

Making <form>s accessible



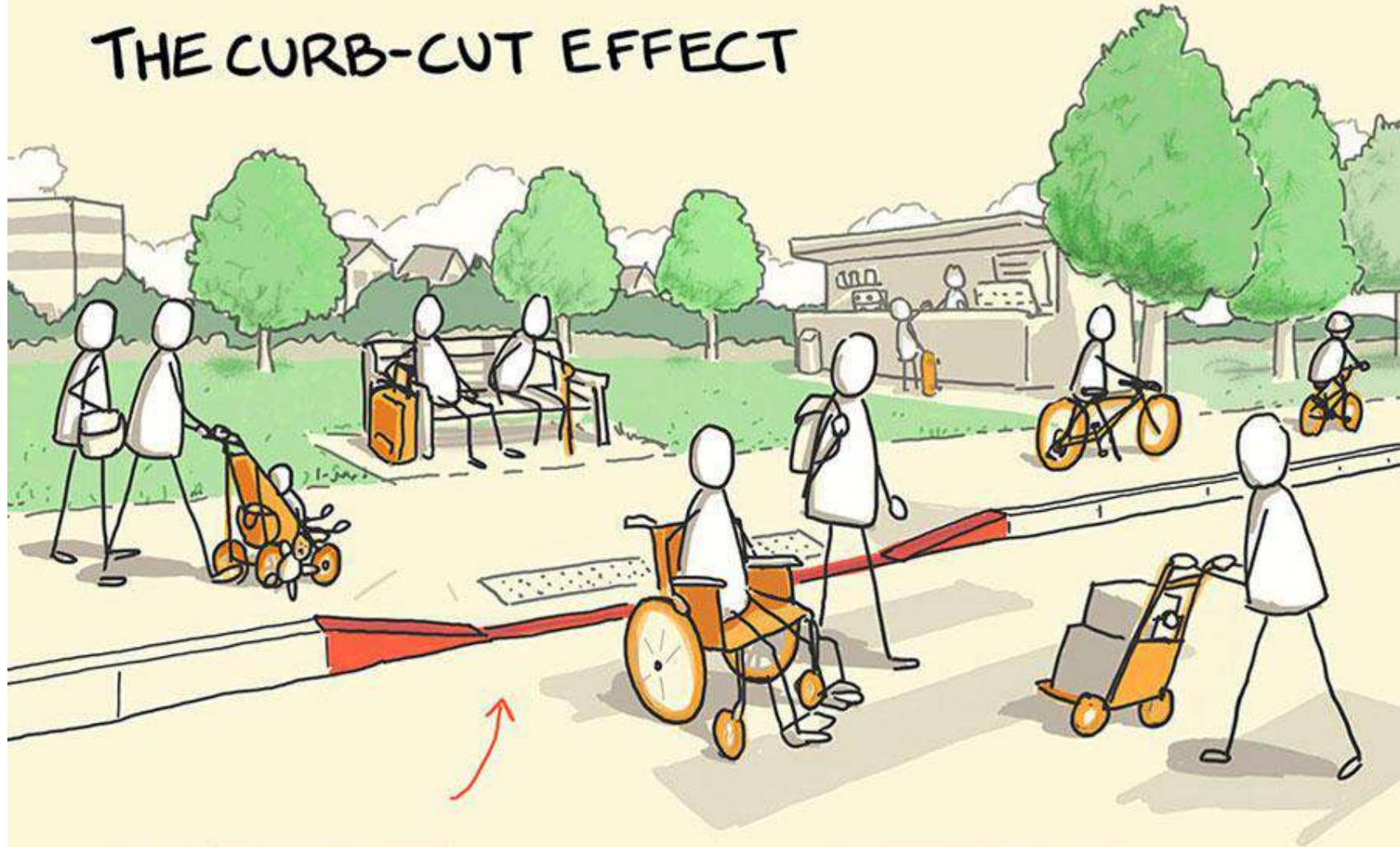
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ABN AMRO x PP Meetup

Tim Damen

- FE Dev
- Accessibility guild lead



THE CURB-CUT EFFECT



WHEN WE DESIGN
FOR DISABILITIES

... WE MAKE THINGS
BETTER FOR EVERYONE

sketchplanations

Form Accessibility

Field validated on submit

*Fill the required fields

Email*

Invalid email.

