




DIALOG DILEMMAS AND MODAL MISCHIEF: ON BUILDING POPOVERS

Hidde de Vries, 2 May 2024, All Day Hey!, Leeds

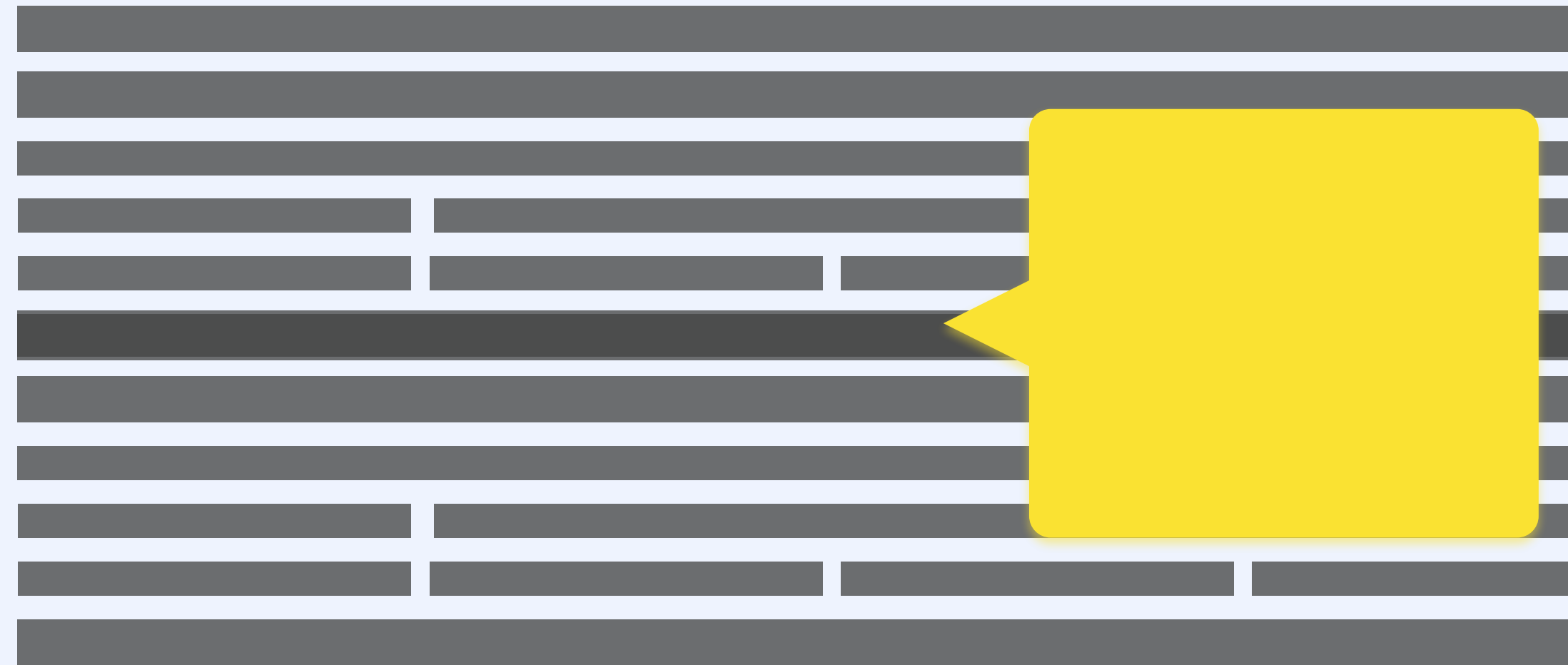
A woman with blonde hair pulled back, wearing a dark blue button-down shirt and gold hoop earrings, stands in a modern kitchen. She is smiling slightly and looking towards the camera. The kitchen features stainless steel appliances, including a double oven and a sink with a high-arc faucet. A red stand mixer is visible on the counter behind her to the left. The background is softly blurred.

- Popovers can be real tricky



- Oh, that custardy inside.

This talk is about content
that overlaps other content



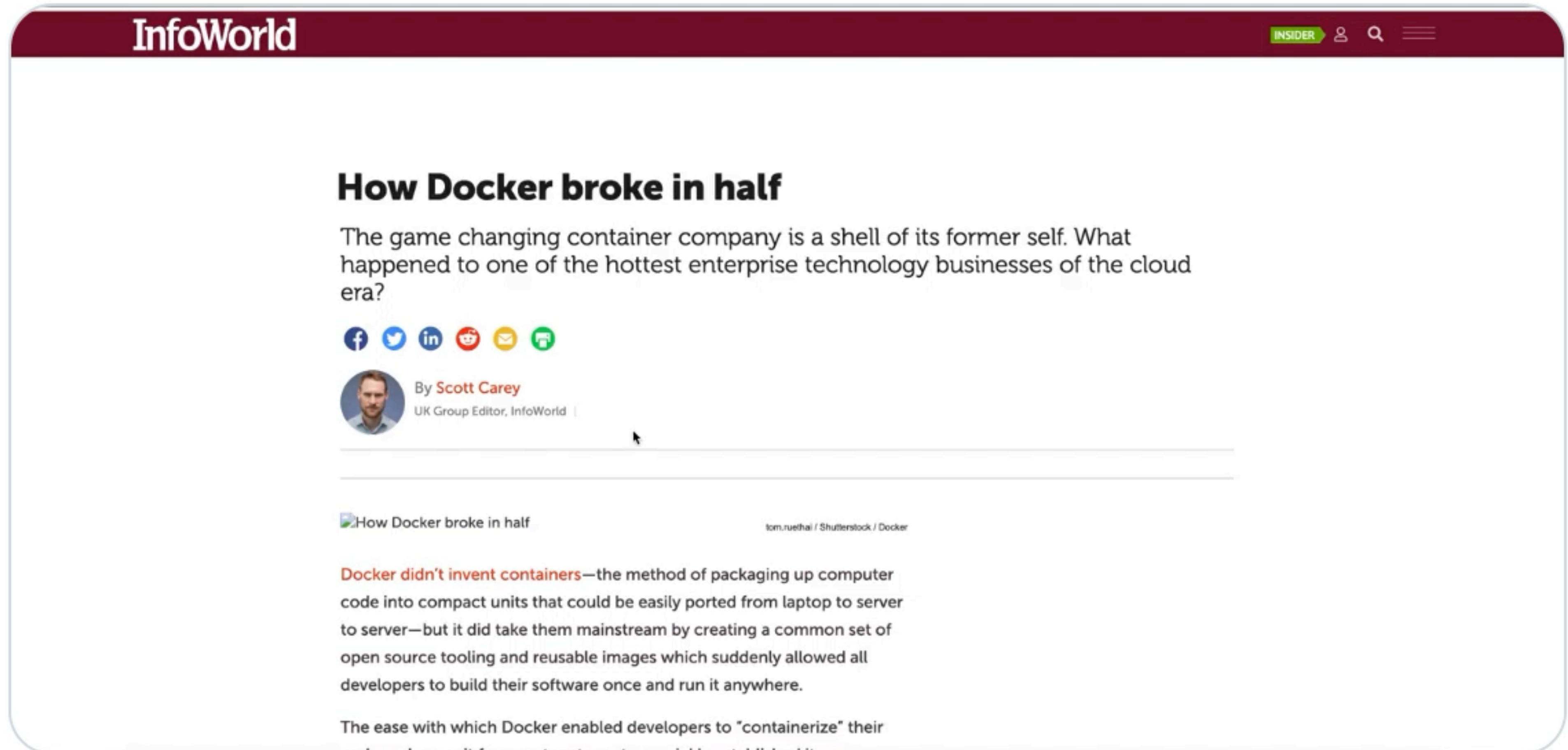


Andrej Karpathy 




@karpathy



Browsing the web, 2021









The screenshot shows a web browser displaying an article on the InfoWorld website. The article title is "How Docker broke in half". The author is Scott Carey, UK Group Editor at InfoWorld. The article text discusses Docker's impact on container technology, noting that while Docker didn't invent containers, it made them mainstream through open-source tooling and reusable images.


InfoWorld INSIDER   

How Docker broke in half

The game changing container company is a shell of its former self. What happened to one of the hottest enterprise technology businesses of the cloud era?

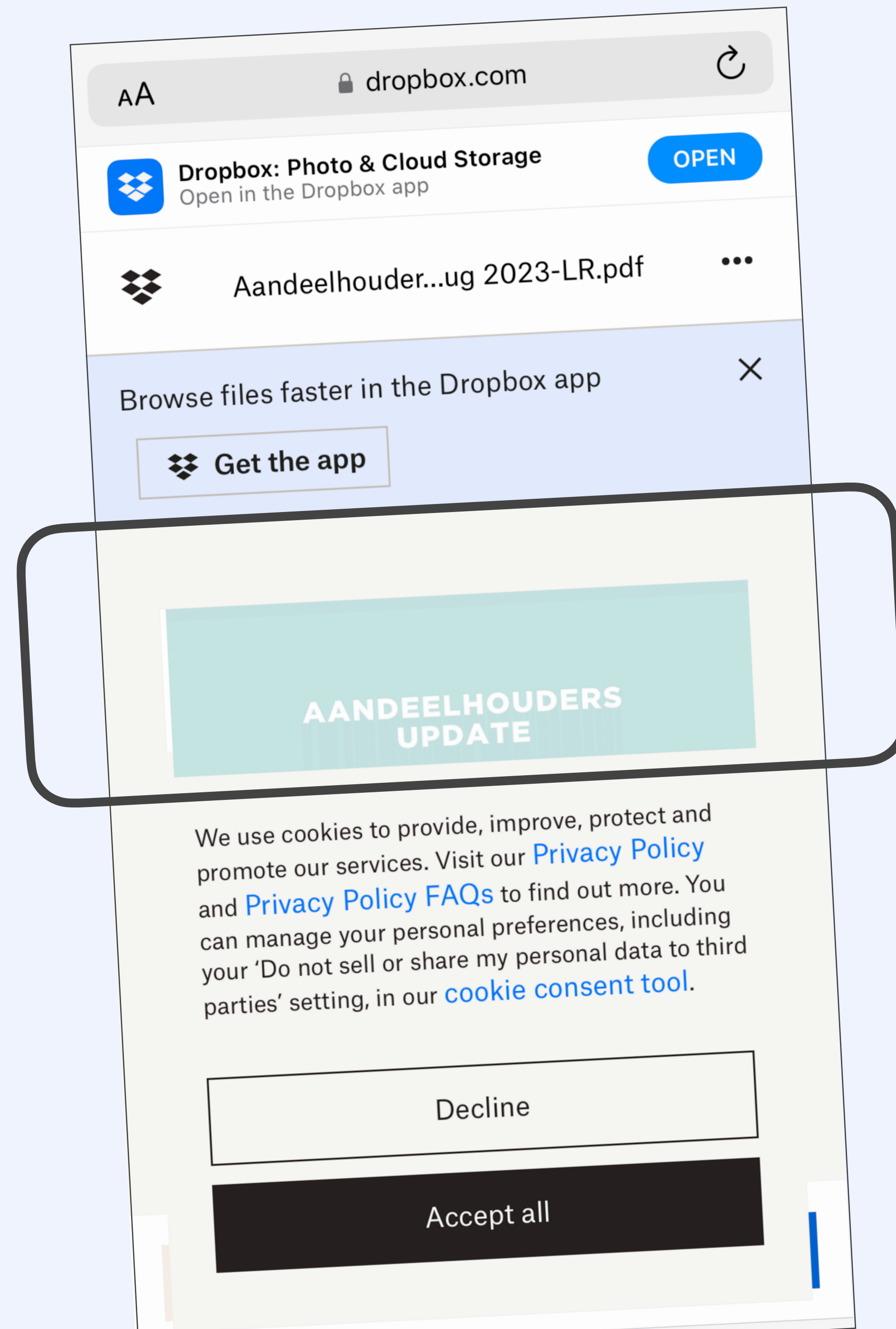
     

By **Scott Carey**
UK Group Editor, InfoWorld

 How Docker broke in half tom.ruehli / Shutterstock / Docker

Docker didn't invent containers—the method of packaging up computer code into compact units that could be easily ported from laptop to server to server—but it did take them mainstream by creating a common set of open source tooling and reusable images which suddenly allowed all developers to build their software once and run it anywhere.

The ease with which Docker enabled developers to "containerize" their code and move it from system to system quickly established it as



WE USE TOO
MANY DAMN
MODALS.

LET'S JUST NOT.

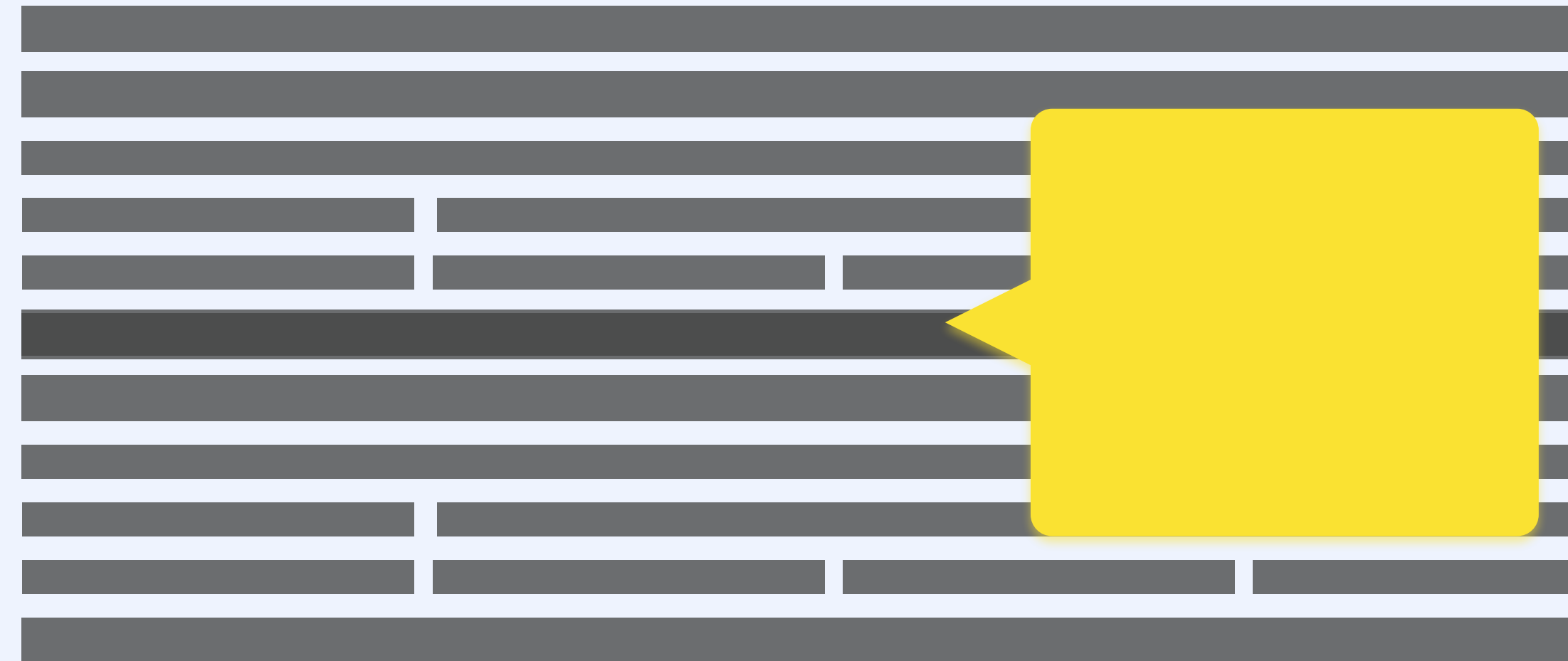
HELP



THE BAD NEWS

MODALS ARE THE CRUTCH OF THE INARTICULATE DE-
SIGNER AND DEVELOPER.

We'll focus on **how** to build content that overlaps other content.



