




User stories for accessibility

Accessibility in an agile world?

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What is Agile?

Agile is ...

A development methodology that is

- Iterative
- Incremental
- Evolutionary

Rather than specification driven with a long development phase that thinks about the user at the end

Agile is ...

The *Manifesto for Agile Software Development* values

- **Individuals and Interactions** over processes and tools
- **Working Software** over comprehensive documentation
- **Customer Collaboration** over contract negotiation
- **Responding to Change** over following a plan

Leading to opportunities to incorporate, and adjust to, user needs as they are discovered



Image courtesy of @DTA

Agile is ...

... a collection of

values, principles, behaviours, and practices

enabling teams to build services iteratively, delivering early and often.

Agile is a **state of mind** rather than a process to be followed

Courtesy [@RodBMolina](#)

How does Agile work?

Agile operating model

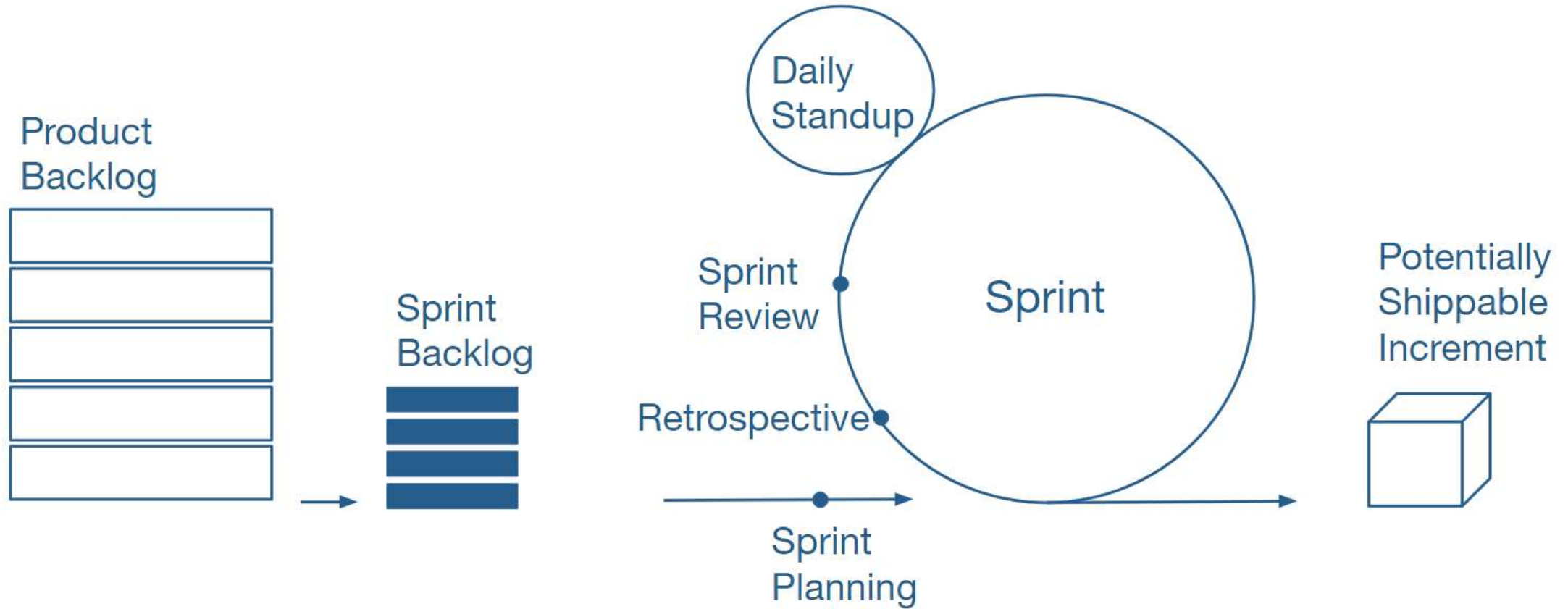


Image courtesy of @DTA and @RodMolina

Agile workflow

Agile often involves a series of iterations or sprints

Work for each sprint is defined in a 'user story' expressed from the perspective of an end-user goal:

as a [role / person]

I want / need [some requirement or feature]