Phone number*

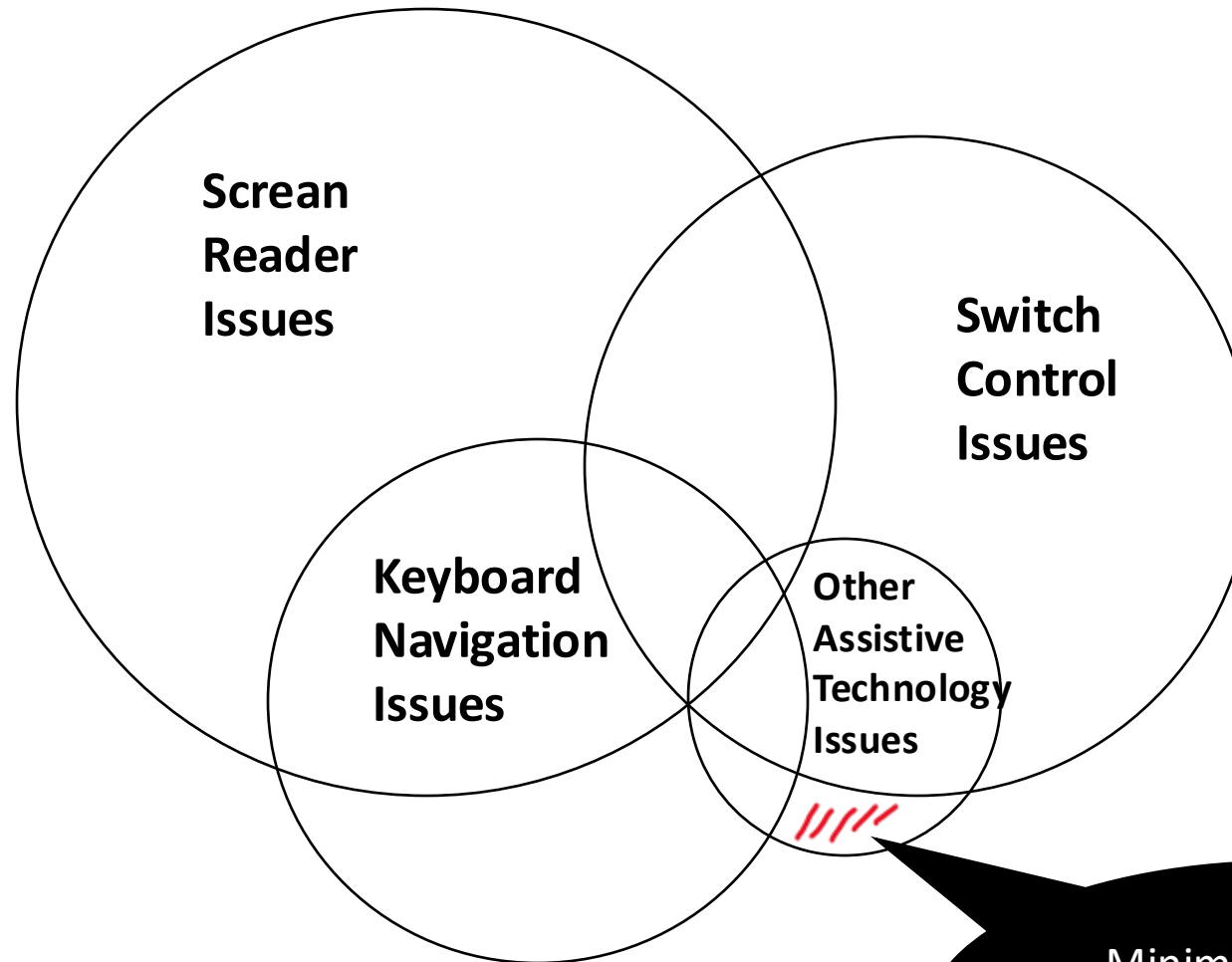
Phone required.

For demo purposes, must start with 9.

Failed to save because 2 fields are invalid.

Save

All Accessibility Issues (web)



Minimal benefit to
focus on other types of
assistive technology



Label not linked to input

*Fill the required fields

Email*

Phone number*

Phone number must start with 06.

Save



<label>
<input t



Label linked to input

*Fill the required fields

Email*

Phone number*

For demo purposes, must start with 06.