<dialog>

HTML element · wide browser support · (as of recently) good accessibility support

popover

New attribute / API in HTML · supported in all major browsers as of (very) recent

<dialog>

What does each do

Accessibility semantics

In practice

popover

New attribute / API in HTML, v1 supported in Chrome stable, coming to other browsers too

HI, I'M HIDDE

public relations + accessibility
at NL Design System

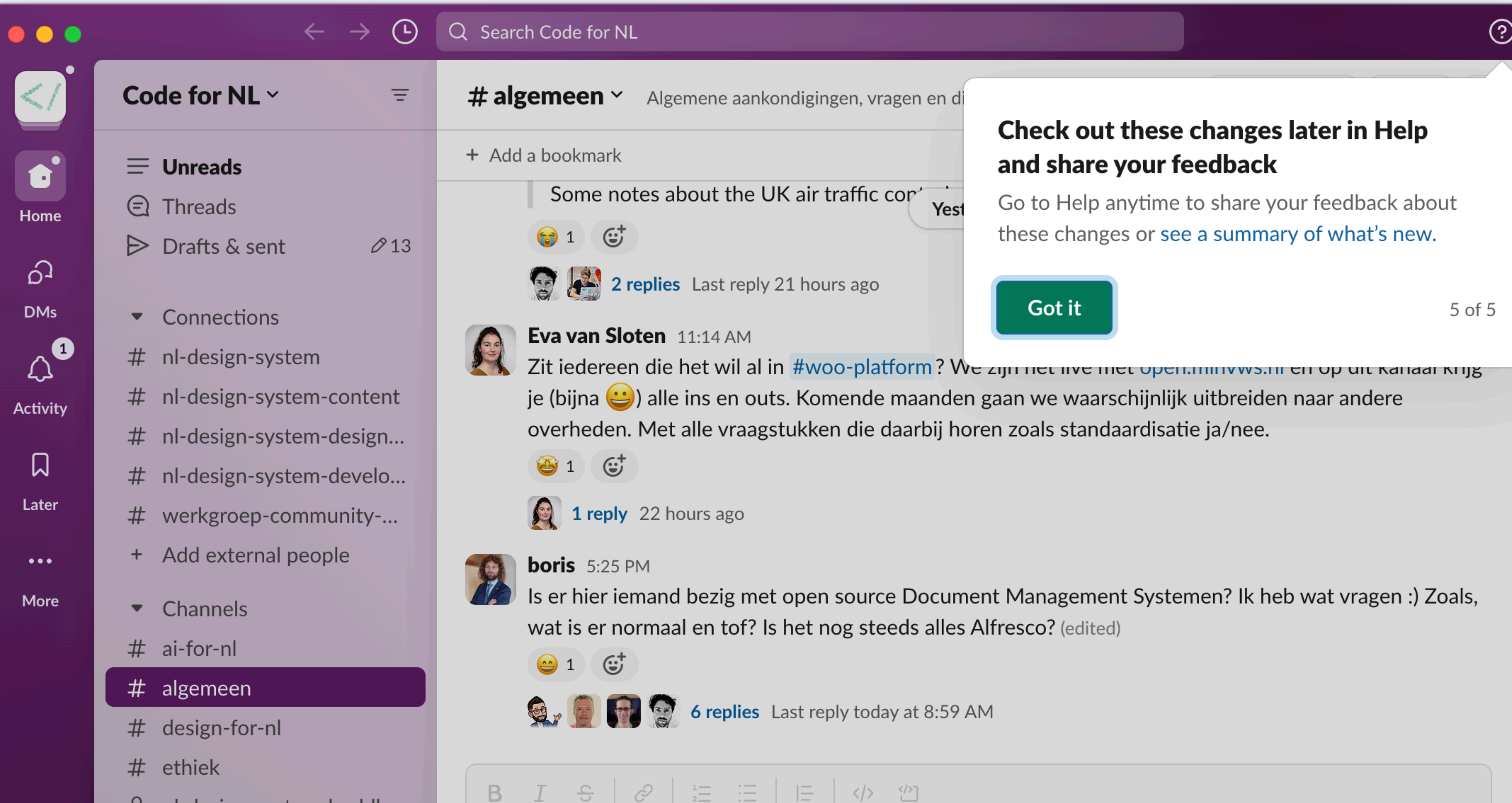
participant at Open UI CG

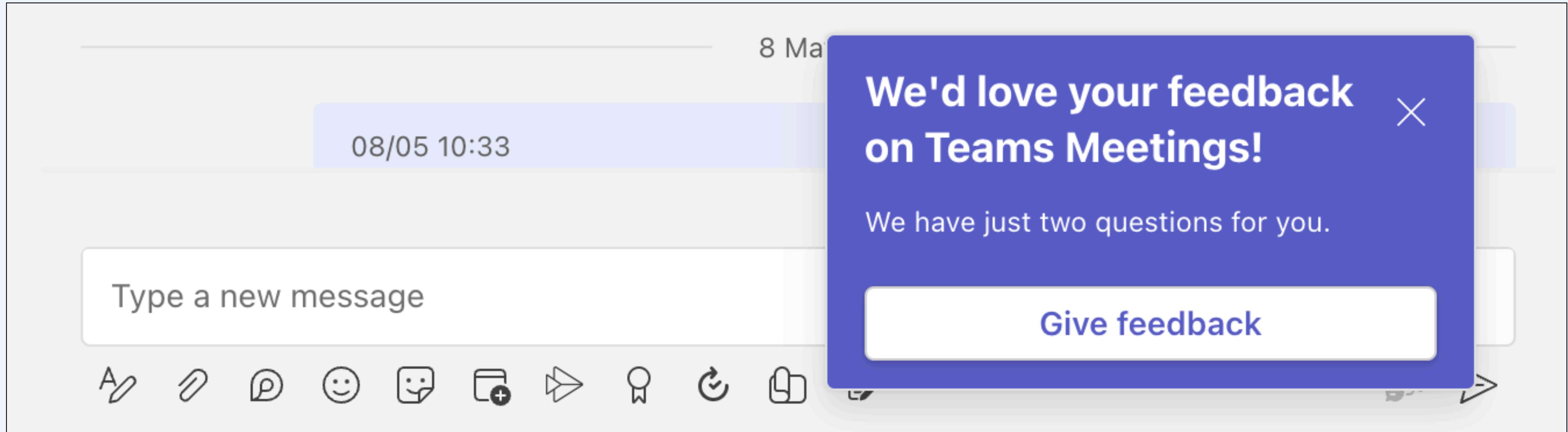
hidde.blog

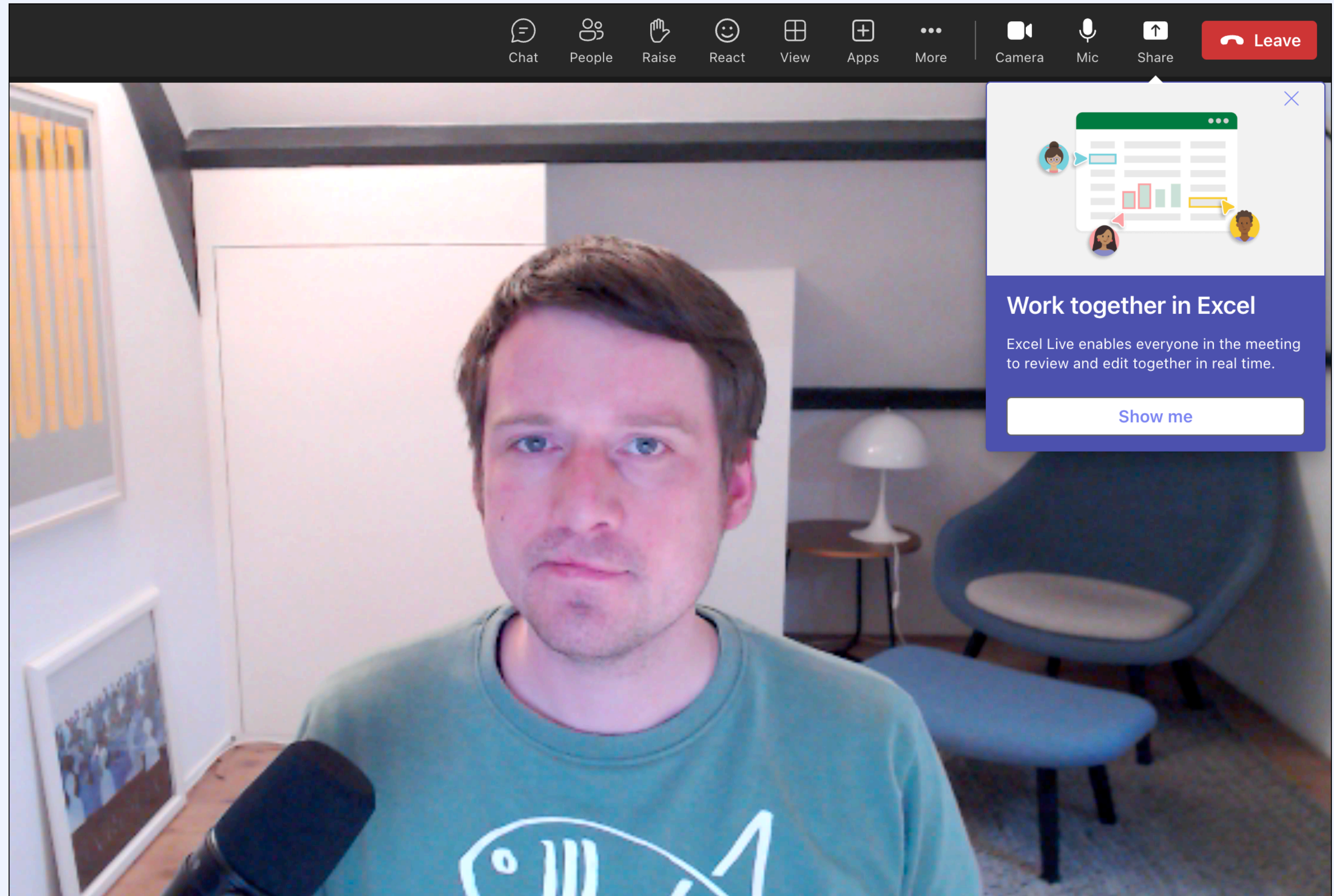
LIKE &
SUBSCRIBE



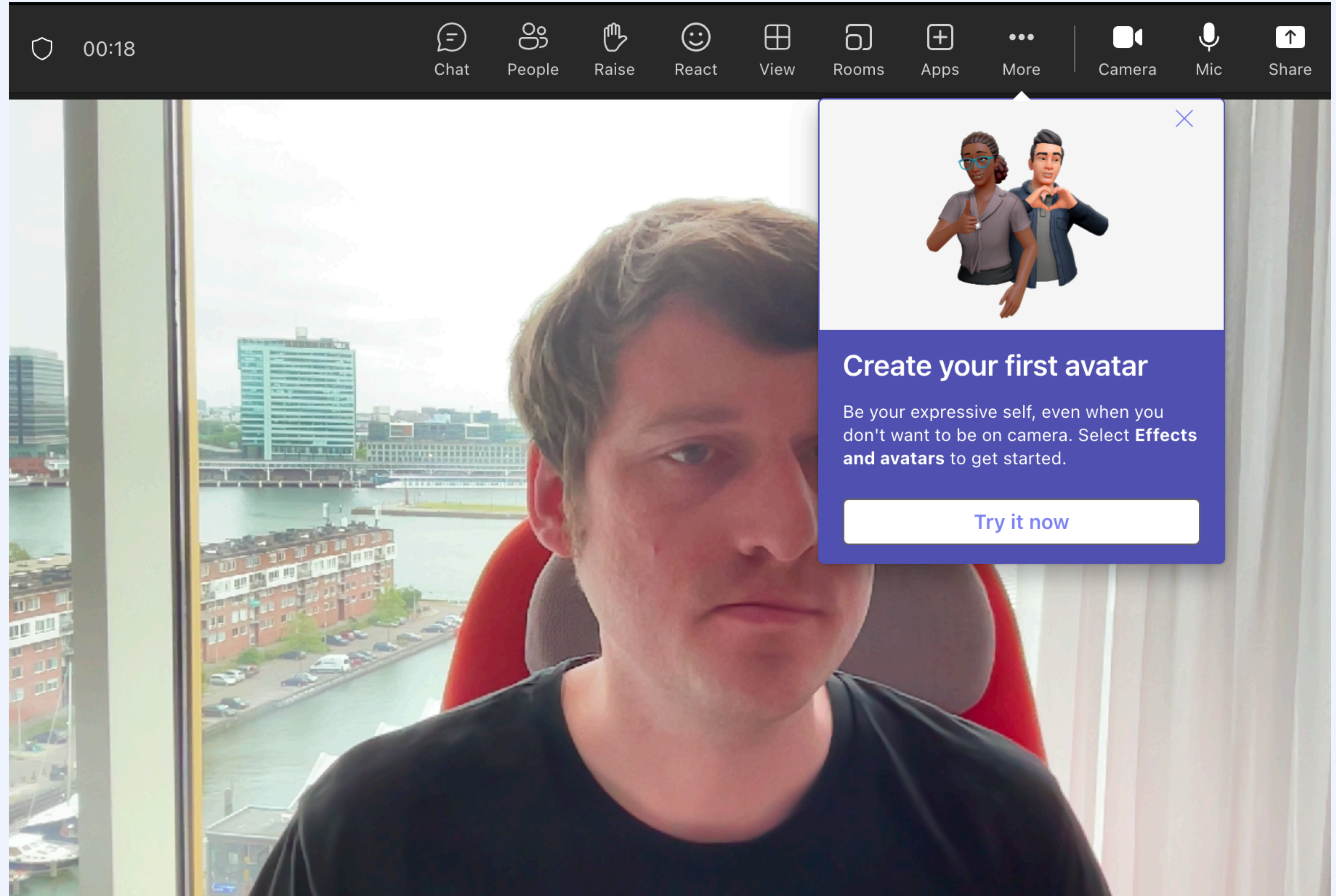






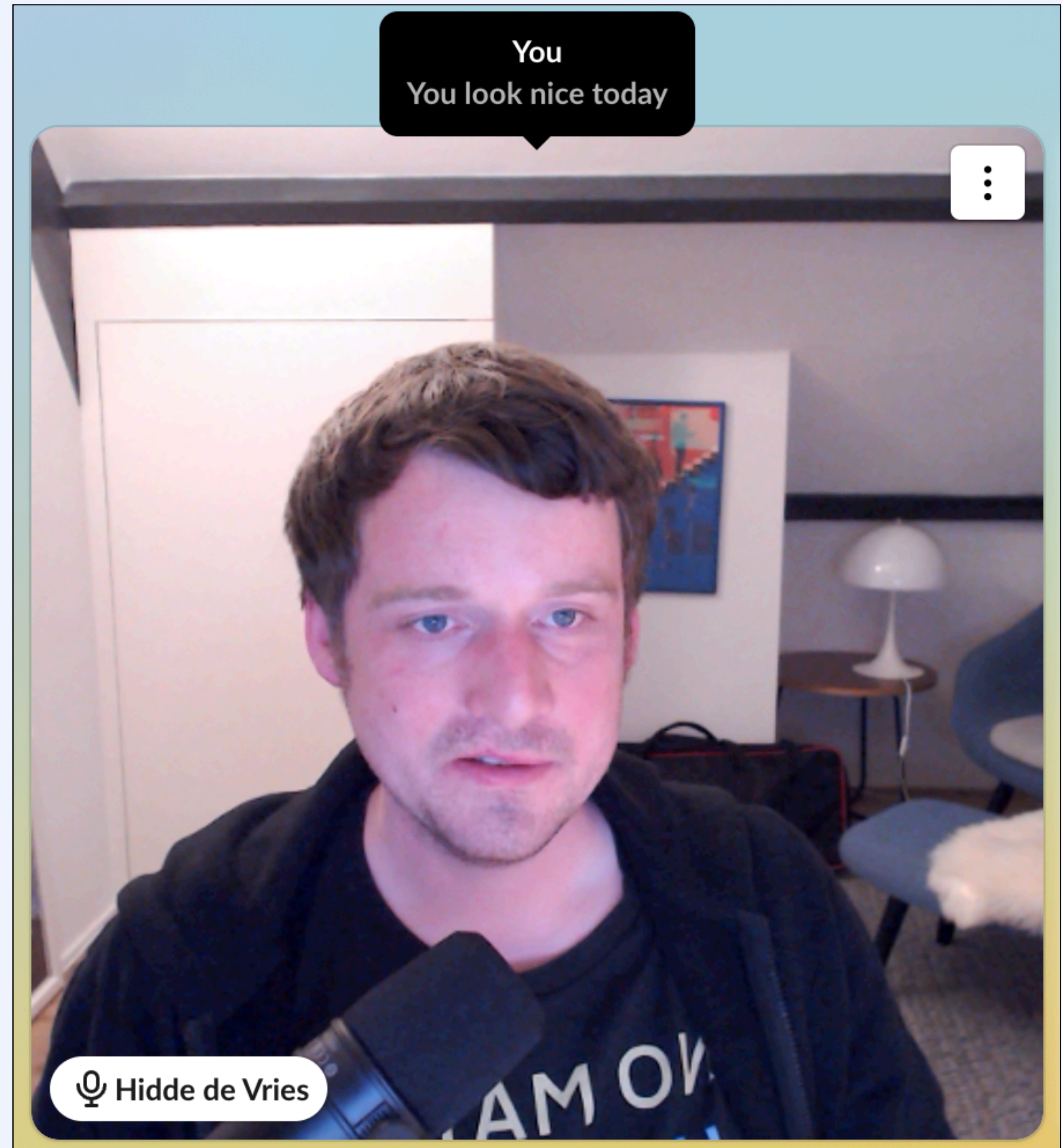


Teams: a popover to teach about an Excel integration



Teams: a popover to urge me to be my expressive self

Slack Huddles: a popover to tell the user they look nice today



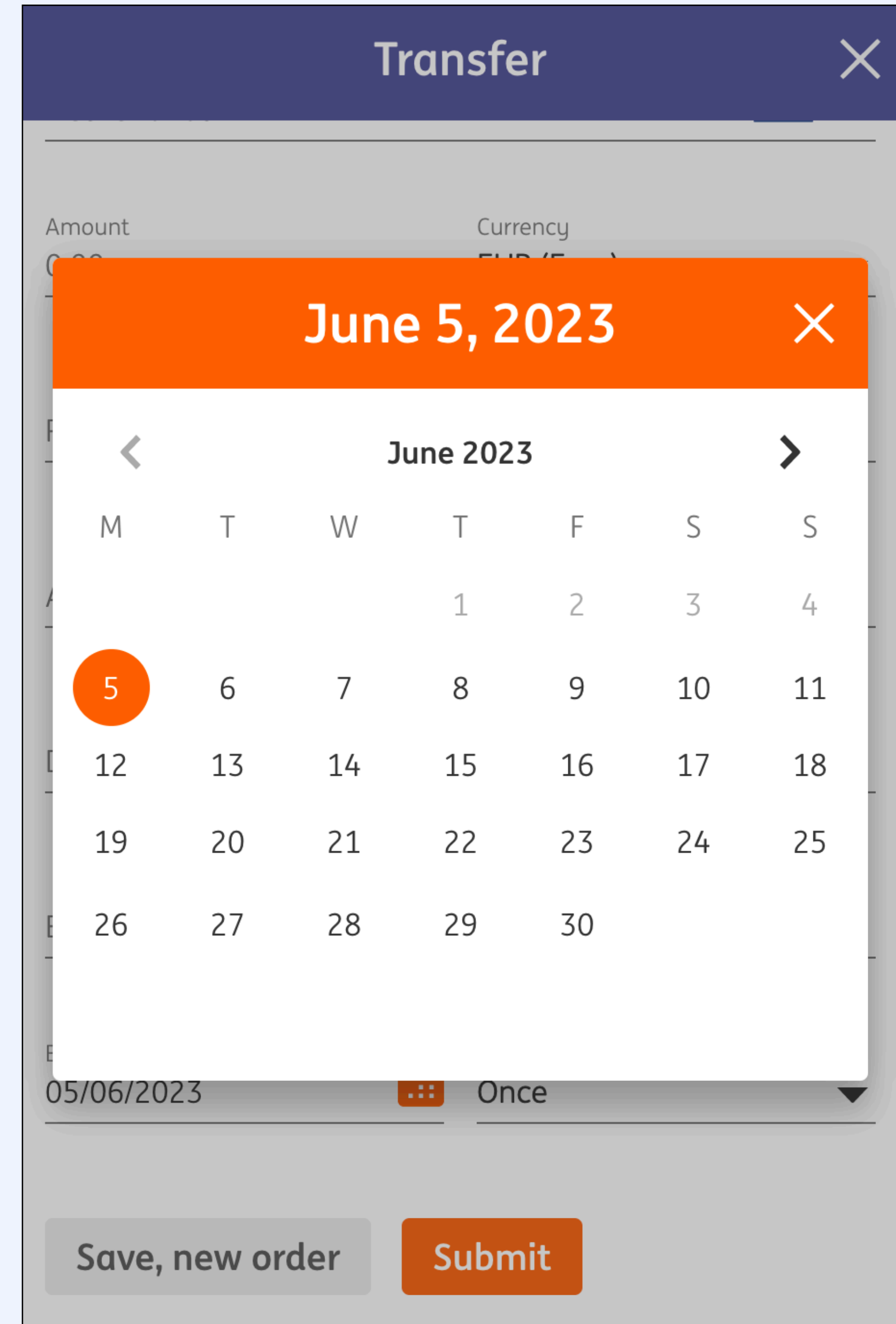
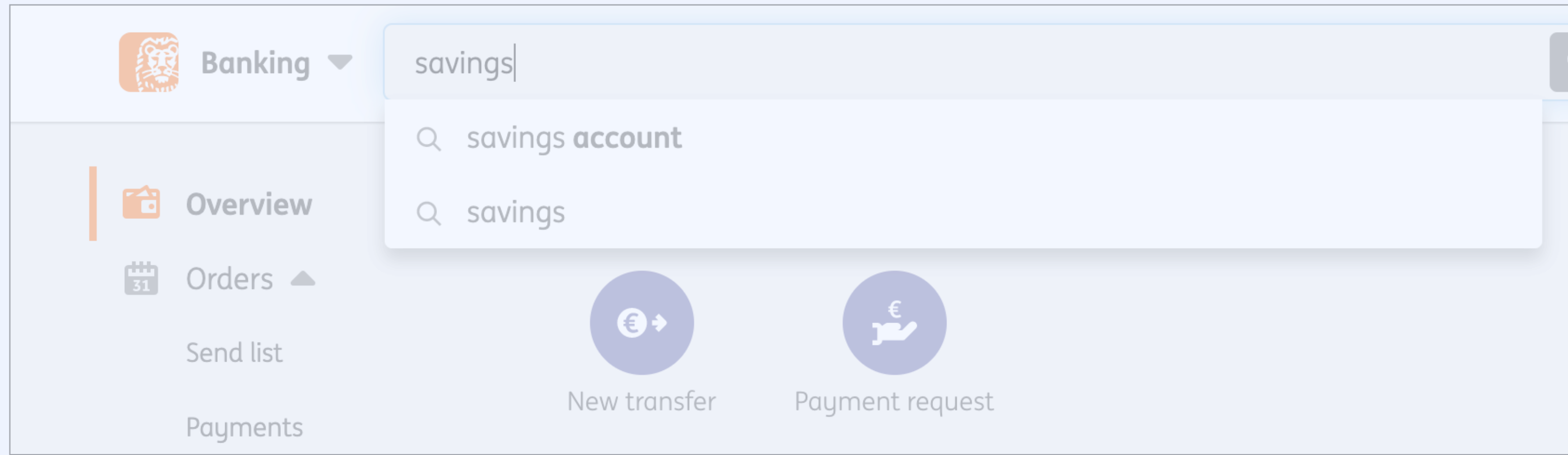
Online banking: a popover to autocomplete search query

