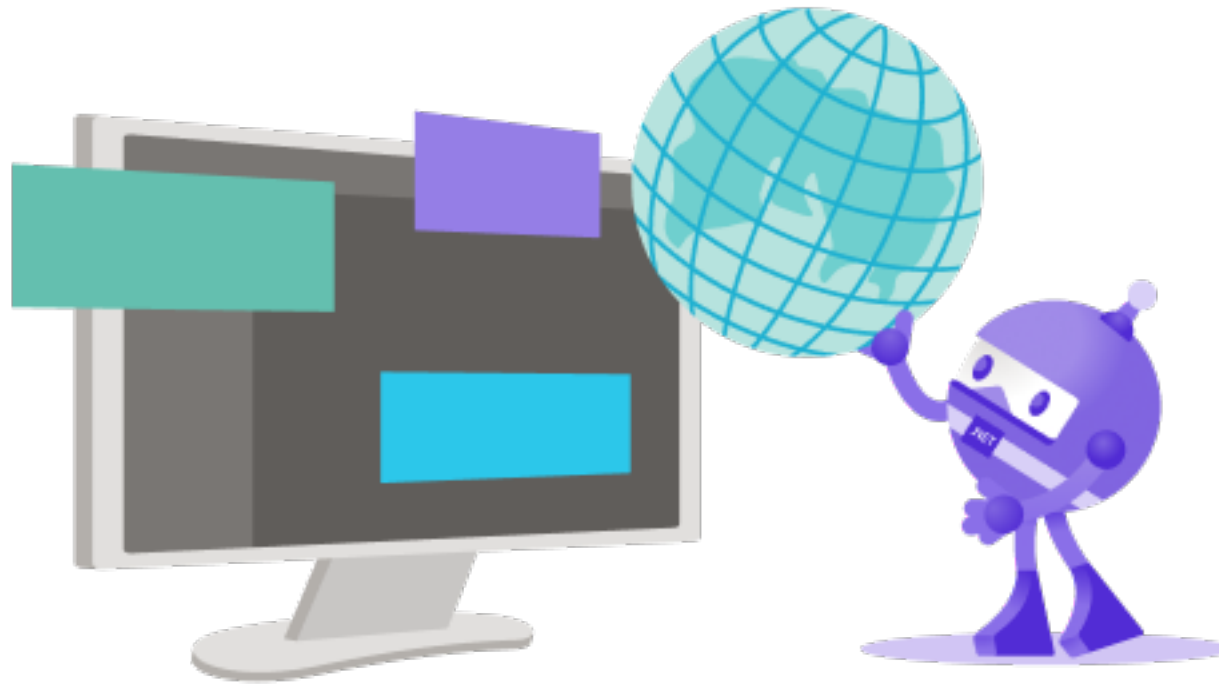
Introductions





Accessibility 101

Over 7.8 billion people
in the world today!



