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Hello, we're Myplanet. We build the right thing, **fast**.



Beyond Screen Readers

Diverse Accessibility Needs in Custom Themes

WHO AM I

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AGENDA

WHAT I'LL COVER

1. Understanding Inclusive Design
2. Methods for Inclusive Design
3. Techniques for Identifying Concerns
4. Tactics for your Custom Themes

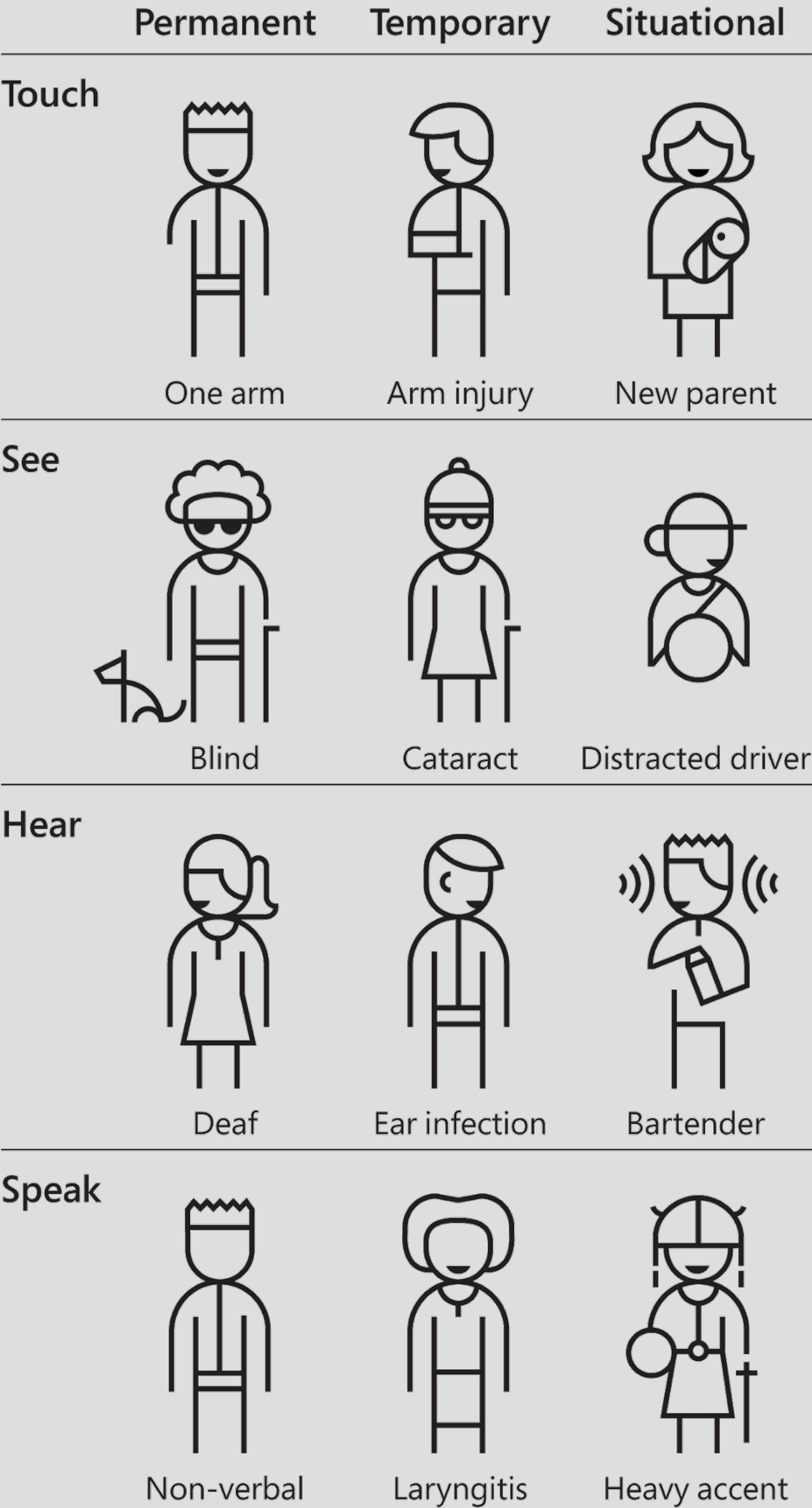
Understanding Inclusive Design

INCLUSIVE DESIGN

The mismatch between the **needs of the individual and the environment**, service or product offered.