@hdv@front-end.social

The image shows a screenshot of an online banking application interface. At the top left, there is a logo of a lion's head next to the word "Banking" with a dropdown arrow. Below this is a navigation menu with items: "Overview" (with a house icon), "Orders" (with a calendar icon showing "31"), "Send list", and "Payments". In the center, there are two circular buttons: "New transfer" (with a Euro symbol and arrow icon) and "Payment request" (with a Euro symbol and hand icon). At the top right, there is a search bar containing the text "savings" and a "Search" button. To the right of the search bar are "Help" (with a question mark icon), "Hr H de Vries" (with a user profile icon and dropdown arrow), and a "Log out" button. A "Change view" button with an eye icon is also visible. A search popover is displayed below the search bar, containing two suggestions: "savings account" and "savings".

Online banking: a popover to autocomplete search query

@hdv@front-end.social



Online banking: a popover to select a transfer date

Dialogs vs popovers vs “modals”

Dialogs vs **popovers** vs **“modals”**

DIALOG

What is it

Additional window to
your main window.

a.k.a. “descendant window” or
“subwindow”

DIALOG

What is it

Usually contains an **action** or **task** for the user, sometimes has **critical information**

DIALOG

What is it

‘a “conversation”
between the system
and the user’

DIALOG

*What is it
(typically)*

- Do you want to continue, *yes or no*
- If you want to open a new file, what shall we do with your current file?
- How do you want to crop this image, where is the hot spot?

<DIALOG>

What is it

HTML element to
build dialogs

```
<dialog>... </dialog>
```

<DIALOG>

*Open/close
with script*

```
// show as modal  
element.showModal();
```

```
// show as non-modal  
element.show();
```

```
// dialog element  
<dialog>...</dialog>
```

comes with role,
modal setting, close-
on-Esc etc

```
// dialog element  
<dialog>...</dialog>
```

just the
semantics, no
behaviour

```
// an element with  
// dialog semantics  
<div role="dialog">... </div>
```

```
// dialog element  
<dialog>...</dialog>
```

```
// an element with  
// dialog semantics  
<div role="dialog">... </div>
```

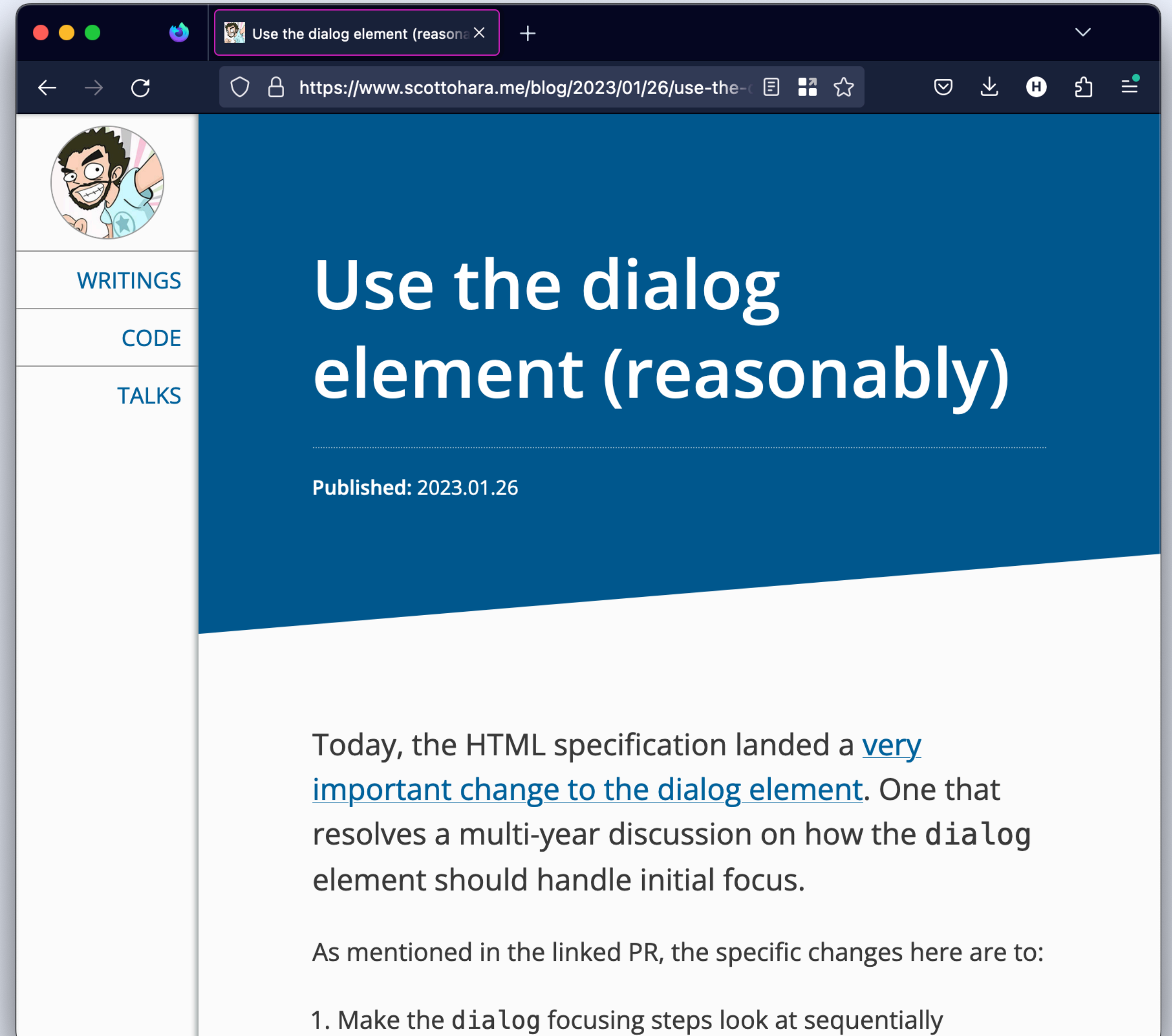
“dialog” just the word

CURRENT STATUS: <DIALOG>



scottohara.me/blog/2023/01/26/use-the-dialog-element.html

MORE ON USING <DIALOG> ACCESSIBLY



Dialogs vs popovers vs “modals”

Dialogs vs popovers vs “modals”

POPOVER

What is it

a floating piece of UI
with **supplemental** or
contextual content

“non-modal dialog”

“transient content”

[POPOVER]

What is it

an attribute that adds
a set of behaviours to
any element

```
<div popover>... </div>
```

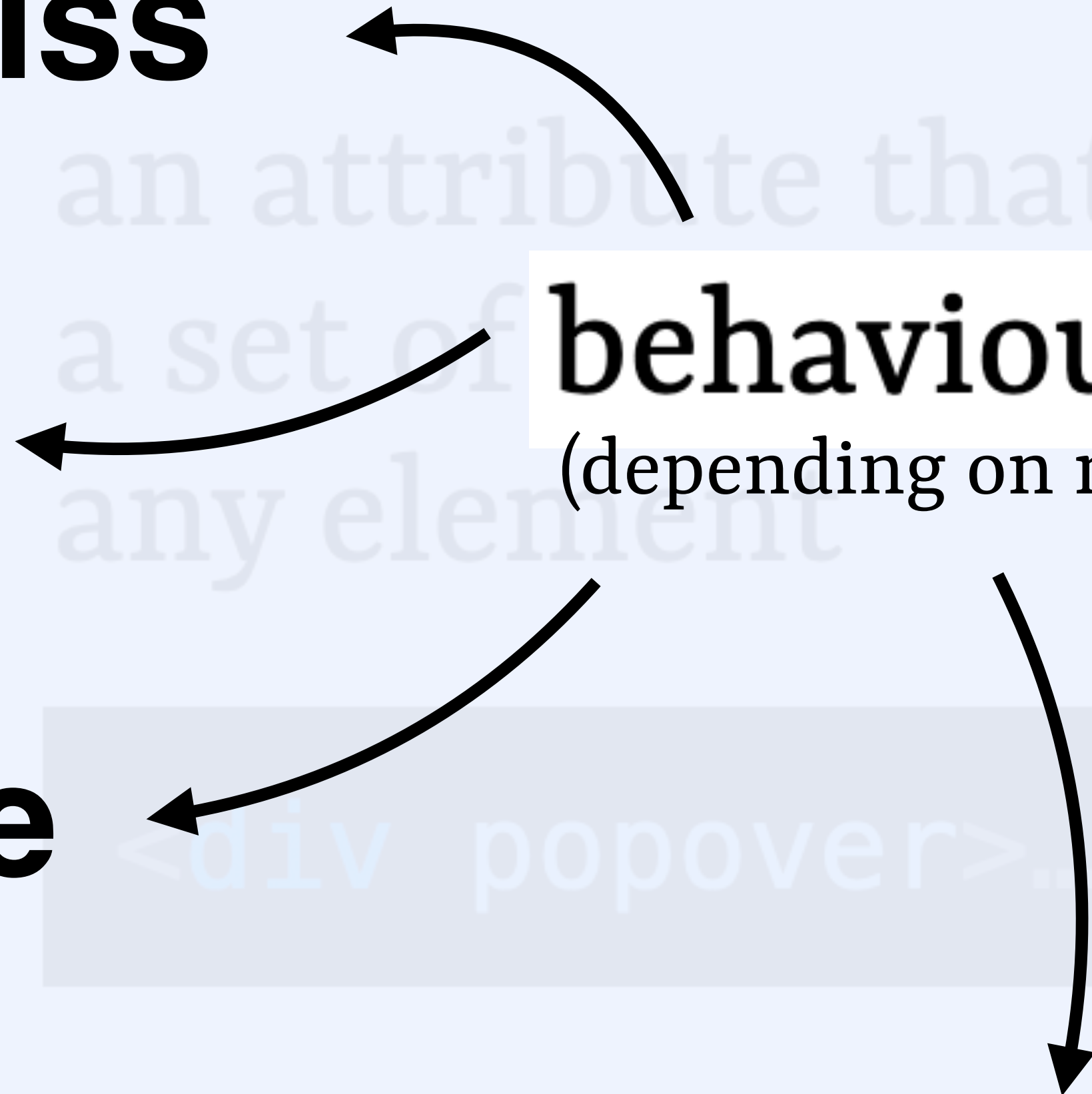
light dismiss

keyboard

top layer presence

auto-closure of other popovers

behaviours
(depending on mode)

