

Using WAI-ARIA to Provide More Context



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A ccessible

R ich

I nternet

A pplications

WAI-ARIA



Web Accessibility
initiative

An Interactive Menu Hierarchy

Home	
Topics	—
HTML	
JavaScript	
C#	+
CSS	
Blog	+

```
<ul>  
  <li>Home</li>  
  <li>Topics  
    <ul>  
      <li>HTML</li>  
      <li>JavaScript</li>  
    </ul>  
  </li>  
</ul>
```

An Interactive Menu Hierarchy

Home	
Topics	—
HTML	
JavaScript	
C#	+
CSS	
Blog	+

◀ It's a tree menu

◀ Topics is expanded

◀ JavaScript is currently selected

◀ Blog isn't expanded

ARIA Attributes

Roles

`role="menuitem"`

States

`aria-selected="true"`

Properties

`aria-haspopup="true"`

Attributes and JavaScript



`aria-selected="true"`

`aria-expanded="false"`

Attributes and JavaScript

Home	
Topics	+
HTML	
JavaScript	
C#	+
CSS	

`aria-selected="true"`
`aria-expanded="true"`

HTML 5
<button>

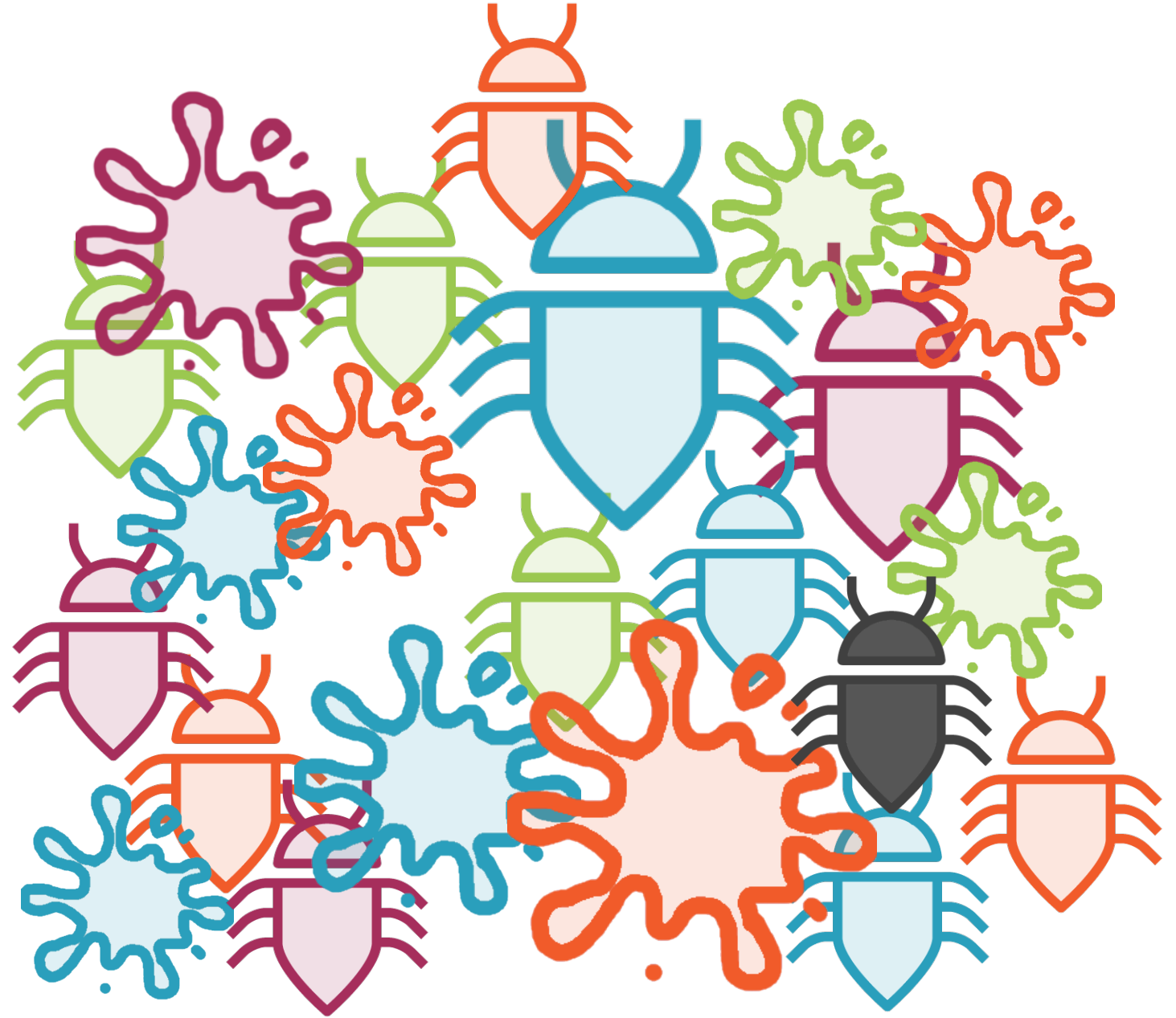
ARIA
role="button"