Save

Wake up



Sleep

<label f
<input f



```
<label for="phone">Phone number*</label>  
<input id="phone" type="phone"/>
```

A screenshot of a web browser window. The browser has a single tab with a light blue header bar. Below the header, there is a navigation bar with back, forward, and refresh icons. The main content area is white and contains a form. At the top of the form, there is a light gray box with the text '*Fill the required fields'. Below this, the text 'Phone number*' is displayed. Underneath the text is a white rectangular input field with a thin gray border. At the bottom of the form, there is a dark gray rounded rectangle with a white border. Inside this rectangle, on the left, is a white 'X' icon followed by the text 'Phone number*, edit text'.



```
<label for="phone">  
  Phone number<span aria-hidden="true">*</span>  
</label>  
<input type="phone" id="phone"/>
```

A mockup of a web browser window. The browser has a single tab with a light blue header bar containing back, forward, and refresh icons. The page content includes a light gray box with the text "*Fill the required fields". Below this is a label "Phone number*" followed by an empty text input field. At the bottom, a dark gray error message box is displayed with a white 'X' icon and the text "Phone number, edit text".

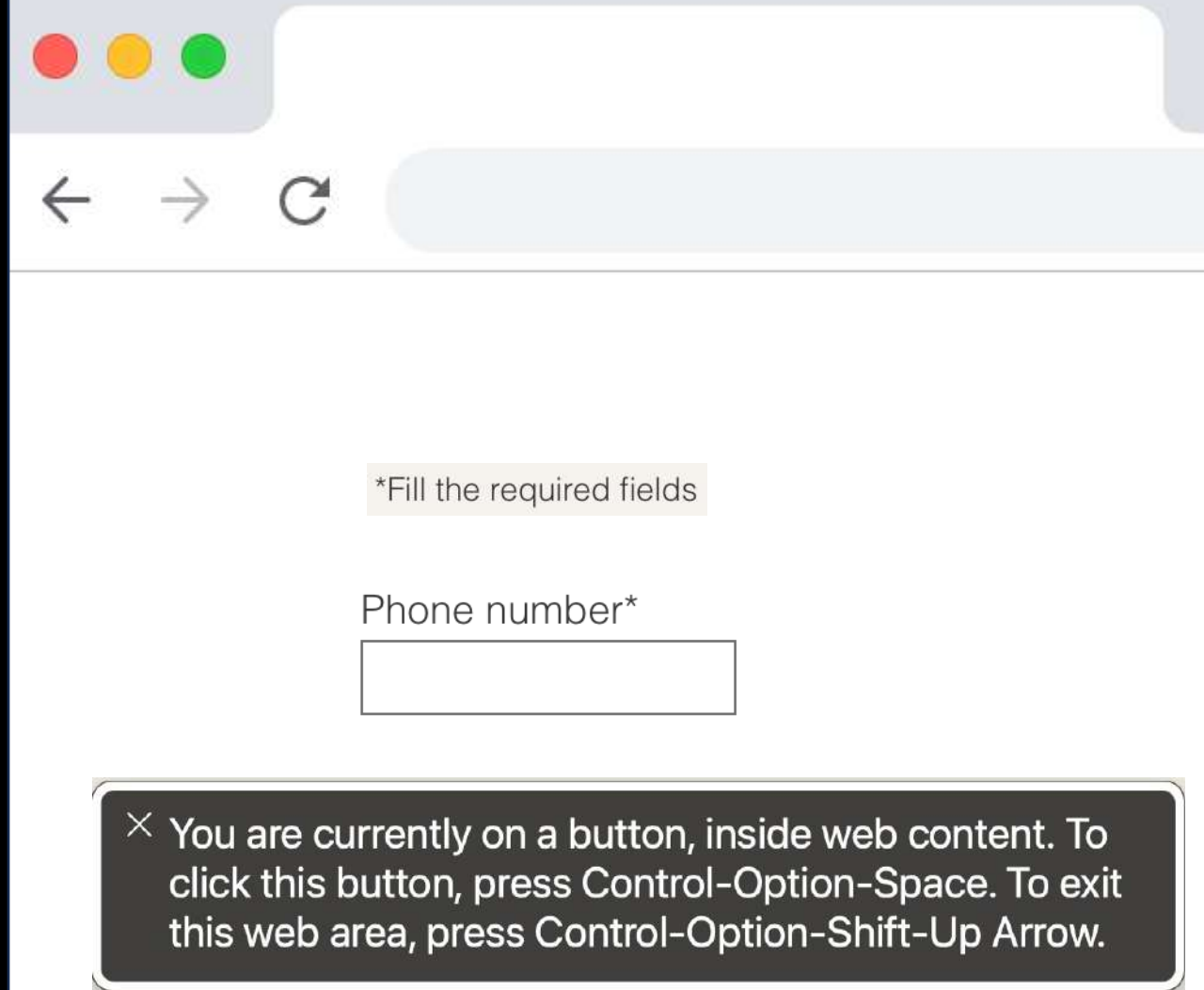
*Fill the required fields