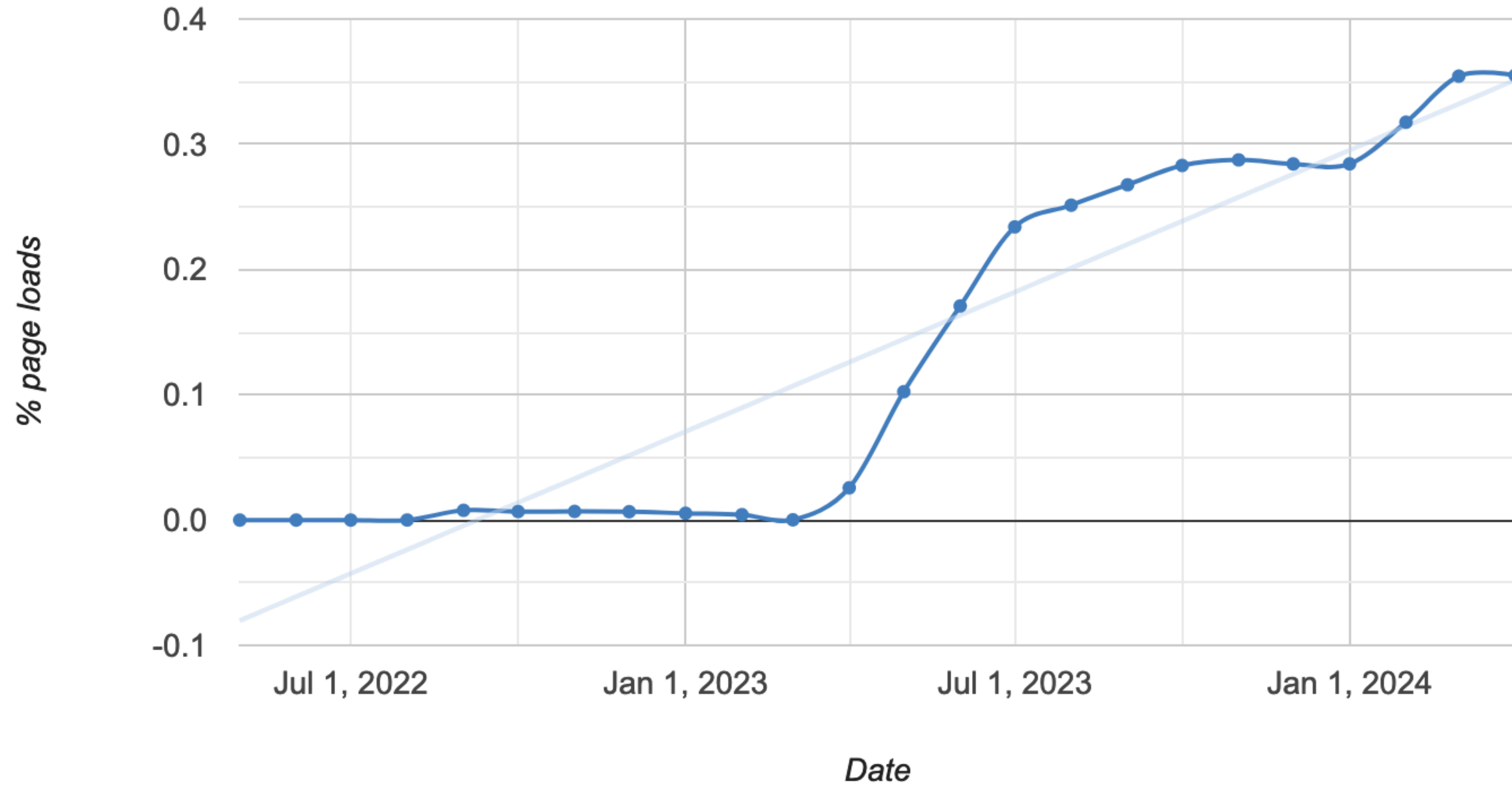


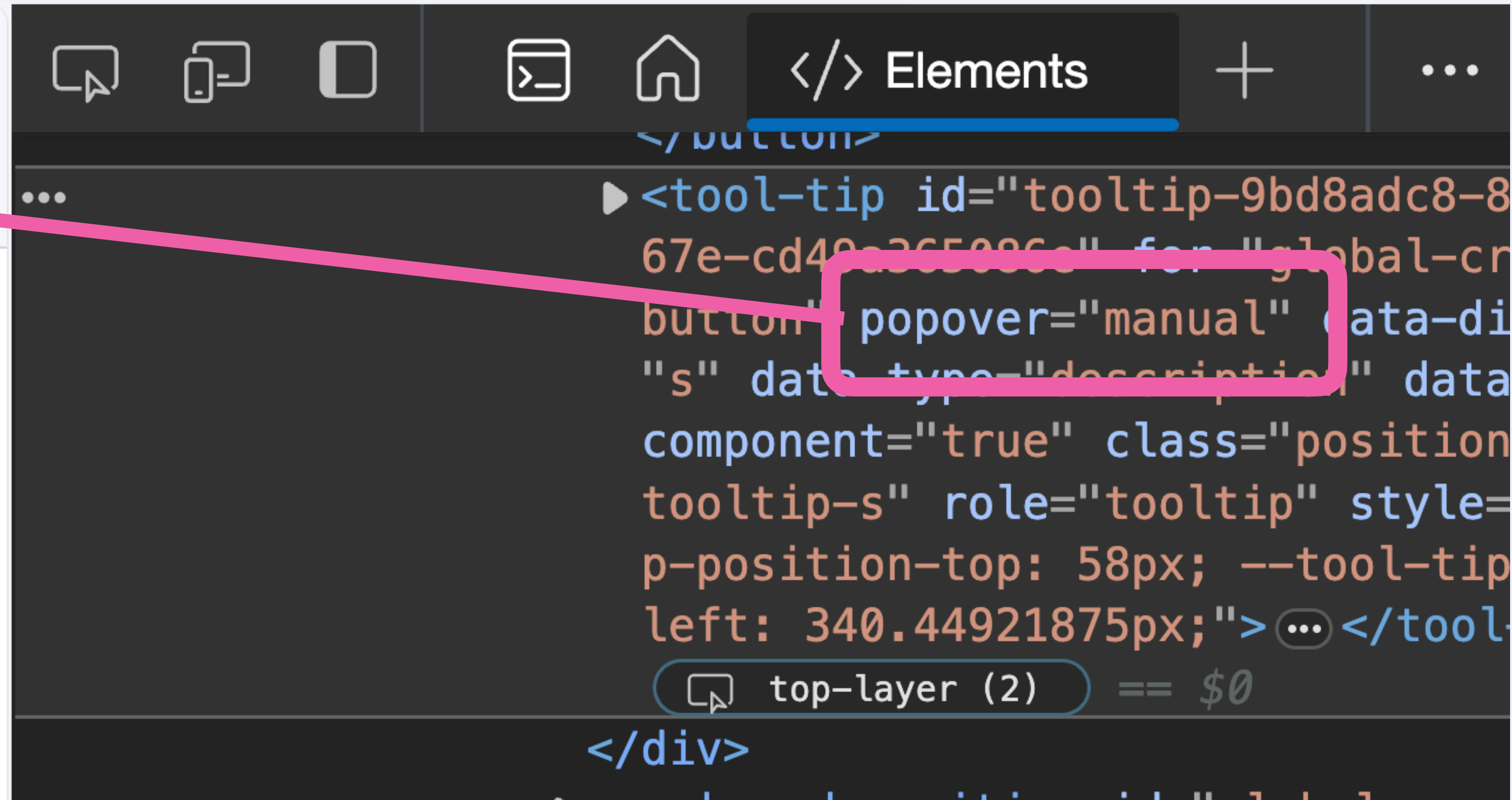
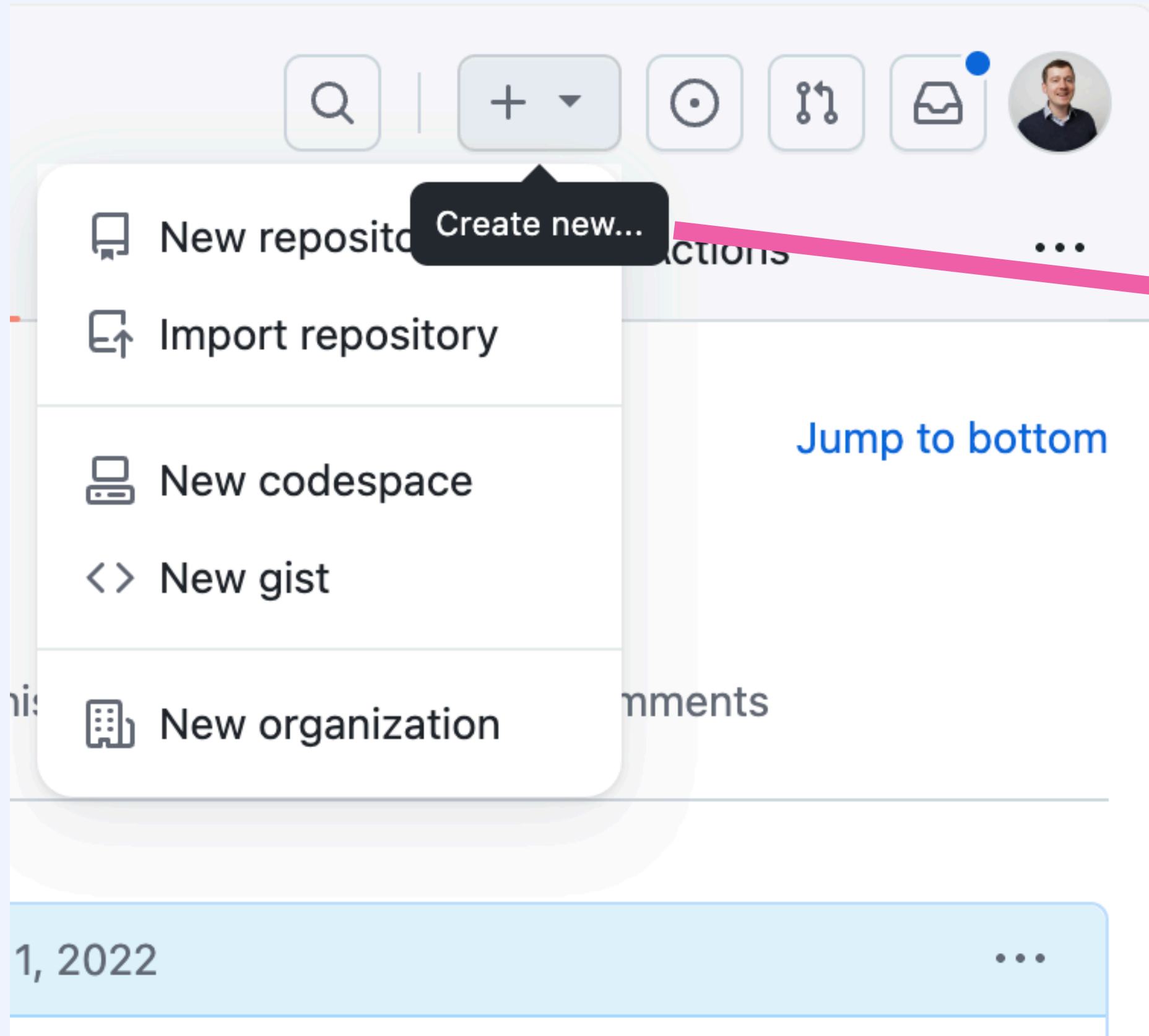
[POPOVER]

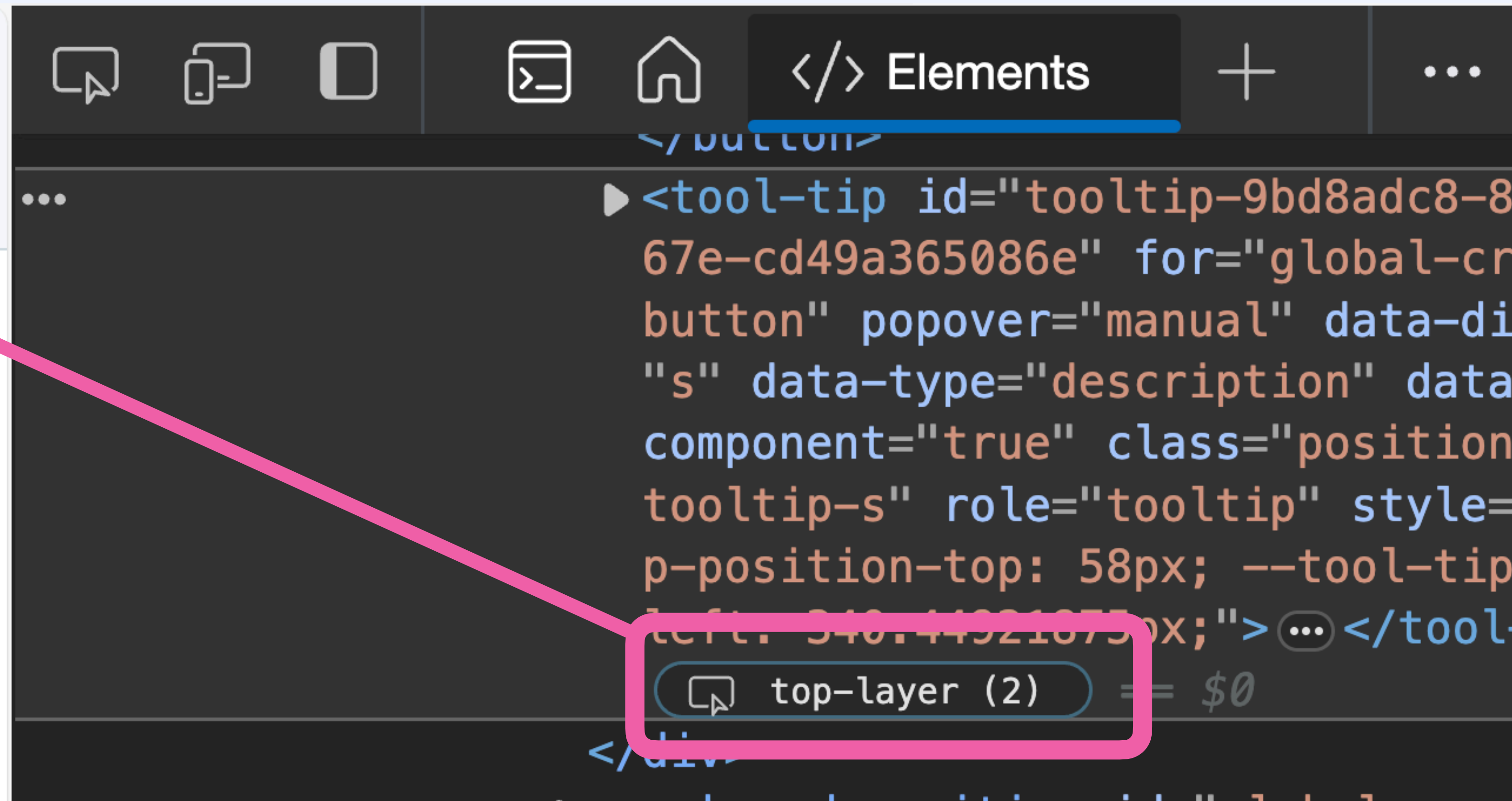
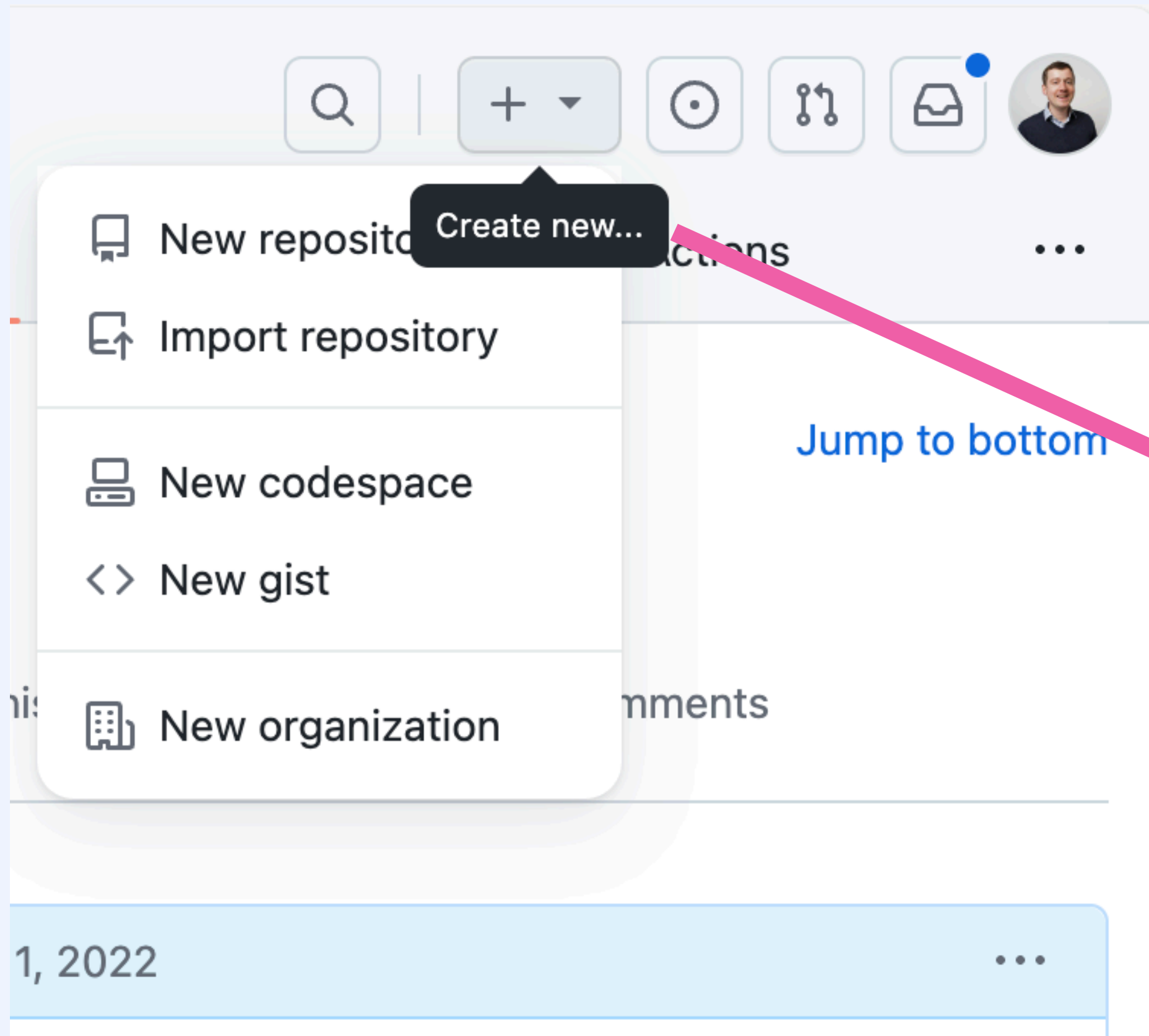
What is it

For elements that are:

- on top of other page content
- not always visible (ephemeral, short-lived)
- usually displayed one at a time









westbrook

@westbrook@mastodon.social



We're in the final throws of landing usage in Photoshop here, soon!

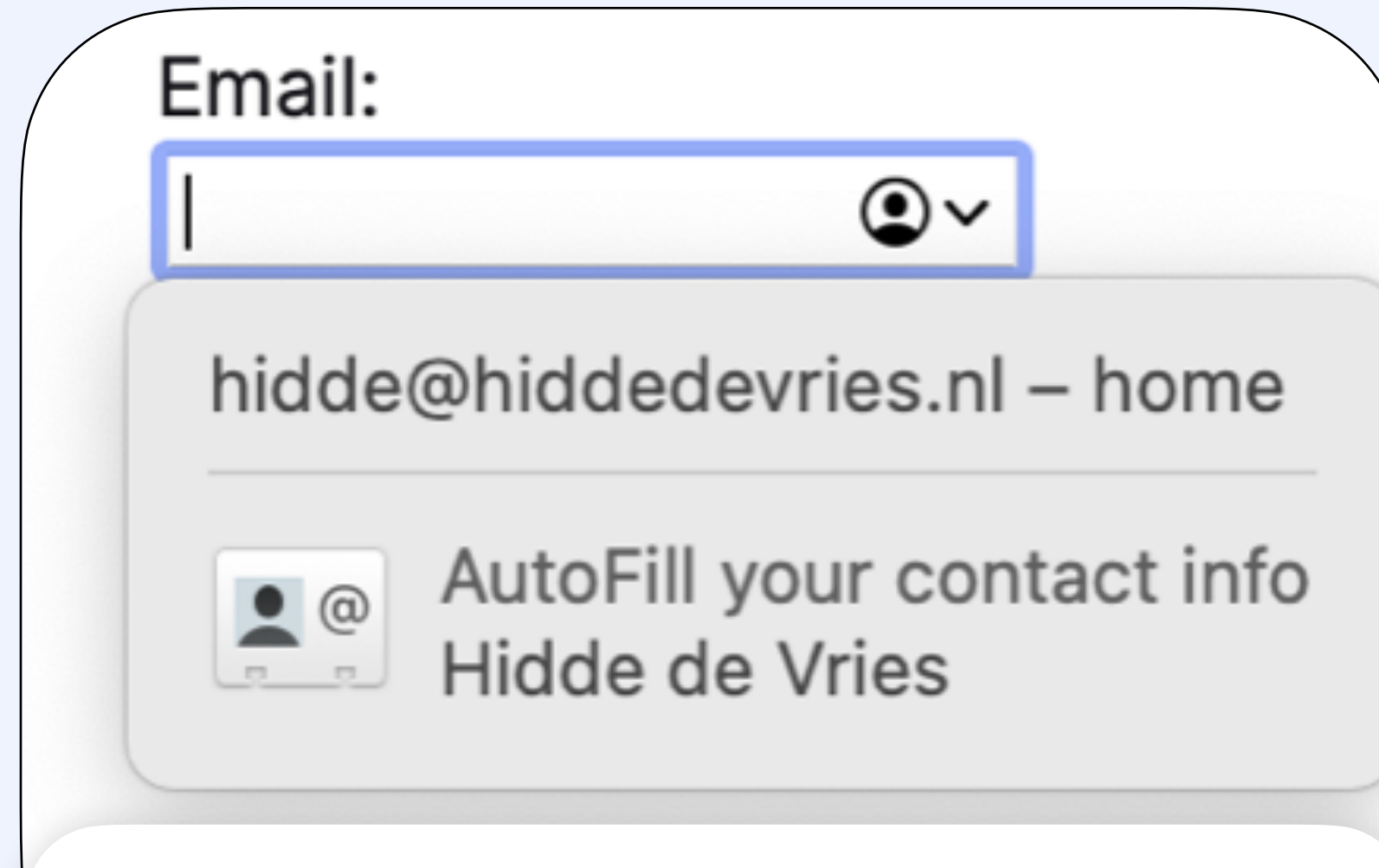
15 September 2023 at 23:07:03 · 

[POPOVER]