Education

Income

Life
Experiences

Age

Gender

Ability

Relig

Sexual
Orientation

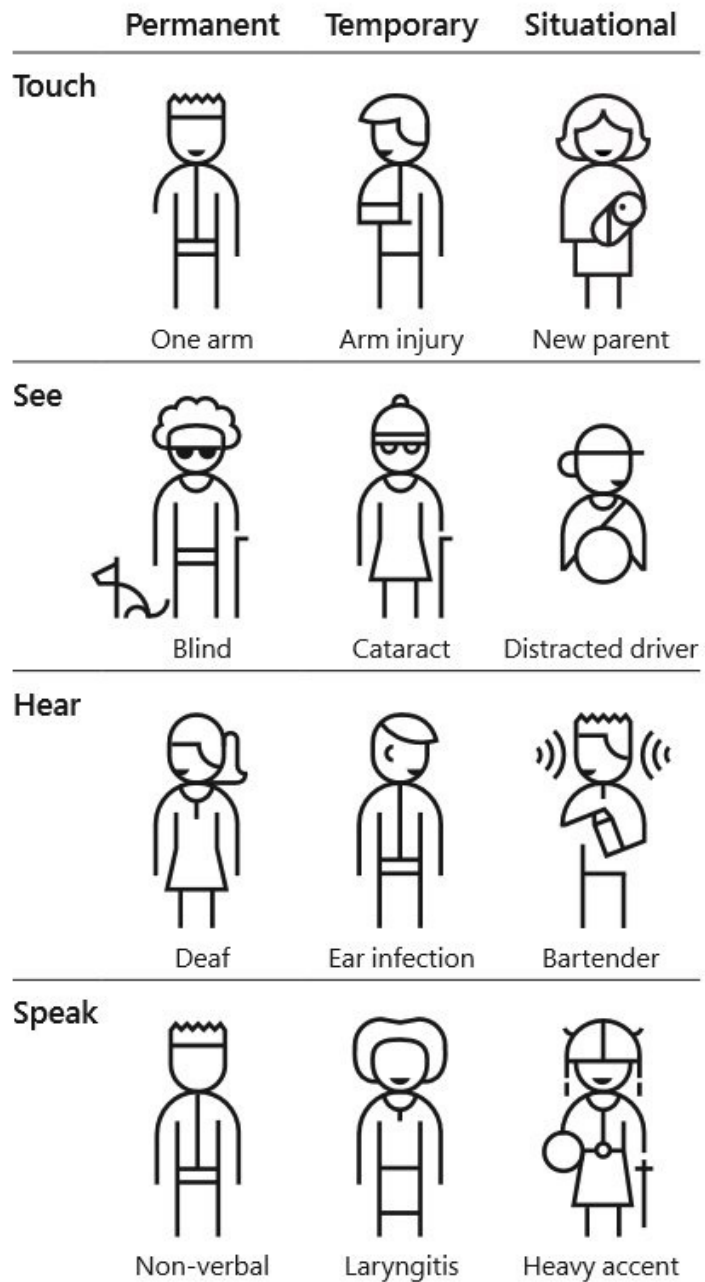
Ethnicity

Nationality



Ability

Over 1 billion people
currently experience
some form of disability



The Persona Spectrum

We use the Persona Spectrum to understand related mismatches and motivations across a spectrum of permanent, temporary, and situational scenarios. It's a quick tool to help foster empathy and to show how a solution scales to a broader audience.

<https://www.microsoft.com/design>

The Case for Accessibility

- Over 1 billion people currently experience some form of disability
- Designing for accessibility is not limited to people experiencing disabilities – **the best solutions benefit everyone**
 - Closed captioning on videos
 - Raise hand feature on Microsoft Teams
 - Dark mode on devices
 - Dropped curbs on sidewalks and driveways

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- Huge **business opportunity** – hundreds of billions

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- Huge business opportunity – hundreds of billions
- Growing number of **legal consequences**

Approaching Accessible Apps

- Web Content Accessibility Guidelines (WCAG)

- Global accessibility standard and legal benchmark for both web and mobile
- 4 principles

Perceivable

Information and user interface components must be presentable to users in ways they can perceive.

- Text alternatives
- Time-based media
- Adaptable
- Distinguishable

Operable

User interface components and navigation must be operable.

- Keyboard accessible
- Time limits
- Seizures and physical reactions
- Navigable
- Input modalities

Understandable

Information and the operation of user interface must be understandable.

- Readable
- Predictable
- Input assistance

Robust

Content must be robust enough that it can be interpreted by ...assistive technologies.

- Compatible

<https://www.w3.org/WAI/standards-guidelines/wcag/>

Approaching Accessible Apps

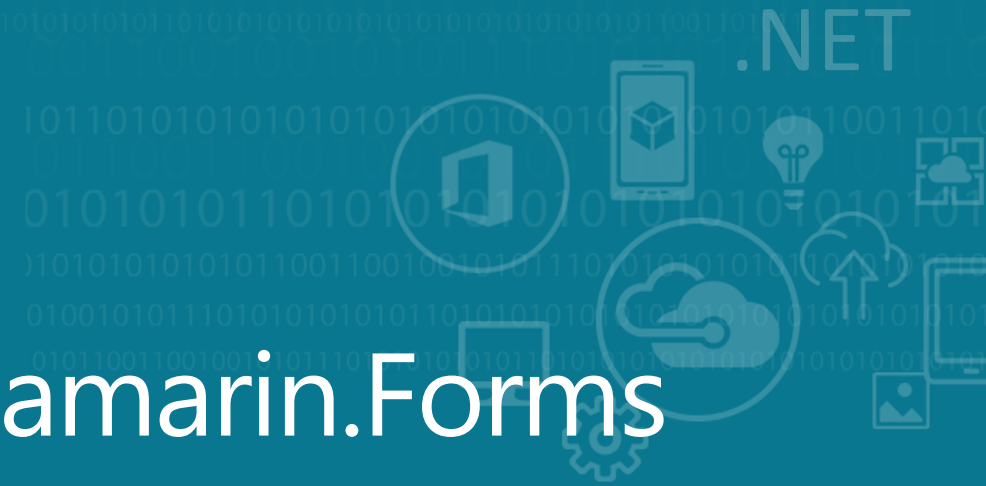
- **Empathy** is the name of the game
- Explore accessibility settings and features
 - Screen readers
 - TalkBack on Android
 - VoiceOver on iOS
 - Narrator on UWP
- Research accessibility models and APIs
- Test and leverage available tools/resources
- **We will be doing all of this today!**