ARIA is just for exposing
info to screen readers – it
doesn't influence browser
behaviour

Issue 10

Form Field
Labels



ARIA Labelling Attributes

```
<input type="text" aria-label="Name" />
```

Defines the label text for a control

```
<input type="text" aria-labelledby="LabelId" />
```

States that the control is labelled by another control

Issue 11

Form Field
Instructions





ARIA Described By

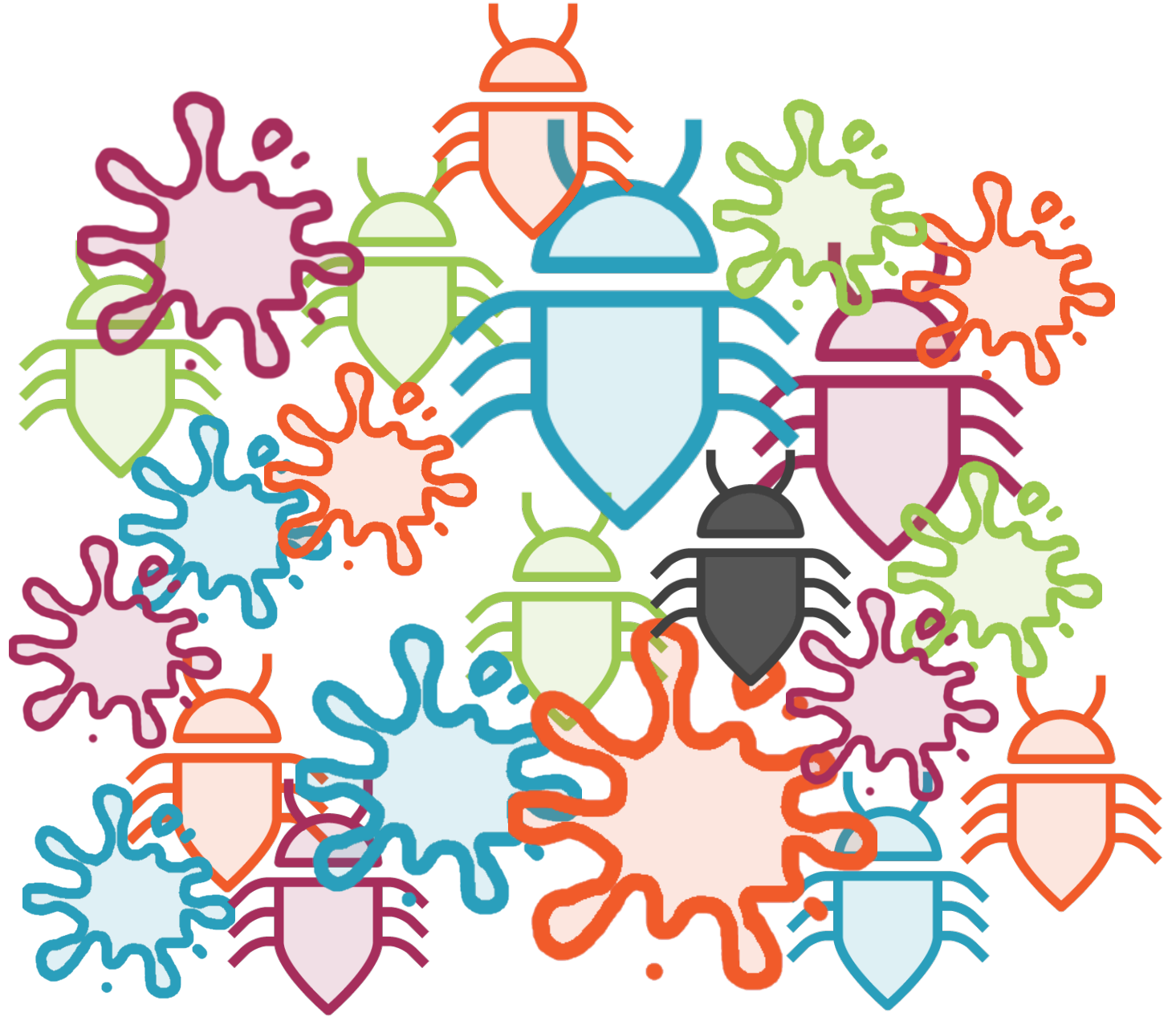
```
<input type="text"  
      aria-describedby="ControlId" />
```