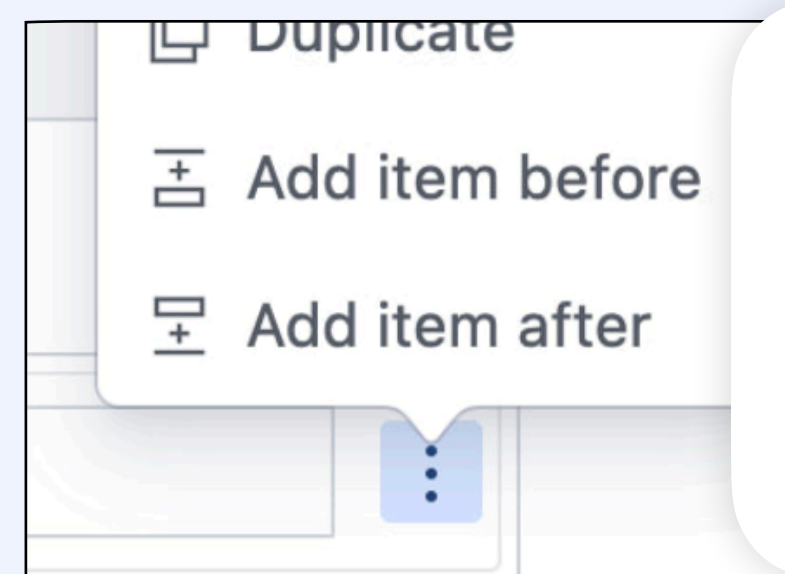
Use cases



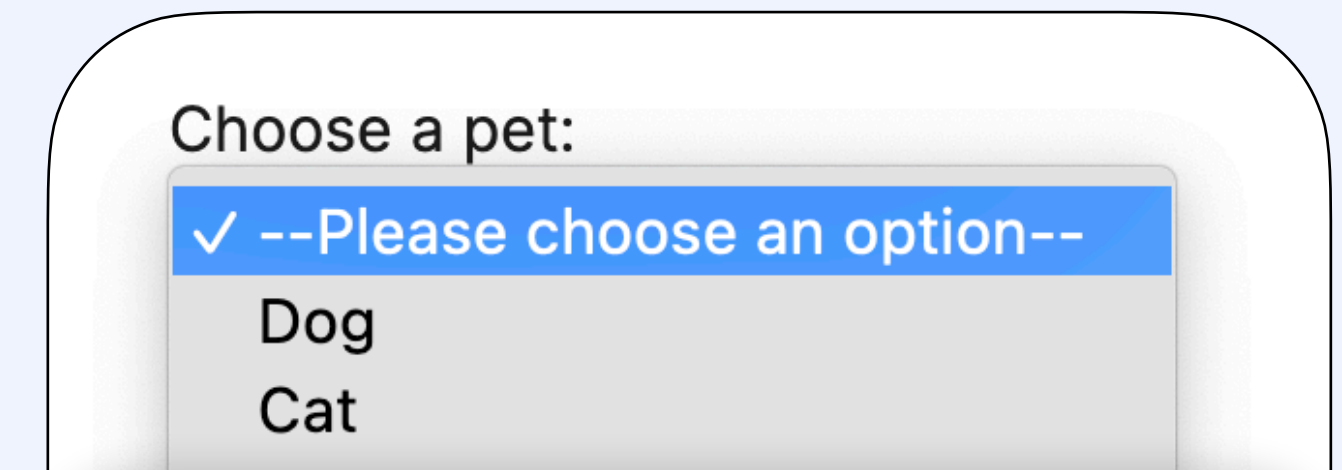
content
pickers



form element
suggestions

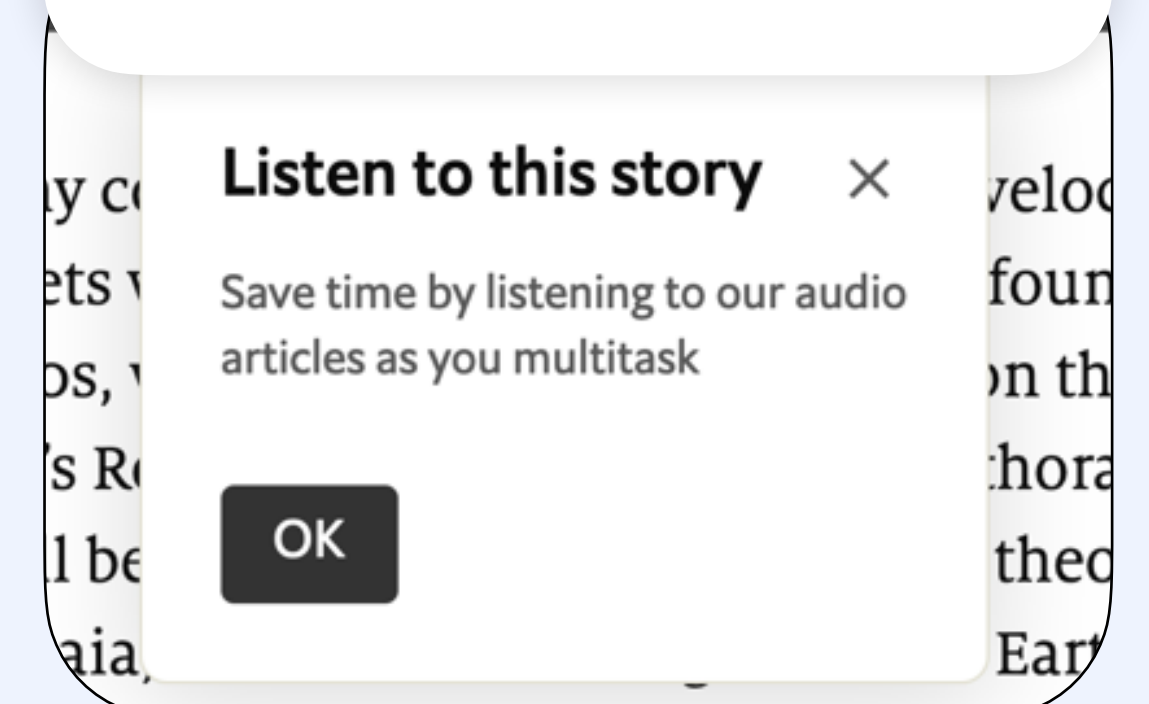


action
menus



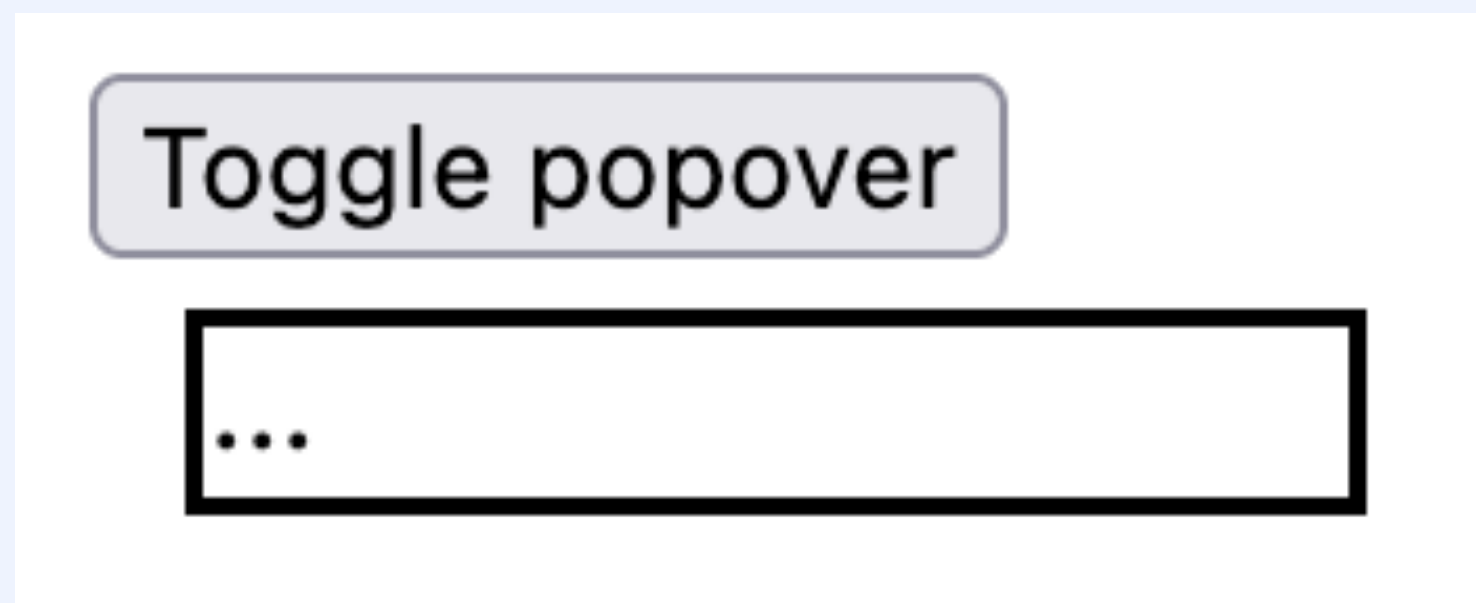
<select>'s
listbox

teaching
UI



[POPOVER]

*No JavaScript
required*

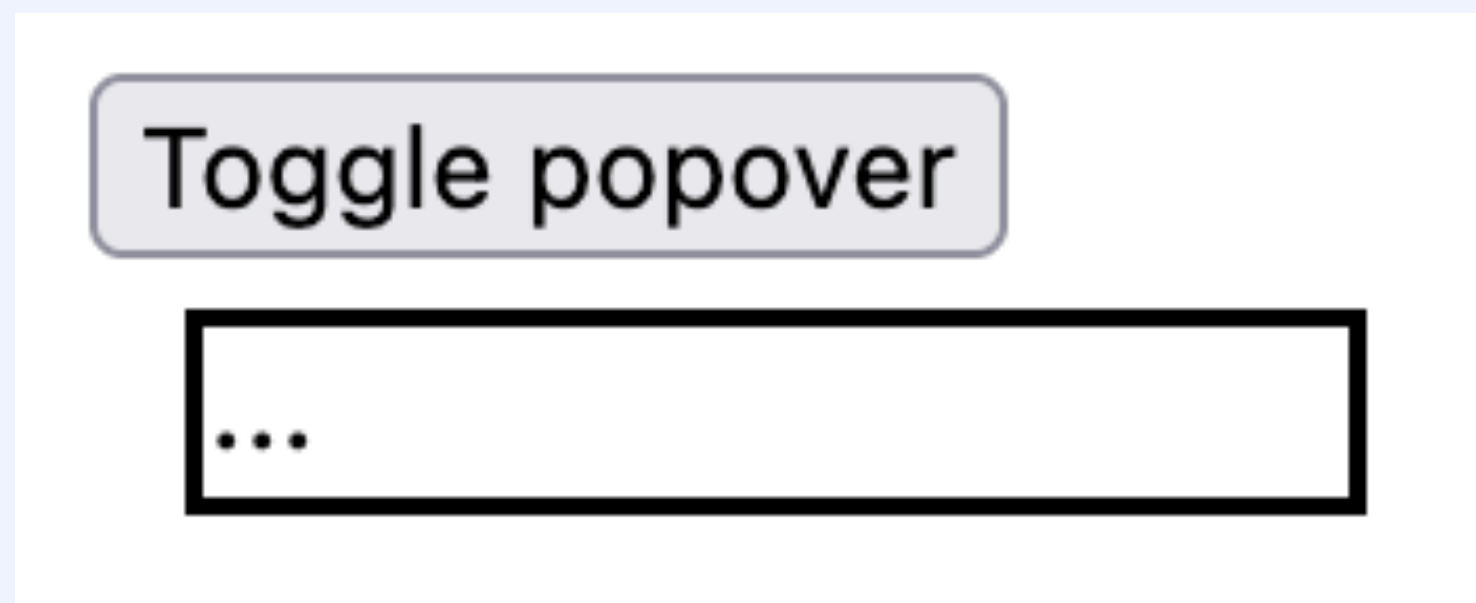


```
<button>  
  Toggle popover  
</button>
```

```
<div>  
  ...  
</div>
```

[POPOVER]

*No JavaScript
required*



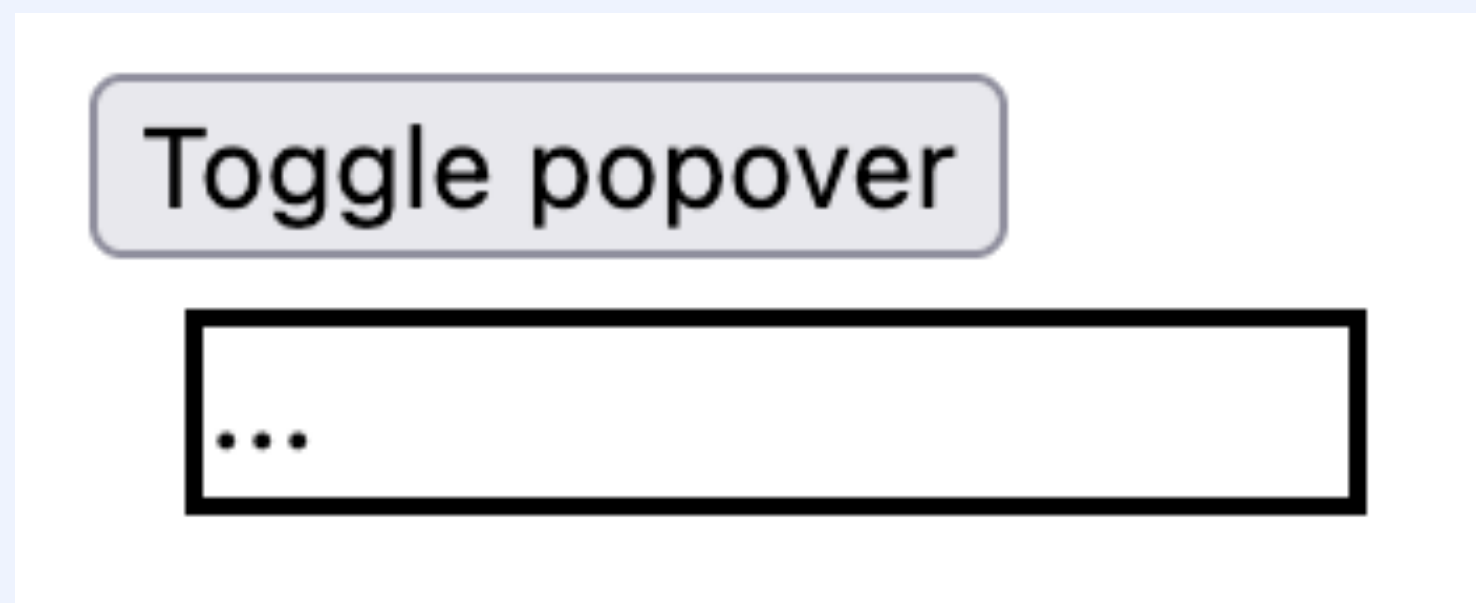
```
<button>  
  Toggle popover  
</button>
```

```
<div popover>  
  ...  
</div>
```

make it a
popover

[POPOVER]

*No JavaScript
required*



```
<button>  
  Toggle popover  
</button>
```

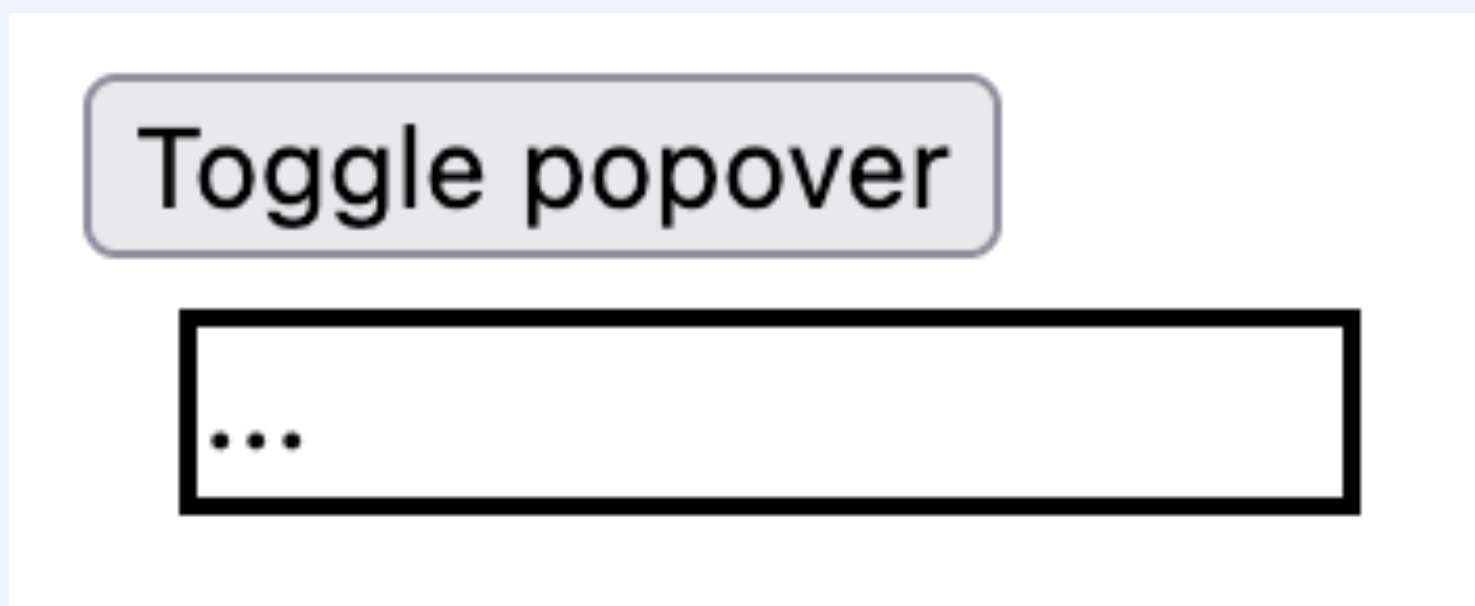
```
<div popover id="p">
```

```
  ...  
</div>
```

add a
unique ID

[POPOVER]