Phone number*

× Phone number, edit text



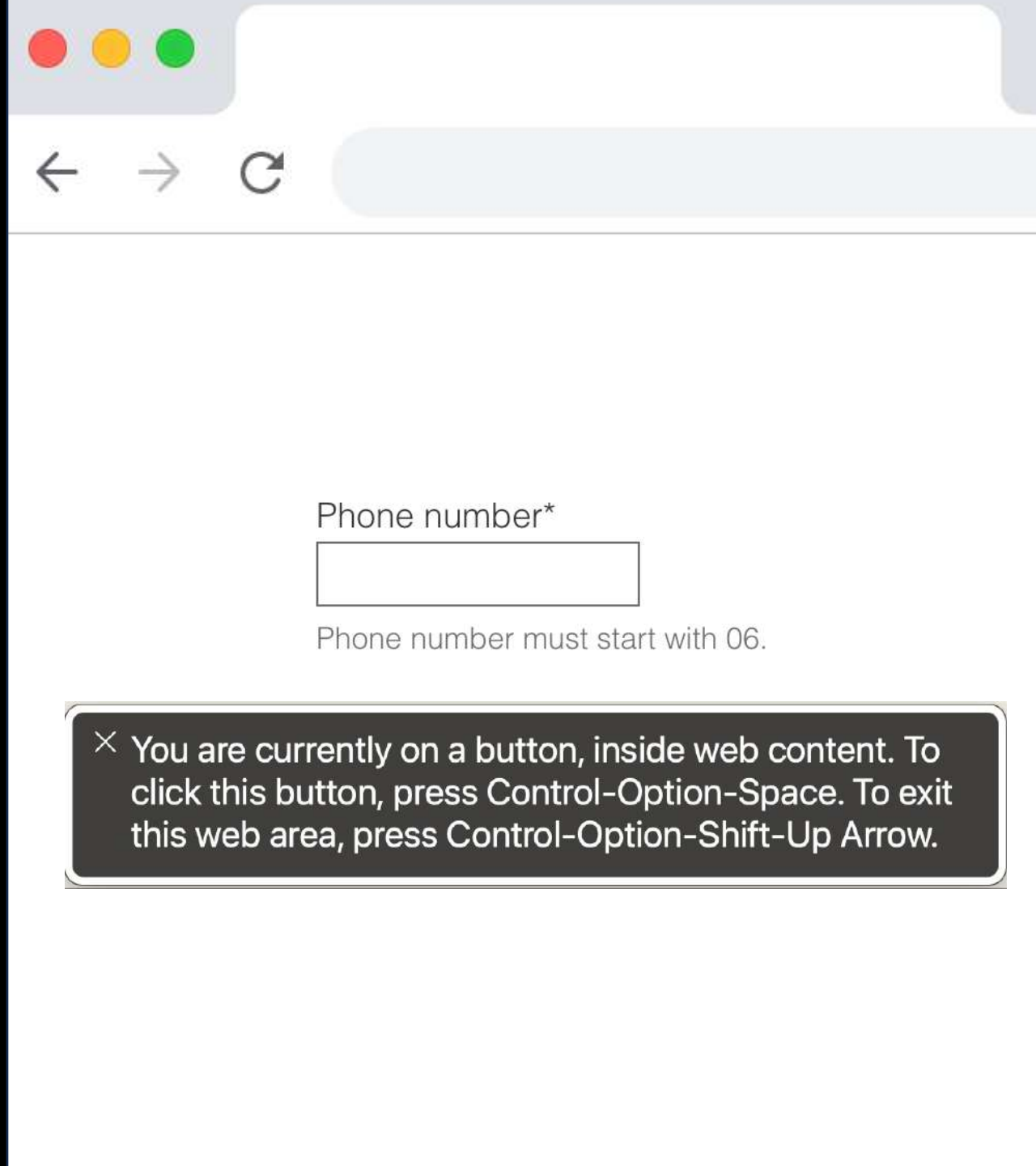
```
<label for="phone">  
  Phone number<span aria-hidden="true">*</span>  
</label>  
<input type="phone" id="phone" aria-required="true"/>
```





```
<label for="phone">
  Phone number<span aria-hidden="true">*</span>
</label>
<input
  type="phone"
  id="phone"
  aria-required="true"
/>

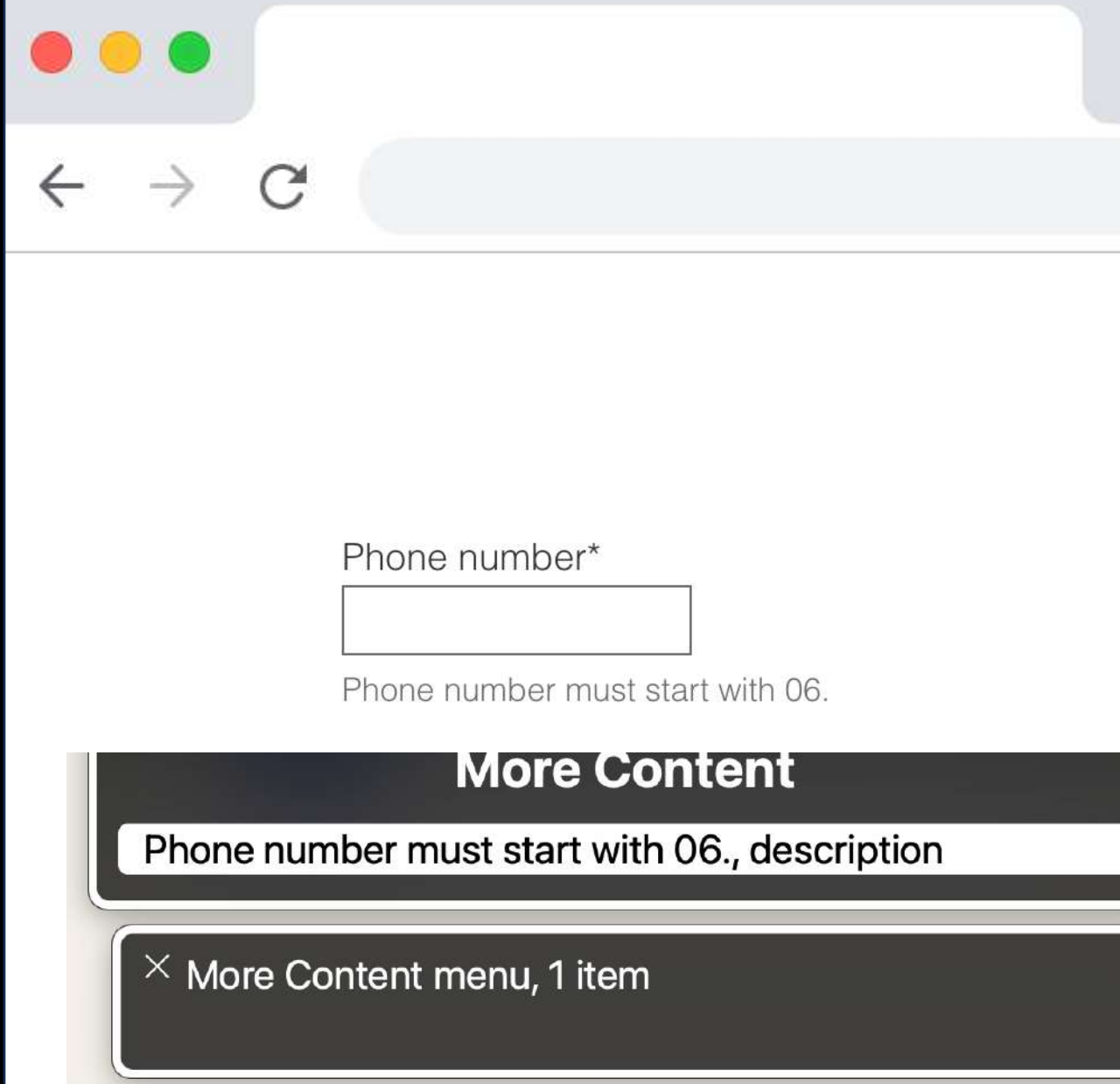
<p>Phone number must start with 06.</p>
```





```
<label for="phone">
  Phone number<span aria-hidden="true">*</span>
</label>
<input
  type="phone"
  id="phone"
  aria-required="true"
  aria-describedby="phoneHint"
/>

<p id="phoneHint">Phone number must start with 06.</p>
```