References an element ID that has further description for the control

Used in addition to a label

Issue 12

Announcing
Updates



Announcing Updates

Sites can have elements that update or appear without the page reloading

Chat windows, status bars, errors and countdown timers

Before ARIA, no simple way to alert screen reader users



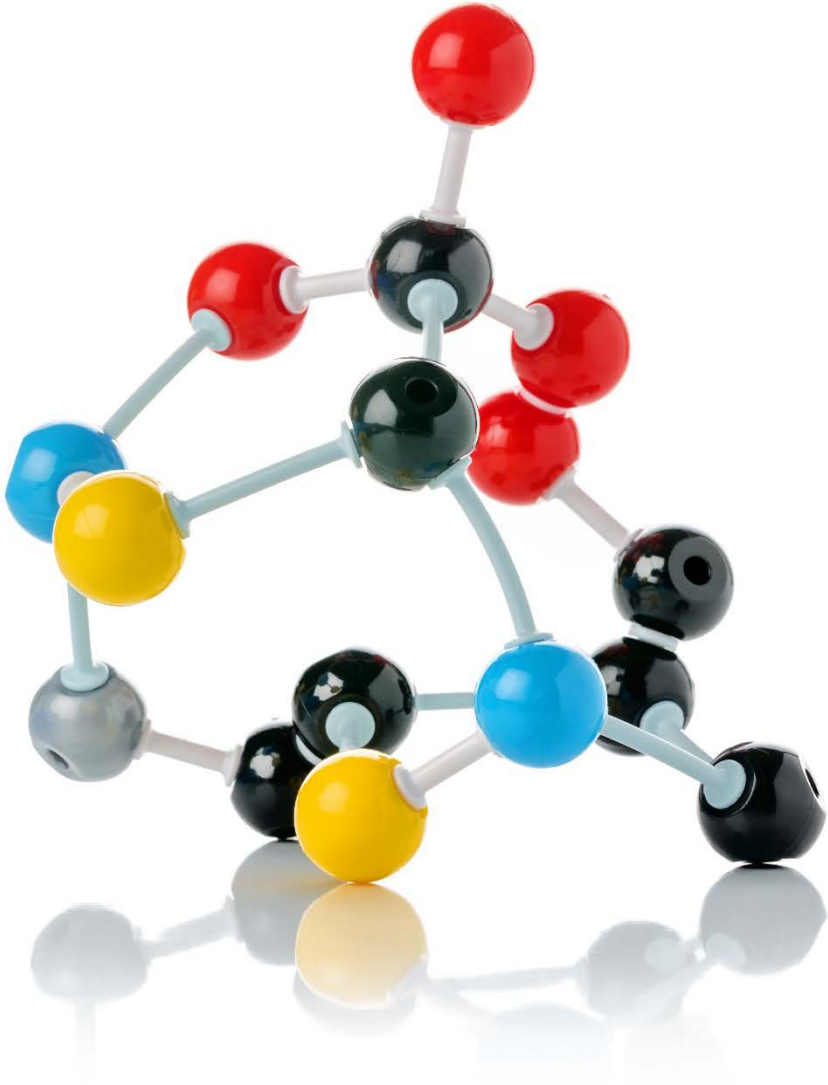
ARIA Live Importance

```
<div aria-live="polite">
```

```
<div aria-live="assertive">
```