*No JavaScript
required*



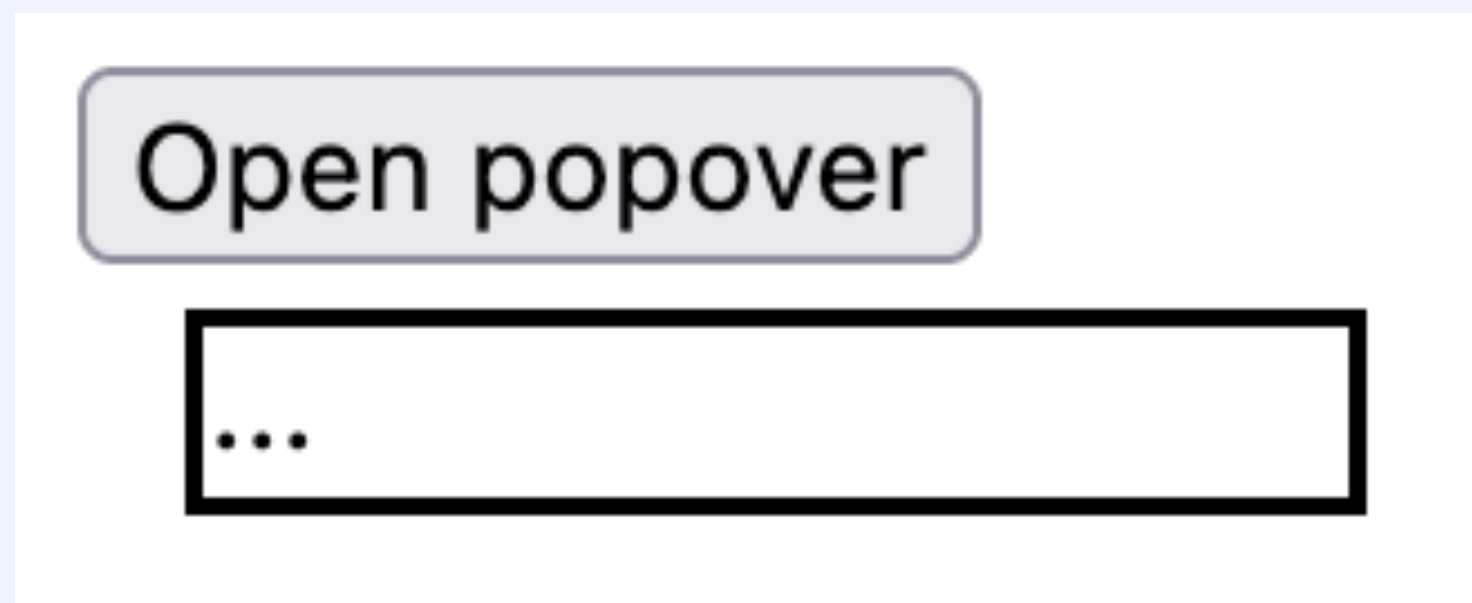
point button to ID

```
<button popovertarget="p">  
  Toggle popover  
</button>
```

```
<div popover id="p">  
  ...  
</div>
```

[POPOVER]

*Can open, close
or toggle*



```
<button popovertarget="p"  
  popovertargetaction="show">  
  Open popover  
</button>
```

```
<div popover id="p">  
  ...  
</div>
```


[POPOVER]

Has auto and manual modes

```
// Closes other popovers  
// when opened; has  
// light dismiss.  
<div popover="auto">  
  ...  
</div>
```

[POPOVER]

Has auto and manual modes

```
// Closes other popovers  
// when opened; has  
// light dismiss.
```

```
<div popover="auto">  
  ...  
</div>
```

```
// No closing of others,  
// no light dismiss
```

```
<div popover="manual">  
  ...  
</div>
```

[POPOVER]

*Open/close
with script*

```
// show as popover  
element.showPopover();
```

ALL MAJOR BROWSERS SUPPORT POPOVER



in Chrome/Edge >114

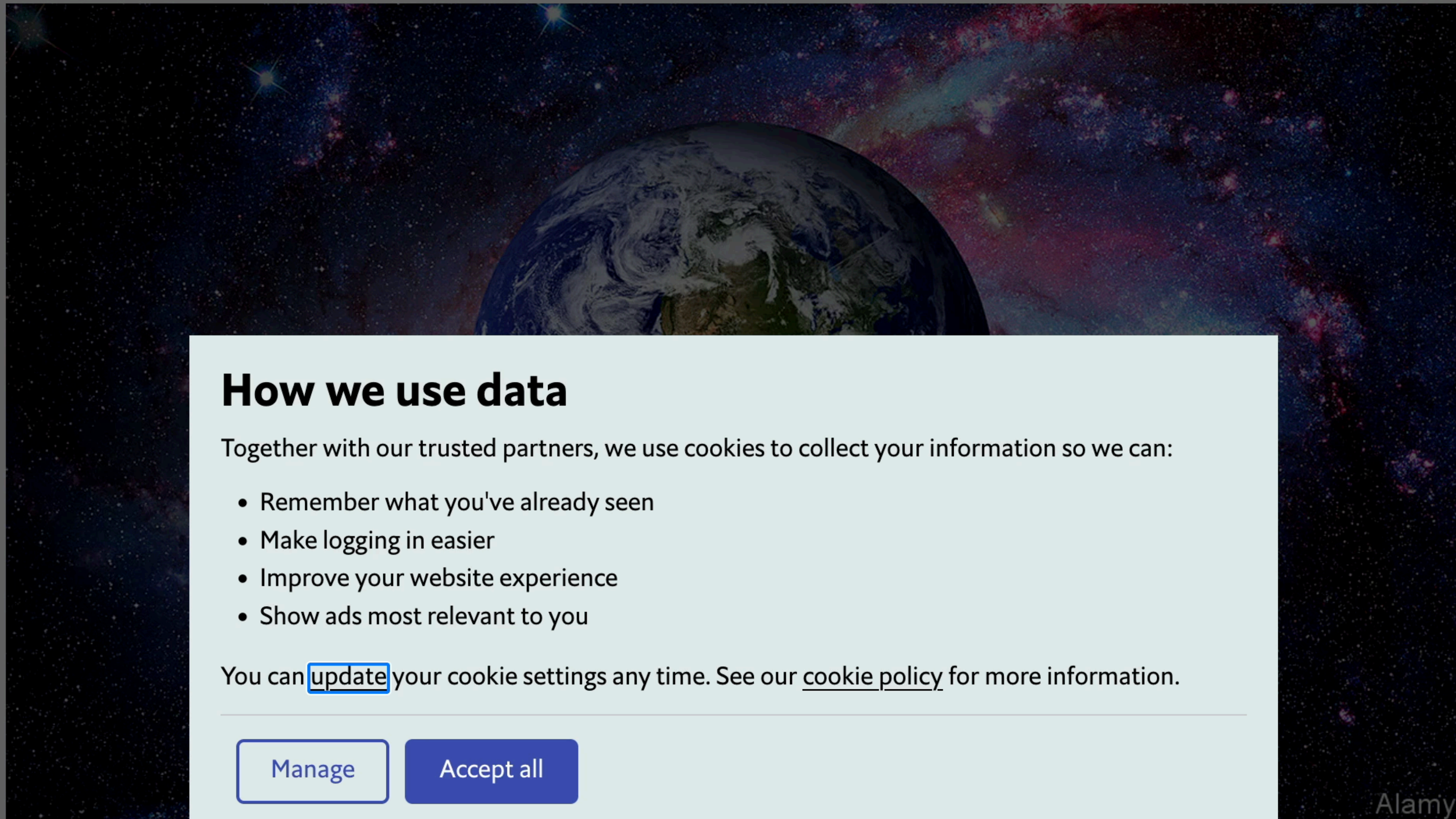
Safari > 17

Firefox > 125



**HOW ARE
THESE PATTERNS
DIFFERENT?**

MODAL VS **NON-MODAL**



How we use data

Together with our trusted partners, we use cookies to collect your information so we can:

- Remember what you've already seen
- Make logging in easier
- Improve your website experience
- Show ads most relevant to you

You can [update](#) your cookie settings any time. See our [cookie policy](#) for more information.

Manage

Accept all

Jul 25th 2019

Share

Novacene: The Coming Age of Hyperintelligence. By James Lovelock with Bryan Appleyard. *The MIT Press*; 160 pages; \$22.95. Allen Lane; £14.99.



MijnOverheid

H.A. de Vries

[Uitloggen](#)

- Home
- Berichtenbox
- Lopende zaken
- Identiteit
- Financiën
- Werk
- Gezondheid**
- Wonen
- Vervoer

Wilt u uw sessie verlengen?

Uw sessie is mogelijk verlopen. Als u te lang niks hebt gedaan, wordt u uit veiligheidsoverwegingen uitgelogd.

Kies "Ja" om uw sessie te verlengen, mogelijk moet u dan opnieuw inloggen.

[Uitloggen](#)

[Ja, verlengen](#)

n na uw overlijden wel of niet

[Ga naar Donorregister](#)


Mijn PGB

A “game over” screen

@hdv@front-end.social



GAME OVER

Press 
to try again



Toestemmingen & Verklaringen

Onderstaande toestemmingen & verklaringen dienen bekend te zijn voordat u verder kunt



[name redacted]

Toestemmingen

Mag op uitstapje met de auto.

 Onbekend

Verklaringen

Koortsvrije periode vereist voor terugkeer naar opvang

 Onbekend

Dragen van sieraden

 Onbekend

Bij 3 keer diarree, graag meteen ophalen

 Onbekend



[name redacted]

ARDS “flexible schedule” have an attract
pandemic workplace full of motivated v
uctive and family-friendly way, and of
alented employees. But flexibility is in
ding on the type of job someone is in,

story. Enjoy more audio and podcasts on [iOS](#) or

a blue-collar worker in an industry that operates in shifts, for example,

Save


Share


Give

Share



 Copy link

 Share on Facebook

 Share on Twitter

 Share on WhatsApp

 Share on LinkedIn



Image description

Pieter pot website with various Fritz kola beverages on sale

Dismiss

ALT

pie
tor

Nog gemakkelijker
verpakkingsvrij winkelen?

Main image



REPLACE

 Upload

 Browse

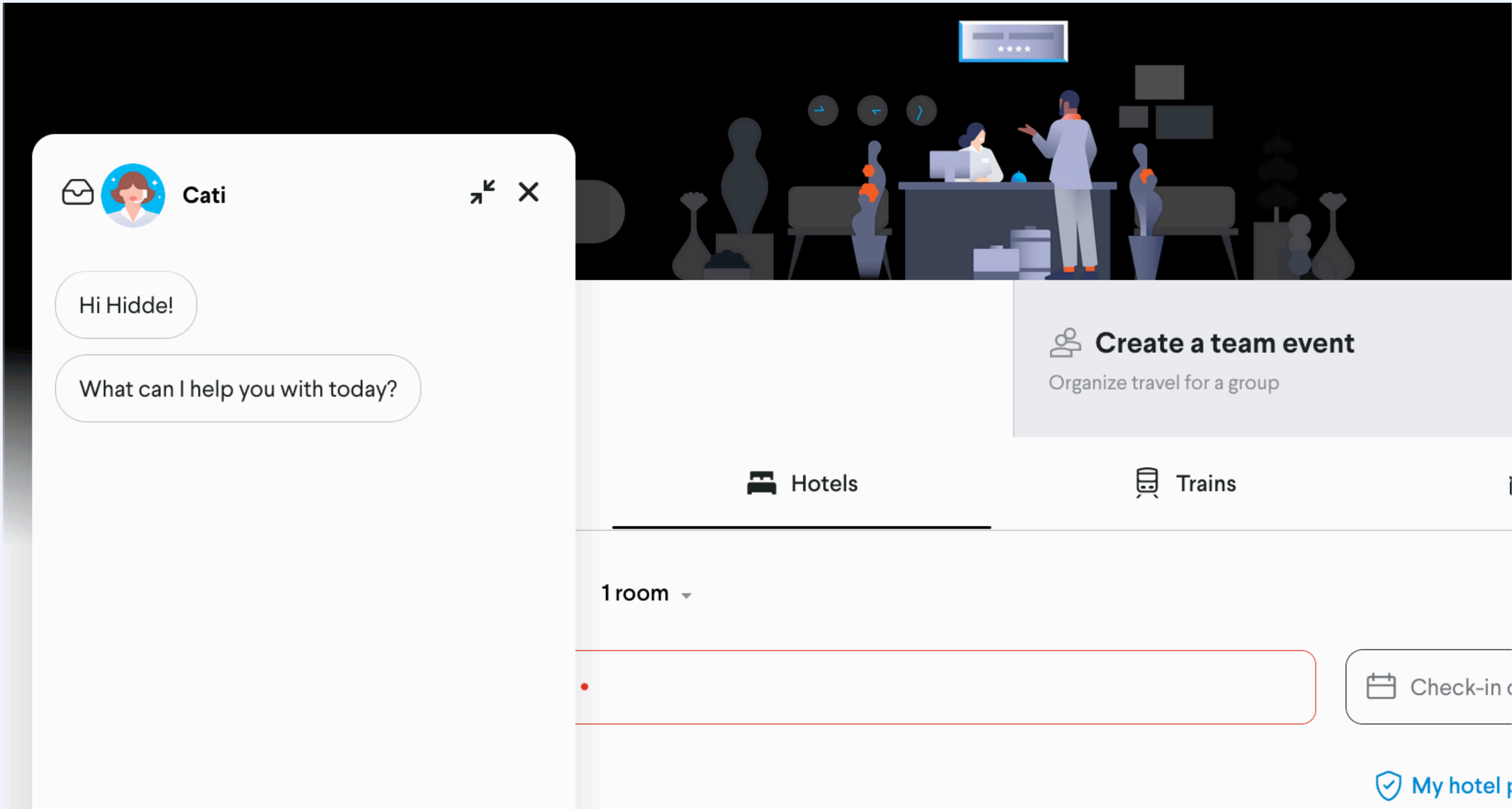
 Download original file

 Copy URL

 Clear field

Alternative text

What's on this picture?



Making an element *modal* is a drastic measure, the user can do nothing else. Use it sparingly!

MODAL VS **NON-MODAL**

LIGHT DISMISS VS **EXPLICIT DISMISS**

Latest Tweets

Retweets



Everyone ▾

Explicit dismiss example

 Everyone can reply



Tweet

Font chooser: light dismiss

@hdv@front-end.social



Light dismiss example



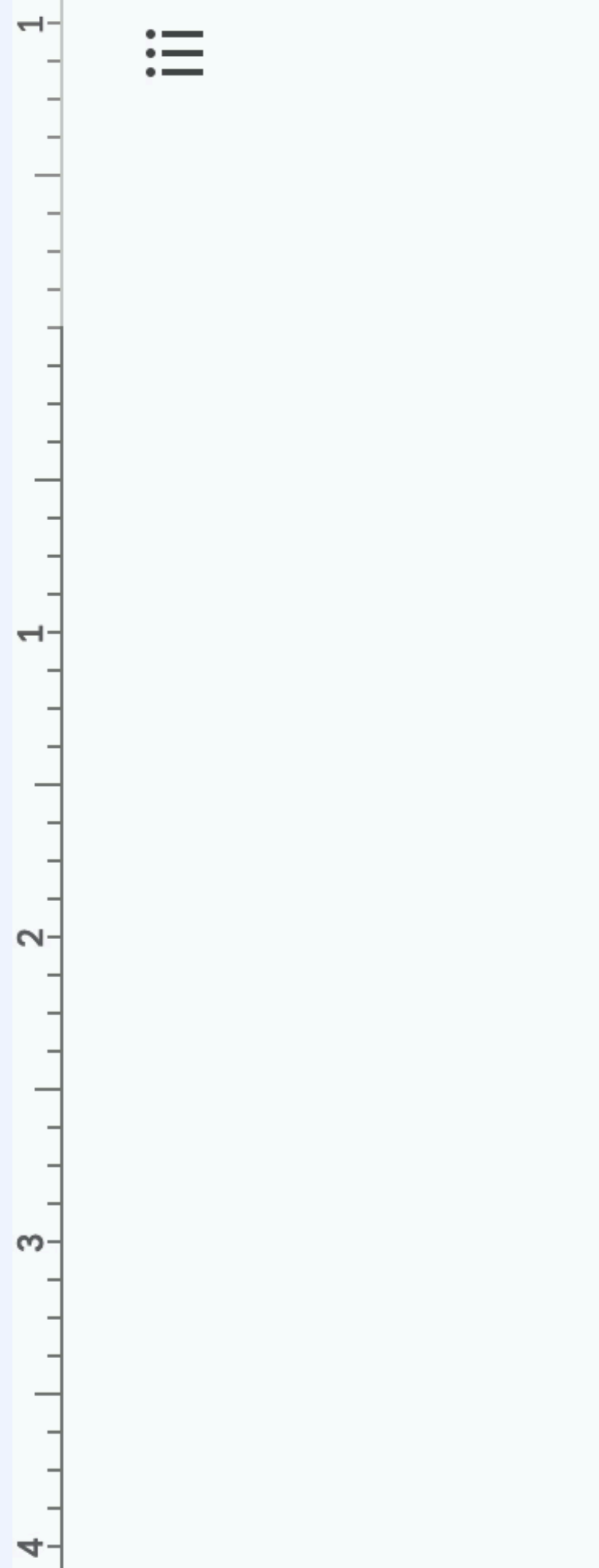
File Edit View Insert Format Tools Extensions Help



Share



Navigation and formatting toolbar with icons for undo, redo, print, read aloud, zoom (100%), title, font (Arial), font size (26), bold, italic, underline, text color, link, insert, image, list, indent, and a pencil icon.



Light dismiss|



MODAL VS **NON-MODAL**

LIGHT DISMISS VS **EXPLICIT DISMISS**

Z-INDEX VS **TOP LAYER**

With z-index, you can stack elements on top of each other.

The element that is first in the DOM is painted first, each subsequent element on top of the previous and

With z-index, you can stack elements on top of each other.

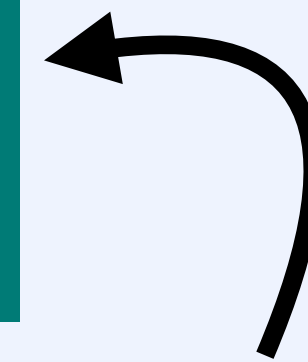
The element that is first in the DOM is painted first, each subsequent element on top of the previous and

```
z-index: 1;
```

With z-index, you can stack elements on top of each other.