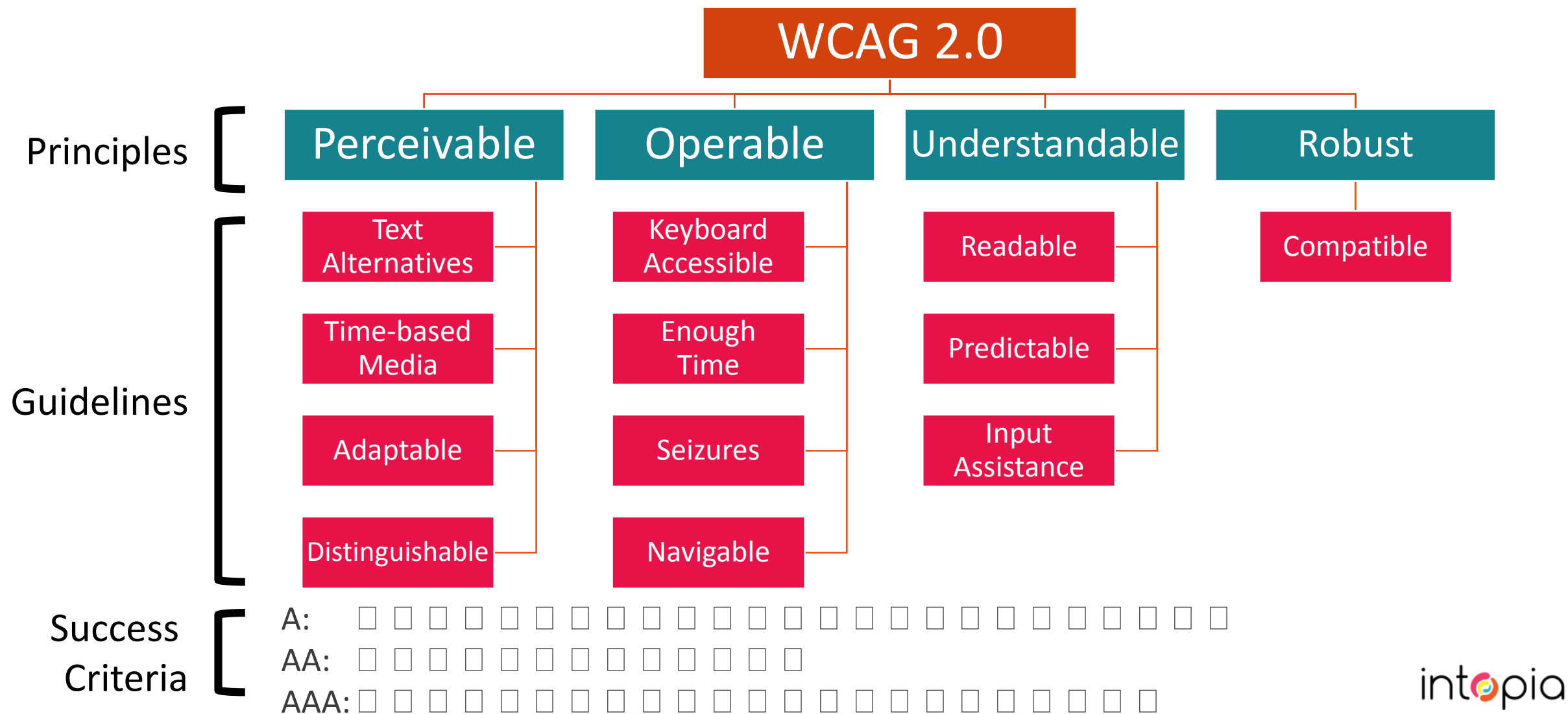
so that [goal / value / reason]

Benefits of user stories

- Define problems faced by people with varying ability
- Articulate user's needs clearly
- Less prescriptive than requirements documentation
- Result in shared understanding of the outcome for the user
- Promote discussion and collaboration

When applied to accessibility for people with disability, they can help demystify WCAG

WCAG 2.0 framework





Completing a user story

Teams have a checklist of criteria which must be met before a user story can be considered “done”

Definition of Done

For role based stories can include

- Feature is tested for accessibility

For person/persona based stories

- Features works for the user with their technology or limitations

User stories for accessibility

Components of a user story

- The user
 - A real person from user research or usability testing
 - A persona that has a disability or impairment
- The outcome when interacting with the system
- The goal or value that is delivered

Common Persona Attributes

- **Name:** naming your persona makes them more real.
- **Motivations:** why would the user use your product?
- **Goals:** what do they want to achieve, and how can your product help?
- **Frustrations:** what problems does your user have with certain tasks?
 - This is where disability or impairment can be described along with assistive technology or adaptive strategies used
- **Demographics:** age, gender, location, occupation.
- **Picture:** giving the user a face makes them more real and relatable.
- **Quote:** what memorable quote sums up your user and the problem you want to solve for them?

Attributes for Diverse Personas

Alternatively, add additional diversity related attributes

- **Ability:** the level of ability the user has – do they have any impairments?
- **Aptitude:** how experienced is the user with the web?
Do their abilities create any specific difficulties when using a computer?
- **Attitude:** what are their attitude towards life, or towards the web?
- **Access points:** does this user need assistive technologies or rely on adaptive strategies to access the web?