Workshop I:

Create accessible apps with Xamarin.Forms



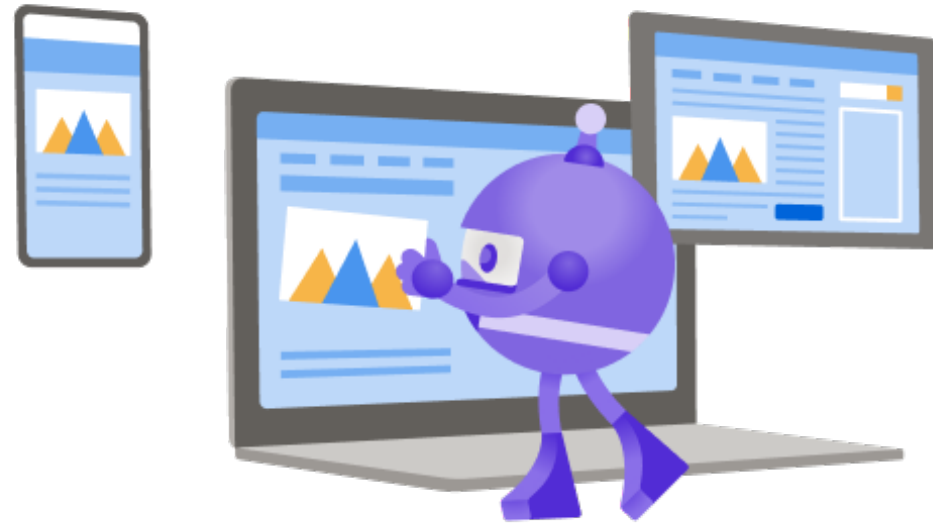
Prerequisites

- Familiarity with building and deploying Xamarin.Forms apps
- Familiarity with the concepts of accessibility, disability, and inclusion



Learning objectives

- Enable screen reader and navigation assistance tools
- Add automation properties to UI elements to improve accessibility
- Improve accessibility with meaningful content ordering



<https://letslearndotnet.splashthat.com>

[https://review.docs.microsoft.com/learn/modules/
xamarin-forms-accessibility](https://review.docs.microsoft.com/learn/modules/xamarin-forms-accessibility)

Stay tuned for more in .NET MAUI

- Improvements in Xamarin.Forms
 - Xamarin.Forms 5
 - Accessibility Experimental flag – including Android fixes
 - <https://github.com/xamarin/Xamarin.Forms/pull/14089>
- New accessibility APIs in .NET MAUI
 - SemanticProperties
 - .NET MAUI P3 and later
 - Xamarin Community Toolkit – latest preview!
 - <https://github.com/xamarin/XamarinCommunityToolkit/pull/1240>
 - A11yTools
 - <https://github.com/PureWeen/A11YTools>

Stay tuned for more in .NET MAUI

- GitHub
 - .NET MAUI repo <https://github.com/dotnet/maui/>
 - API specs <https://github.com/dotnet/maui/issues/469>
- Accessibility blog post series
 - <https://devblogs.microsoft.com/xamarin/the-journey-to-accessible-apps/>
 - Second post coming very soon!
- The Xamarin Show on Channel 9
- Monthly Accessibility Panels
- DotNetEvolution Discord
 - <https://aka.ms/dotnet-discord> #maui-accessibility

Thank you!



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