The element that is first in the DOM is painted first, each subsequent element on top of the previous and

The element that is first in the DOM is painted first, each subsequent element on top of the previous and



```
z-index: 2;
```

The *top layer* is above everything else, its own layer above the main document

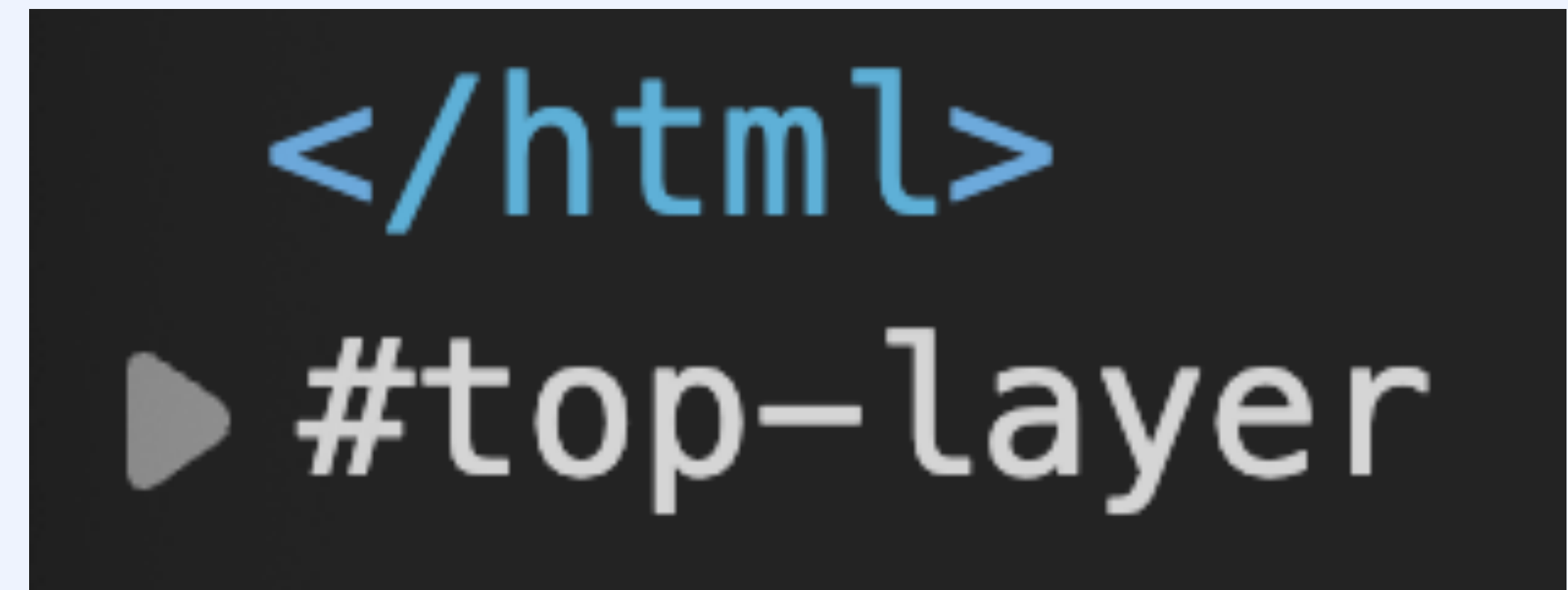
drafts.csswg.org/css-position-4/#top-layer

The element that is first in the DOM is painted first, each subsequent element on top of the previous and

The element that is first in the DOM is painted first, each subsequent element on top of the previous and

The *top layer* is above everything else, its own layer above the main document

drafts.csswg.org/css-position-4/#top-layer



Layered based on order of top layer addition, not z-index

drafts.csswg.org/css-position-4/#top-layer

The element that
is first in the DOM
is painted first,
each subsequent
element on top of
the previous and

The element that
is first in the DOM
is painted first,
each subsequent
element on top of
the previous and

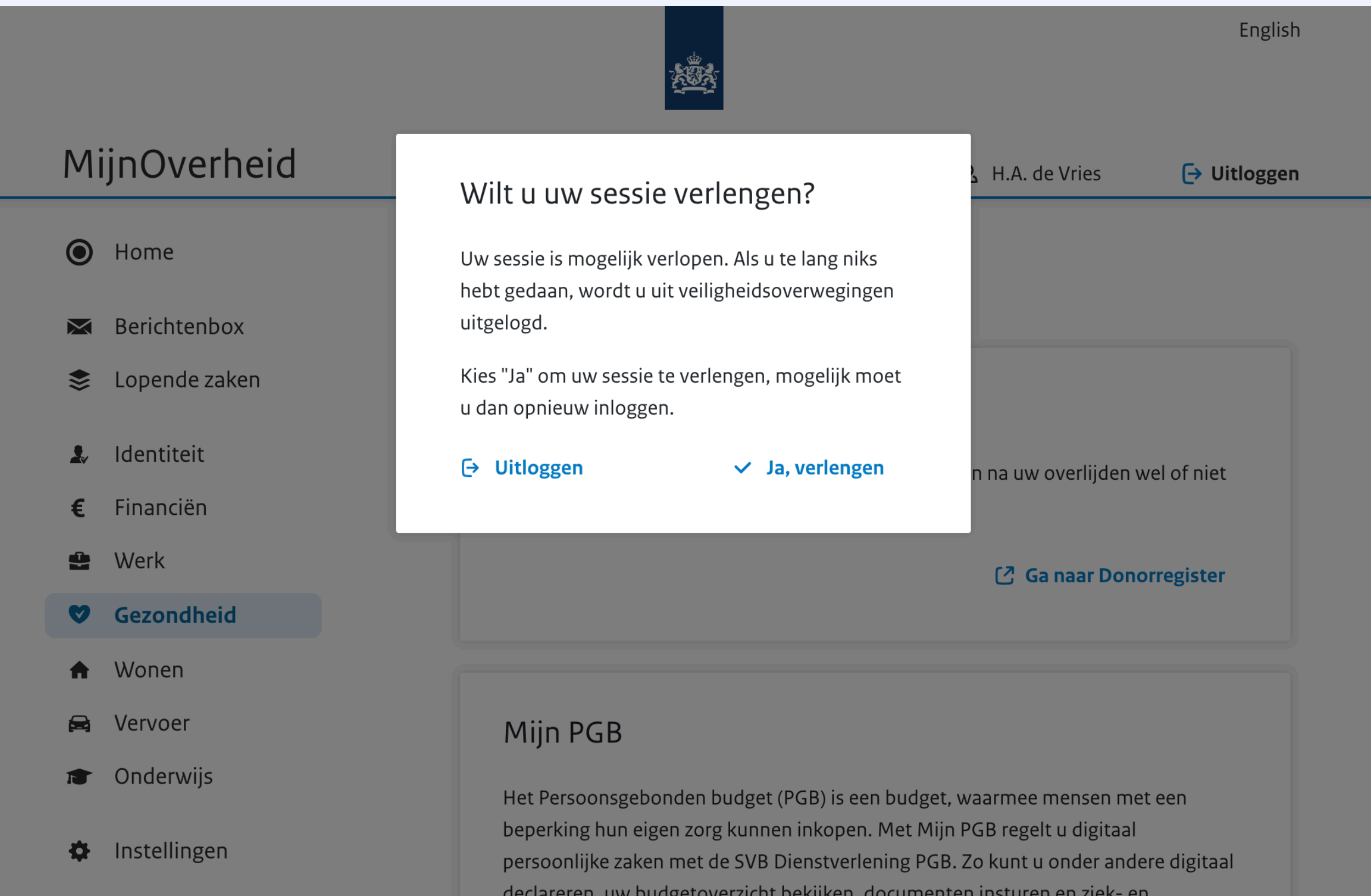
top layer, top
layer, top layer,
top layer, top
layer, top layer

MODAL VS **NON-MODAL**

LIGHT DISMISS VS **EXPLICIT DISMISS**

Z-INDEX VS **TOP LAYER**

BACKDROP



Sometimes elements
have a backdrop.

Top layer elements
have a built-in
styleable backdrop
(`::backdrop`)

MODAL VS **NON-MODAL**

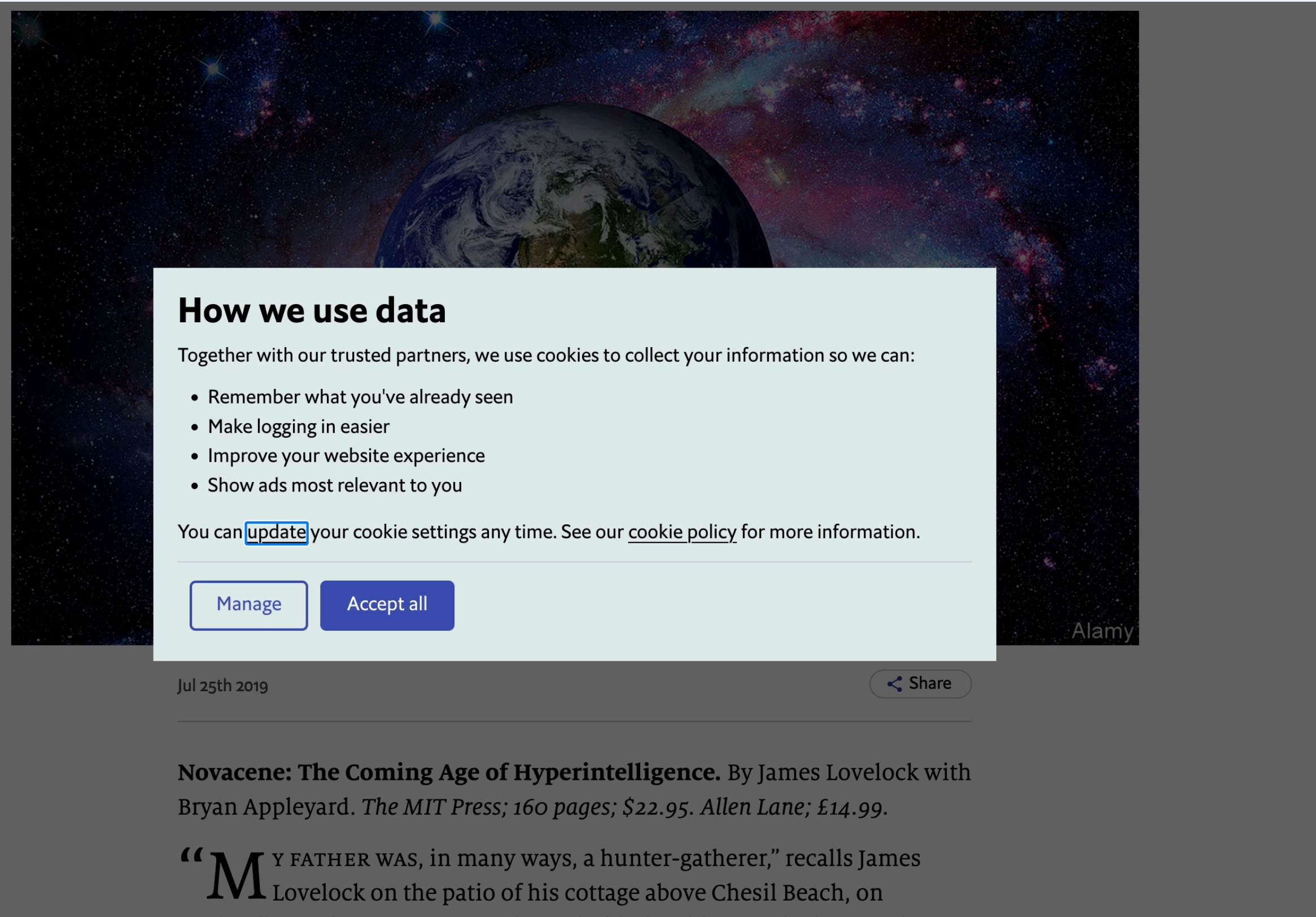
LIGHT DISMISS VS **EXPLICIT DISMISS**

Z-INDEX VS **TOP LAYER**

BACKDROP

KEYBOARD FOCUS TRAP

KEYBOARD FOCUS TRAP



Sometimes you want to prevent users from exiting a component with their Tab key.

This is *always* temporary.

MODAL VS **NON-MODAL**

LIGHT DISMISS VS **EXPLICIT DISMISS**

Z-INDEX VS **TOP LAYER**

BACKDROP

KEYBOARD FOCUS TRAP

MODAL VS NON-MODAL

`<dialog>` with
`showModal()`

VS

`<dialog>`
with `show()`

Z-INDEX VS TO

popover

BACKDROP

KEYBOARD FOCUS TRAP

MODAL VS NON-MODAL

LIGHT DISMISS VS **EXPLICIT DISMISS**

popover="auto"

popover="manual"

any <dialog>

BACKDROP

KEYBOARD FOCUS TRAP

MODAL VS NON-MODAL

popover

<dialog>
with show()

VS

<dialog> with
showModal()

DISMISS

Z-INDEX VS TOP LAYER

BACKDROP

KEYBOARD FOCUS TRAP

MODAL VS NO

browser provided
w/ `::backdrop`

LIGHT DISMISS VS EX

popover

consider if modal
<dialog> not better

Z-INDEX VS TO

<dialog> with
`showModal()`

BACKDROP

KEYBOARD FOCUS TRAP

MODAL VS NO

browser provided
w/ `::backdrop`

LIGHT DISMISS VS EX

popover

consider if modal
<dialog> not better

Z-INDEX VS TO

<dialog> with
`showModal()`

BACKDROP

KEYBOARD FOCUS TRAP

MODAL VS NON-MODAL

LIGHT DISMISS VS EXPLICIT DISMISS

Z-INDEX VS TOP

browser provided

BACKGROUND

`<dialog>` with
`showModal()`

KEYBOARD FOCUS TRAP

ACCESSIBILITY SEMANTICS

Accessibility semantics:
meta information that browsers expose,
for tools to use

Roles


```
<h1>
```

heading



heading

GOV.UK Performance **BETA**
Services data Web traffic data Get a dashboard About Prototypes Blog

Performance > Services data

Services data

114 services

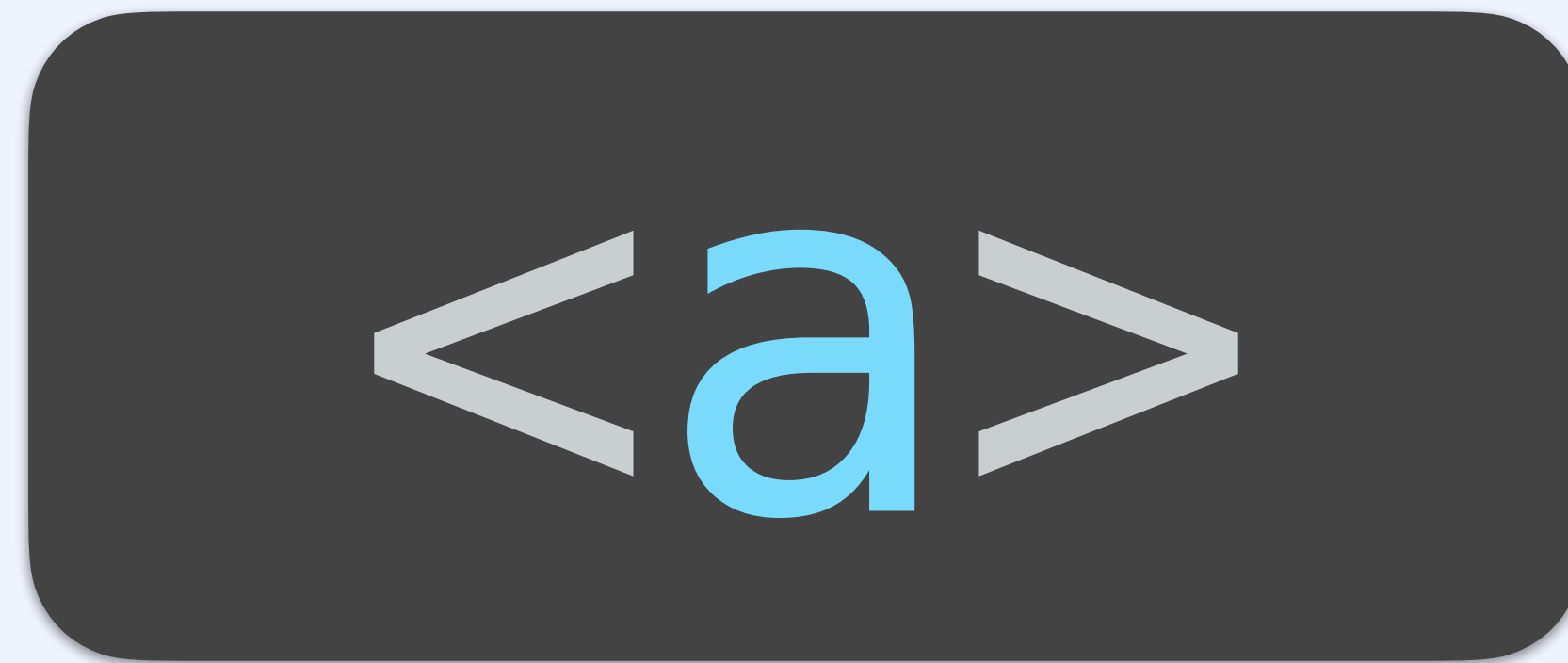
Transactions per year
1.56bn
total for [94 services out of 114](#)

Digital take-up
90.2%
weighted average for [70 services out of 114](#)

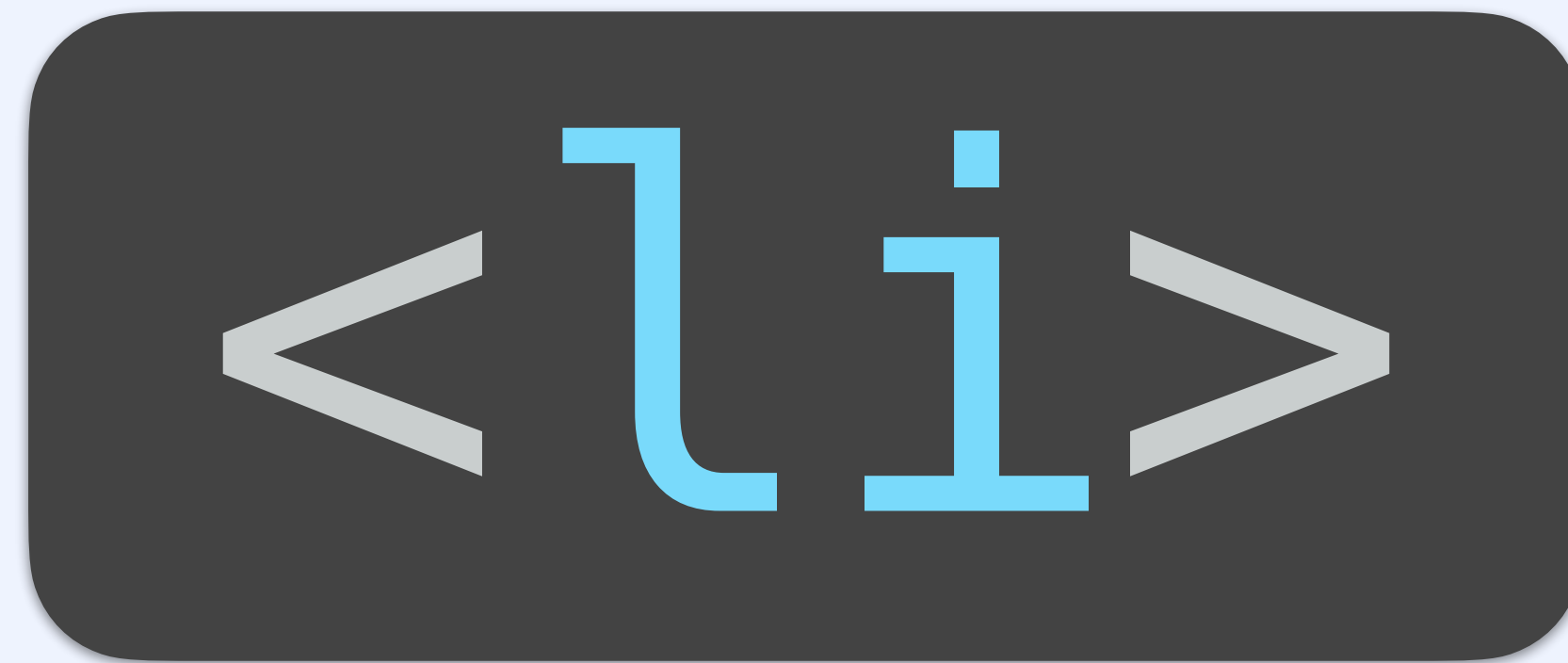
Headings

- 1: Services data
- 2: Number of services
- 2: Filter services by keyword or department
- 2: Totals and averages for filtered services
- 3: Transactions per year
- 3: Annual cost
- 3: Cost per transaction
- 3: Digital take-up
- 3: User satisfaction
- 3: Completion rate
- 2: List of services
- 2: Services and information
- 2: Departments and policy
- 2: Support links

weighted average for [9 services out of 114](#) weighted average for [9 services out of 114](#)



link



list item

```
<div>
```

[no role]

```
<div role="link">
```

link

Roles: dialog

<dialog>

dialog

Roles: popover

```
<div popover>
```

[no role]