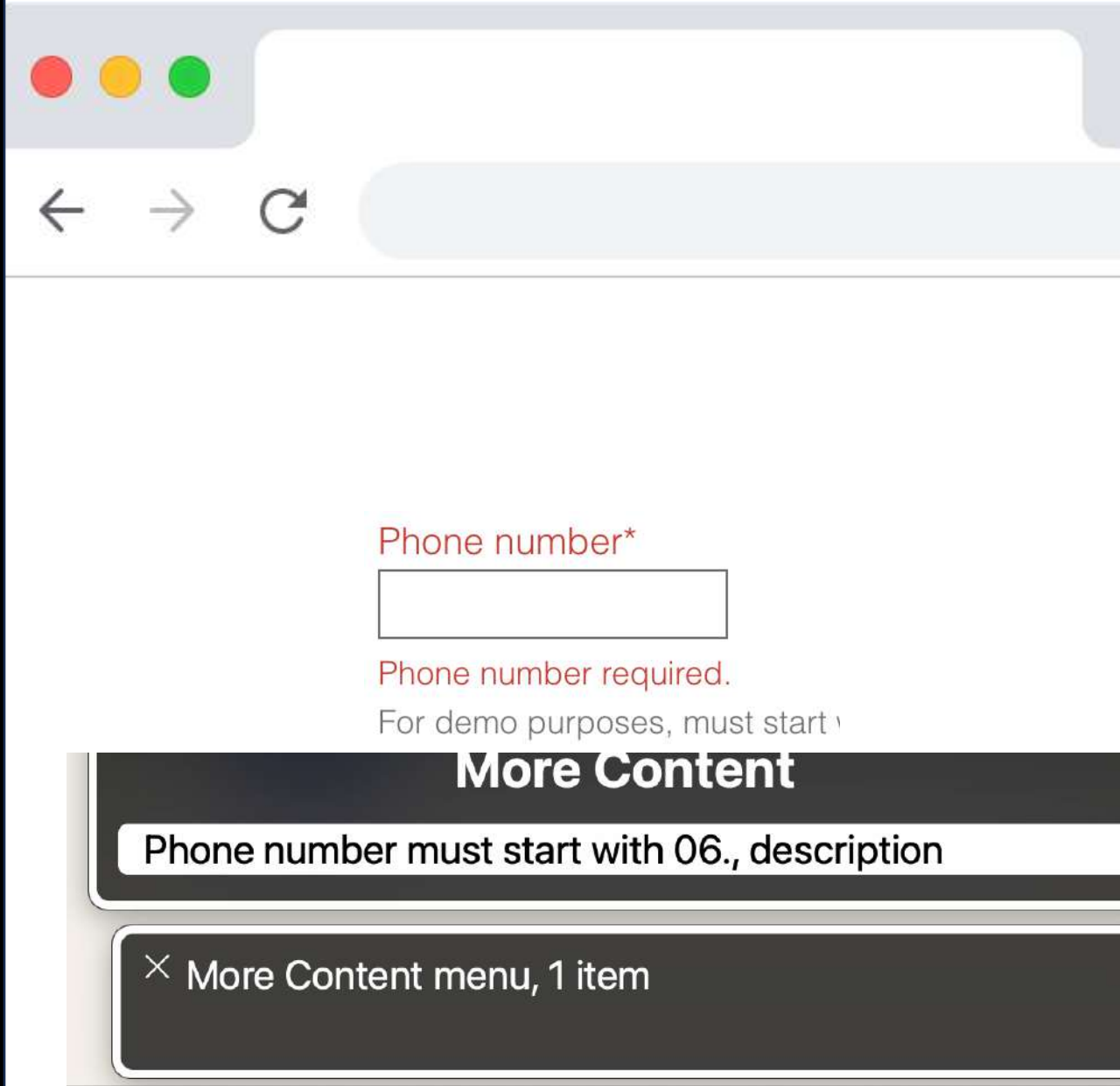


```
<label for="phone">
  Phone number<span aria-hidden="true">*</span>
</label>
```

```
<input
  type="phone"
  id="phone"
  aria-required="true"
  aria-describedby="phoneHint"
/>
```

```
<p>Phone number required.</p>
```

```
<p id="phoneHint">Phone number must start with 06.</p>
```





```
<label for="phone">
  Phone number<span aria-hidden="true">*</span>
</label>
<input
  type="phone"
  id="phone"
  aria-required="true"
  aria-invalid="true"
  aria-describedby="phoneHint"
/>

<p>Phone number required.</p>

<p id="phoneHint">Phone number must start with 06.</p>
```