Diverse Personas

Issue 1



Sample user stories

As a sighted non-mouse user I need better keyboard focus so I can see where I am in a page as I tab through it

As a sighted user with poor concentration I need visible labels on all form fields so I can understand what information is requested

As a sighted user with cognitive issues I need all instructions to appear on screen and specify the exact requirements so I can understand all information needed

Sample user stories

As a screen reader user I need alt-text on informative images so I can understand all the important information on a page

As a screen reader user I need all link text to be meaningful so that I can navigate more easily

As a low vision user or colour deficient user I need more obvious link indicators so I can see where to click on a page

Sample user stories

As a hearing-impaired person, I need captions on the videos in order to fully understand the eLearning modules

As a low vision user, I need to increase the font size in order to read the screens

As a front-line user under pressure to meet KPIs I need clear link text in order to know intuitively where to go next


Helping specify the requirement

To help the developers implement the user stories correctly

- Add an explanation of the issue on the page
- Add a possible solution to resolve the issue
- Prioritise the issue
- Reference the WCAG Success Criteria (if applicable)
 - Point to the Quickref (not the TR)

Skip Links

Epic	As a 'keyboard (tab-key) navigation user' I need 'some "skip links"' to 'help me navigate more quickly'
Notes	Obvious one is 'skip to content' at top of page, but maybe need 'skip' related to filters etc too

Ref	Work needed	Examples	Notes
SL1	<p>As a keyboard (non-mouse) user on a product listing page, I can quickly get to the product listing area without having to navigate the main menu every time.</p> <ul style="list-style-type: none">• add 'Skip to main content'• see requirement SH2 for main content heading suggestion	<p>Having a 'skip link' at the start of the page avoids the main menu</p> 	<p>This will help all non-mouse users:</p> <ul style="list-style-type: none">• screen reader users• sighted keyboard users• Dragon 'speech to text' users <p>'Skip to main content' link can be hidden until tabbed to, however while tabbing users will reveal it, Dragon users may not discover it.</p> <p>Make sure the skip link text is large enough for low vision users and has good contrast.</p>
SL2	<p>As a keyboard (non-mouse) user on a product listing page, after I get to the main content area I can quickly get to the:</p> <ol style="list-style-type: none">1. filters2. sort options3. product listings	<p>Having 3 x 'skip link' at the start of the product listing area allows rapid navigation for non-mouse users.</p> <p>The skip link text could be:</p> <ol style="list-style-type: none">1. Skip to product list2. Skip to product filters3. Skip to sort options	<p>Again, pros and cons of hiding the 'skip links' - <i>pragmatically</i> so as not to mess with current design, these can be hidden from mouse users and only appear when they receive keyboard focus.</p>
SL3	<p>As a keyboard (non-mouse) user trying to access the filters, some additional 'skip links' would assist</p>	<p>The skip link text could be:</p> <ol style="list-style-type: none">1. Skip to type filter2. Skip to price filter3. Skip to size filter4. etc	<p>Note that the filter lists can be very long on some pages</p> <p>NOTE: some filters are not filters <i>per se</i></p>

Create an understanding of disability

Have a team presentation / discussion about diversity

- Talk about ageing, culture, disability and the overlaps
- Watch the W3C Perspectives videos

Make diversity and disability real by

- Relating to grandparents
- Discussing personas
- Including team in usability sessions

Point out that accessibility IS usability for some

‘Accessibility is just the beginning. It is **usability** that makes the difference.’

Patti Moore
UX Australia keynote 2016

‘**Wasting time** is the worst customer experience’

Gerry McGovern, 27/3/17
<http://gerrymcgovern.com/wasting-time-is-the-worst-customer-experience/>

Definition of done

Definition of done

For role based stories can include

- Feature is tested for accessibility

For person/persona based stories

- Features works for the user with their technology or limitations

More specifically

- All tasks finished (with the ability of the user in the story)
- All tests passed (including using the feature with the user's ability)
- Code checked in to version control

Would this pass?

The image shows a 'Sign in' page with several accessibility issues highlighted by red lines:

- A red line connects the top of the page to the 'Sign in' heading.
- A red line connects the 'Sign in' heading to the 'Email Address' input field.
- A red line connects the 'Email Address' input field to the 'Password' input field.
- A red line connects the 'Password' input field to the 'Sign in' button.
- A red line connects the 'Sign in' button to the 'Forgot your password?' link.
- A red line connects the 'Forgot your password?' link to the 'Register now' button.
- A red line connects the 'Register now' button to the 'Sign in' button.
- A red line connects the 'Sign in' button to the 'Email Address' input field.
- A red line connects the 'Sign in' button to the 'Password' input field.
- A red line connects the 'Sign in' button to the 'Sign in' button.

The page content includes:

- Header: **Sign in**
- Text: Welcome! Sign in below with your email address and password to:
- Text: **access** digital services on the **business.gov.au** website
- Text: **save** your progress
- Text: **store** all your data securely.
- Text: **Need to create an account?** [Register now](#)
- Text: **Have an account? Sign in:**
- Form: Email Address
- Form: Password
- Text: [Forgot your password?](#)
- Text: [Sign in](#)
- Footer: [About](#) [For Government](#) [Legal notices](#) [Accessibility](#) [Other languages](#) [Contact us](#)
- Footer: [business.gov.au](#)

Let's continue the conversation

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