Jutta Trevianus
(Inclusive Design Research Centre, OCAD U, Toronto)

(Image: The Persona Spectrum from Microsoft’s Inclusive Design Toolkit)



WEB CONTENT ACCESSIBILITY GUIDELINES 2.0

“Following them will also make **Web content more available to all users**, whatever user agent they are using”

LEVEL A (Priority 1)

- A Web content developer **must** satisfy this checkpoint.
- Otherwise, one or more groups will **find it impossible** to access information in the document.

LEVEL AA (Priority 2)

- A Web content developer **should** satisfy this checkpoint.
- Otherwise, one or more groups will **find it difficult** to access information in the document.

LEVEL AAA (Priority 3)

- A Web content developer **may** address this checkpoint.
- Otherwise, one or more groups will **find it somewhat difficult** to access information in the document

INCLUSIVE DESIGN SME SERIES FEATURING ROSEMARIE



Methods for Inclusive Design

TECHNIQUES

User testing **examines behaviours & attitudes** relevant to the workflow

UX TESTING

- Pairs of researchers meet with individual users, asking questions about assumptions
- Connecting with under represented groups can help build empathy

“BRING YOUR OWN DEVICE”

- Assistive tech varies between platforms
- Identify the interaction between ability and technology

IN-PERSON AND REMOTE

- In-person testing allows for more granular data
- Remote testing give a voice to underserved communities.

TECHNIQUES

Accessibility work starts **well before development begins**, and **continues long after**

CONTENT AUTHORIZING

- Training!
- CKEditor Accessibility Checker module
- Frequent Audits by team members
- Drupal 8 Content Authoring Defaults

DESIGN TOOLS

- Training!
- WebAIM Accessibility Checklist
- Sketch Color Contrast Analyser
- CSS Peeper Inspector

Techniques for Identifying Concerns

IDENTIFICATION

Automated testing can help identify compliance issues

DEV OPS

- Behavioral Driven Development
- Tenon.io API
- Axe-Core Engine

DEV TASKS

- WAVEToolbar Plugin, by WebAIM
- Tota11y Plugin, by Khan Academy
- Devel A11y module

IDENTIFICATION

Manual testing can help identify problematic interactions

SIGHT

- Colorblindness
- Screenreaders
- Low vision
- Bullet Item

SOUND

- Language
- Audio
- Speech
- Captioning

TOUCH

- Keyboard
- Mouse
- Touch
- Alternative Methods

Tactics for your Custom Themes

LANDMARK LABELS

Add descriptive aria labels to landmarks.

```
<main role="main" aria-label="{{ 'Content'|t }}">
```

HEADING LEVELS

Set the heading level contextually, so that you have the correct order.

```
<{{ h }}{{ title_attributes.addClass("node--title--#{h}") }}>  
  <a href="{{ url }}" rel="bookmark">{{ title }}</a>  
</{{ h }}>
```

FORM ERRORS

Enable Inline Form Errors, & remove HTML5 required attribute.

```
function THEME_preprocess_FORM_ELEMENT($variables) {  
  if (isset($variables['attributes']['required'])) {  
    unset($variables['attributes']['required']);  
  }  
}
```

PICTURE ELEMENTS

Add Alternative text to picture elements.

```
<picture>
  ...
  {% if alt %}
    <p class="visually-hidden">{{ alt }}</p>
  {% endif %}
</picture>
```

RELATE BLOCK TITLES & LABELS

Use aria-labelledby on blocks to give context.

```
{% set cta_id = 'call-to-action' %}
<a
  id="{{ cta_id }}"
  class="btn btn-default"
  href="{{ content.field_link[0]['#url'] }}"
  aria-labelledby="{{ cta_id }} {{ heading_id }}">
    {{ 'Learn More'|t }}
</a>
```


iNCLUSION

The power of the web is in its
universality.

Tim Berners-Lee

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iNCLUSION

Diverse teams are more likely
to **constantly reexamine facts**
and remain objective...
keeping their joint cognitive
resources sharp and vigilant.

Harvard Business Review, [Why Diverse Teams are Smarter](#) (2016)



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Thank you.

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DRUPAL NORTH



DRUPAL NORD

Drupal North is a free 3-day conference on
building Drupal & supporting the Community that drives it.

July 28 – 30, 2017 at the Ottawa Conference & Event Centre
Ottawa, Ontario, Canada

drupalnorth.org