Phone number*

Phone number required.
For demo purposes, must start with 06.

✕ Phone number, required invalid data, edit text



```
<label for="phone">
  Phone number<span aria-hidden="true">*</span>
</label>
<input
  type="phone"
  id="phone"
  aria-required="true"
  aria-invalid="true"
  aria-describedby="phoneHint phoneError"
/>

<p id="phoneError">Phone number required.</p>

<p id="phoneHint">Phone number must start with 06.</p>
```

The screenshot shows a web browser window with a single tab. The address bar is empty. The main content area displays a form with a label "Phone number*" in red text. Below the label is an empty text input field. Underneath the input field, there are two lines of red text: "Phone number required." and "For demo purposes, must start with 06." Below the form, there is a blue "Save" button. At the bottom of the browser window, a dark gray toast notification is visible, containing a close icon (X) and the text "Phone number, required invalid data, edit text".



```
<label for="phone">
  Phone number<span aria-hidden="true">*</span>
</label>
<input
  type="phone"
  id="phone"
  aria-required="true"
  aria-invalid="true"
  aria-describedby="phoneHint phoneError"
/>

<p id="phoneError" aria-live="assertive">
  Phone number required.
</p>

<p id="phoneHint">Phone number must start with 06.</p>
```

Browser window showing a form with two input fields:

- Email* (highlighted with a double border)
- Phone number*

Below the fields, a hint text is visible: "For demo purposes, must start with 06".

A dark overlay at the bottom of the browser window displays the message: "Email, required, edit text email".

Moment of validation

(Please don't disable the save button)

OnSubmit

Email*

Phone number*

For demo purposes, must start with 06.

Save



Moment of validation

OnBlur

Email*

Phone number*

For demo purposes, must start with 06.

Save

Moment of validation

OnChange

Email*

Phone number*

For demo purposes, must start with 06.

Save

OnBlur + OnSubmit

- User gets notified while filling in the form
- User gets summary of error after submit
- Best of both worlds
- Best for medium/large forms



```
<label for="phone">
  Phone number<span aria-hidden="true">*</span>
</label>
<input
  type="phone"
  id="phone"
  aria-required="true"
  aria-invalid="true"
  aria-describedby="phoneHint phoneError"
/>

<p id="phoneError" aria-live="assertive">
  Phone number required.
</p>

<p id="phoneHint">Phone number must start with 06.</p>

<div class="form-feedback">
  <p aria-live="assertive">
    Failed to save because 2 fields are invalid.
  </p>
  <p aria-hidden="true">
    Failed to save because 2 fields are invalid.
  </p>
</div>
```

Phone number*

Phone number must start with 06.

Save

✕ You are currently on a tab, group, inside a group. To select this option, press Control-Option-Space. To exit this group, press

Wrapping up

- **for**: To connect labels to inputs.
- **aria-hidden**: To hide elements to the screen reader.
- **aria-required**: To mark a field as required.
- **aria-invalid**: To mark the field as invalid.
- **aria-describedby**: To connect the description and error message to the input.
- **aria-live**: To announce dynamic error messages.
- **Moment of validation strategy**

Fin. Questions?

Your duty as a web creator is to ensure everyone can enjoy the web.