ARIA Atomic



```
<div aria-atomic="true" >
```

Controls which aspects of the live region are read out

False means only the elements that changed

True means all the child elements

ARIA Busy



With several updates, the screen reader may notify user before fully complete

Setting aria-busy to true during the updates forces it to wait

```
<div aria-busy="true" >
```

Issue 13

Links for
Buttons



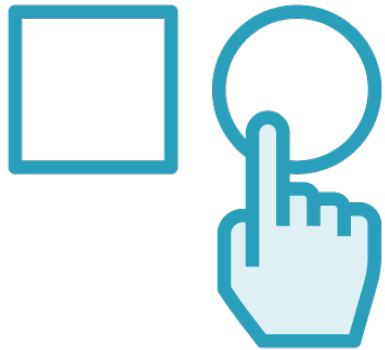
WCAG 1.3.1



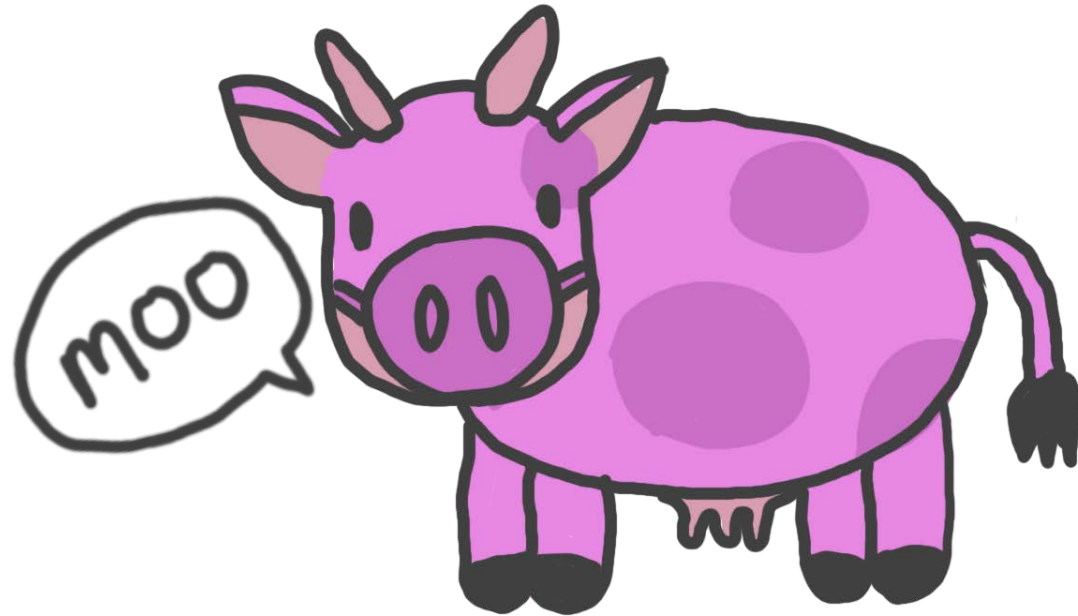
Level
AA

Level
AAA

Info and
Relationships



Information conveyed through presentation
can be programmatically determined



Semantic HTML

Instead of a link pretending to be a button, use a button

Choose the right HTML element for the job

Browsers and screen readers can make them work as you'd expect

Use the new HTML5 landmark elements like `<nav>` and `<main>`



Be Careful with ARIA Roles

We could add a role of button to our link

Not semantic HTML, just use the button element

ARIA roles are primarily for custom widgets, use HTML5 elements where possible

Module Review



What is
ARIA?



Custom
Widgets



Labelling
Fields



Instruction
Text



Live
Regions



Semantic
HTML