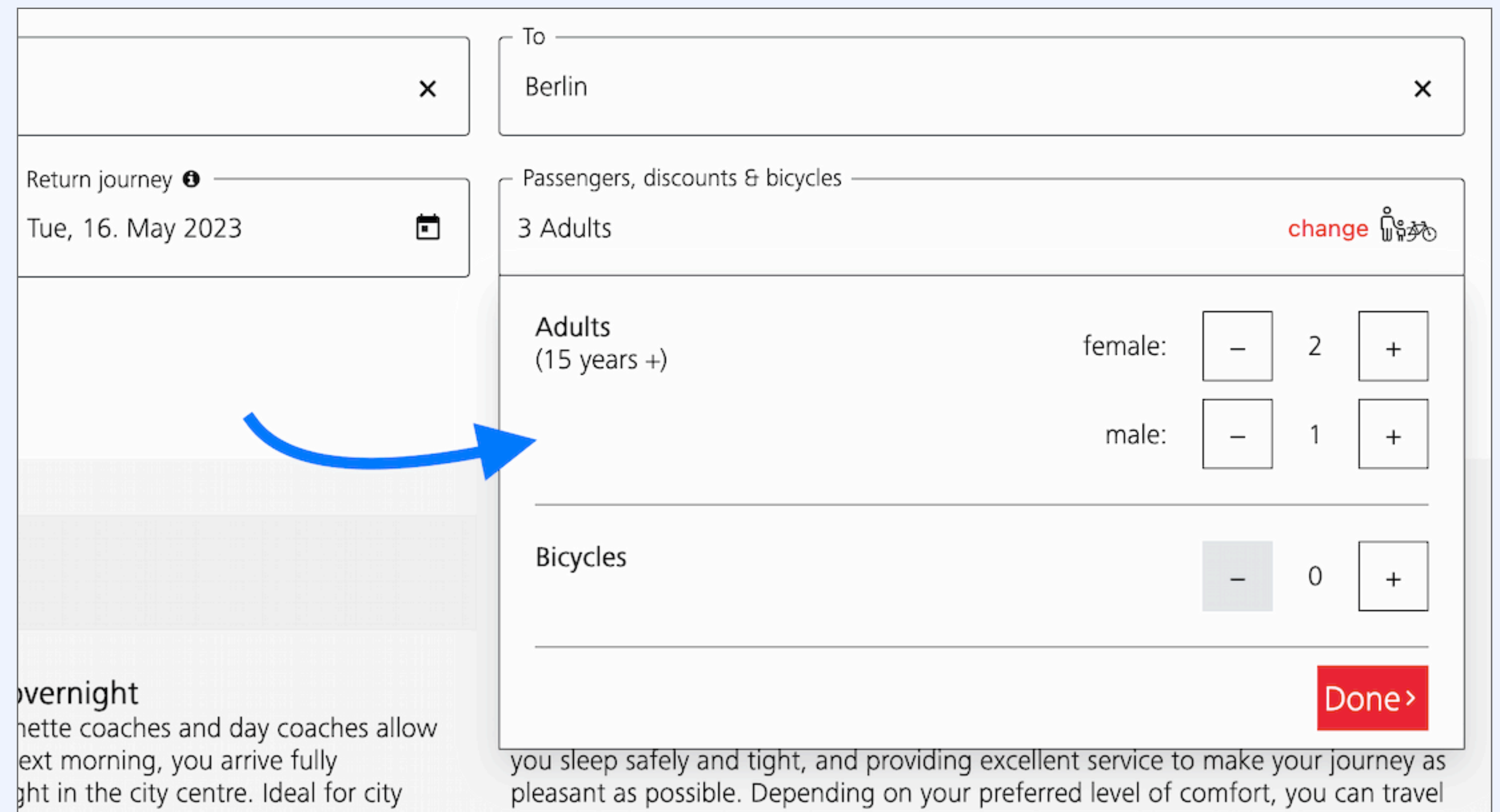
The popover attribute adds
behaviour, but not a *role*

(you choose a role based on the situation)

For components that are like a smaller window / subwindow on top of the main page

DIALOGS

`<dialog>` or
`role="dialog"`



The image shows a screenshot of a travel booking interface. A dialog box is open, displaying options for a return journey. The dialog has a title bar with a close button (x). The main content area is divided into sections: 'Return journey' with a date of 'Tue, 16. May 2023', 'To' (Berlin), and 'Passengers, discounts & bicycles'. The passenger section shows '3 Adults' and a 'change' button with a person and bicycle icon. Below this, there are controls for 'Adults (15 years +)', 'female' (2), 'male' (1), and 'Bicycles' (0). A 'Done >' button is at the bottom right. A blue arrow points from the left side of the dialog to the passenger selection section.

Category	Count	Controls
Adults (15 years +)	3	female: - 2 +, male: - 1 +
Bicycles	0	- 0 +

For components that are like a smaller window / subwindow on top of the main page

Listen to this story. Enjoy more audio and podcasts on [iOS](#) or [Android](#).



That is just one of his many contributions to the search for life on other planets. In 1970, he discovered the atmosphere in the 1970s, and his nomination to Britain's Royal Society for chemistry and physics—all because he is best known (it is named after Gaia,

Listen to this story ×

Save time by listening to our audio articles as you multitask

OK

Delock honed a method to find and quantify CFCs in the harmful chemicals. After a decade of work in biology, he is best known for his theory for which he is best known (it is named after Gaia, Earth).



Discover

Travel information

Customer service

Business Agents site In het Nederlands

Search

Log in

Disruptions and maintenance (9)



✓ **Number 1 in the Netherlands**
Compare European train journeys

✓ **Great deals**
No hidden costs

✓ **24/7 NS service**
Reliable and personal

This summer to France?

Book Thalys and TGV

Our holiday tips



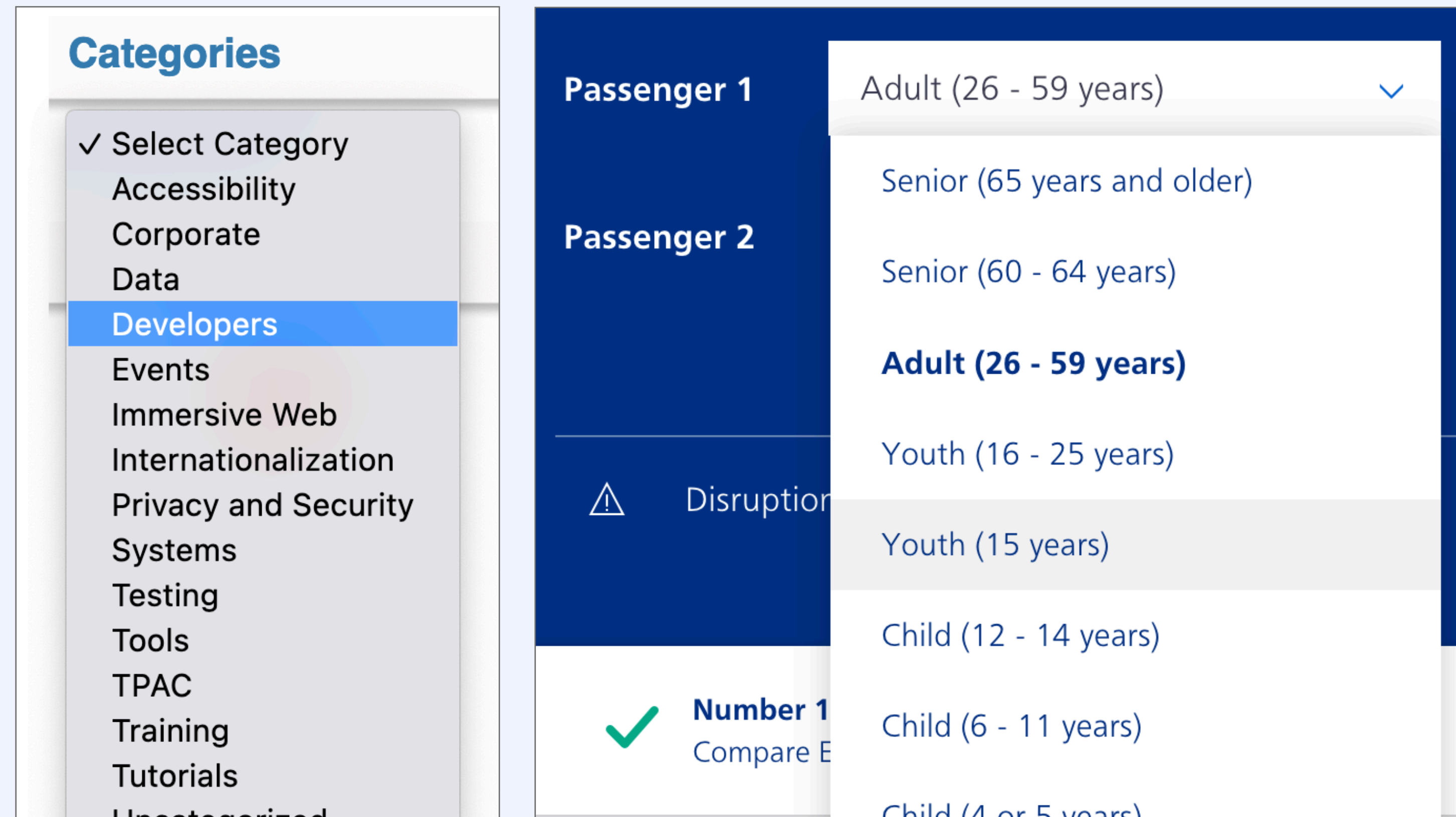
Top destinations



For components that let the user choose from a list, the listbox wraps the choices

LISTBOX

`role="listbox"`



Transfer



Country of the bank of the recipient

Netherlands



Amount

1,337.00

Currency

EUR (Euro)



USD (United States dollar)

PLN (Polish zloty)

CHF (Swiss franc)

SEK (Swedish krona)

Recipient's name



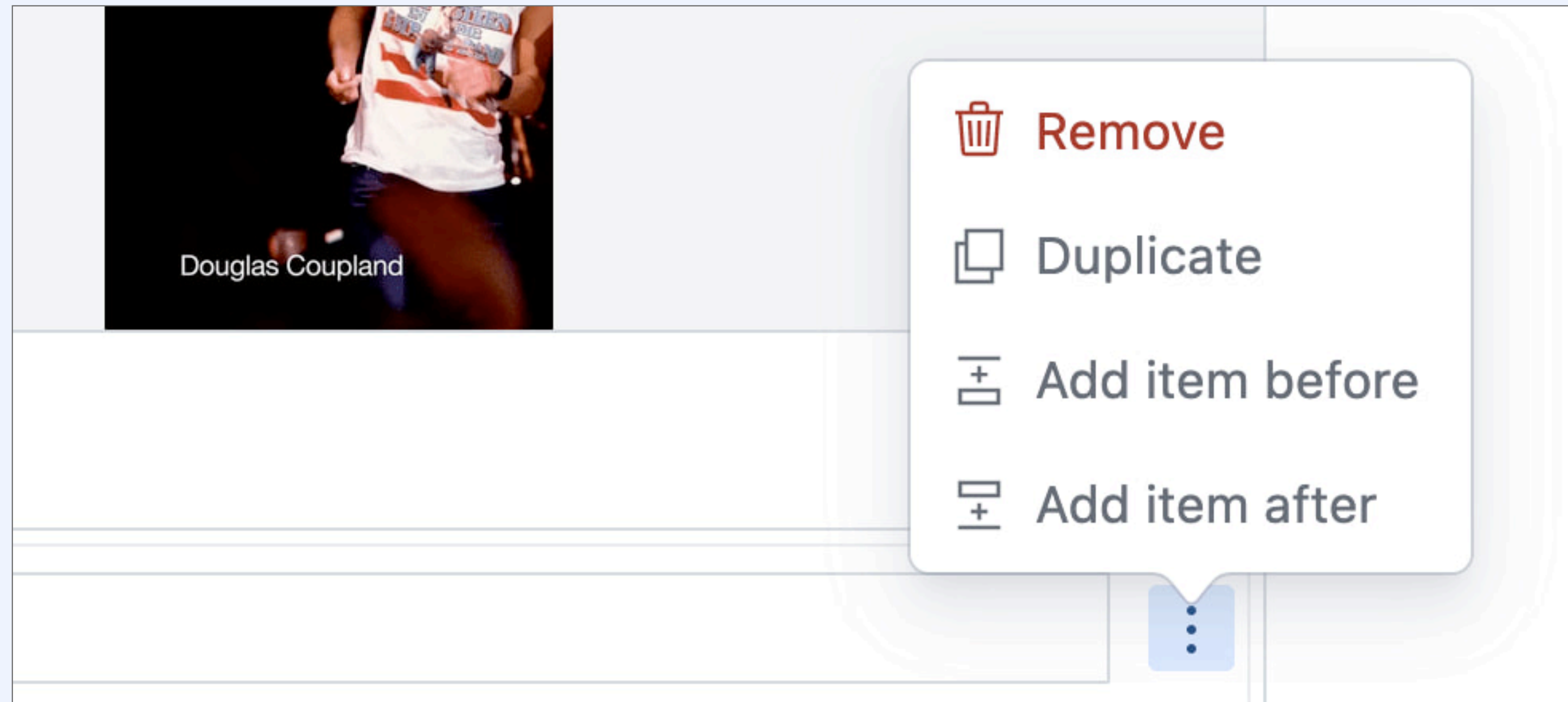
LISTBOX

role="listbox"

For components that offer the user a list of choices that are actions (like in an *application*).

MENUS

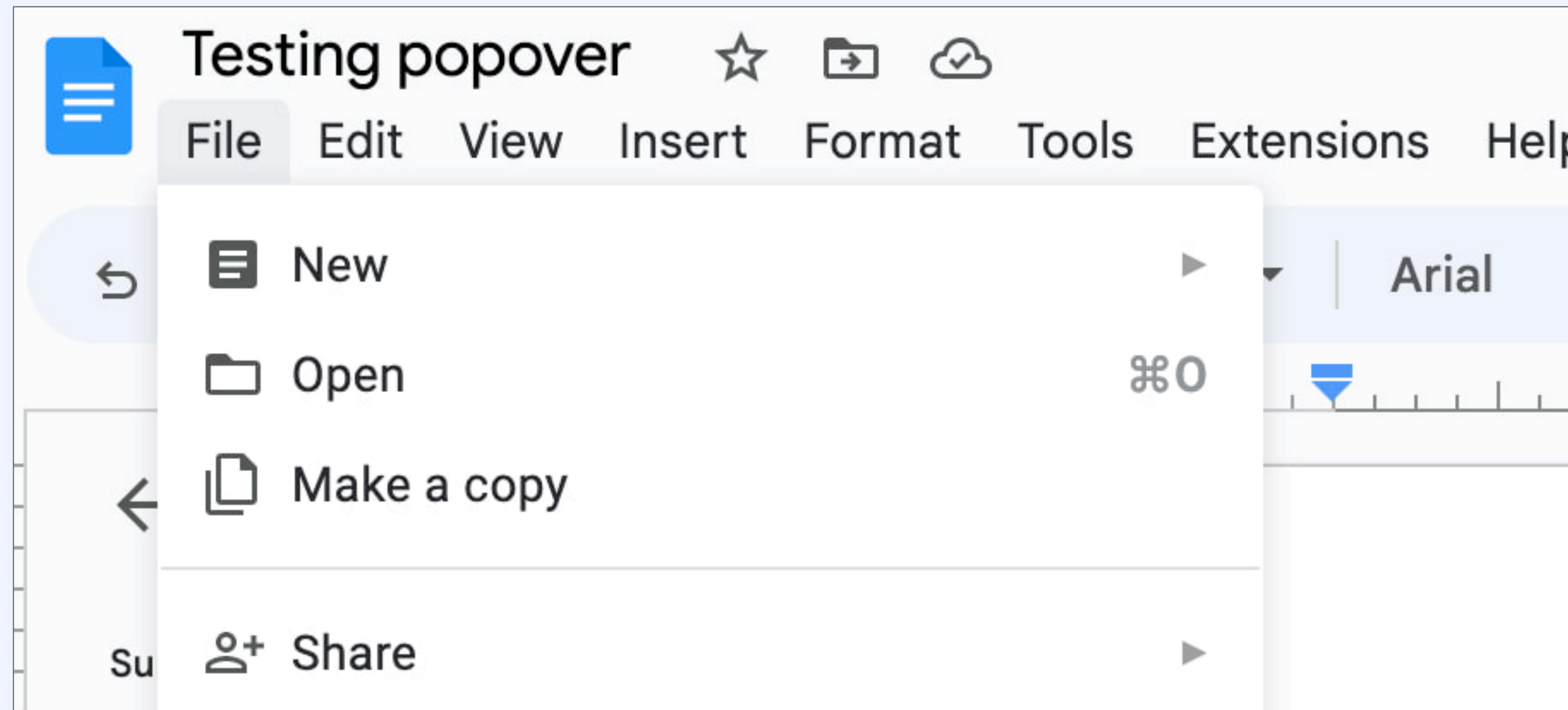
`role="menu"`



For components that offer the user a list of choices that are actions (like in an *application*).

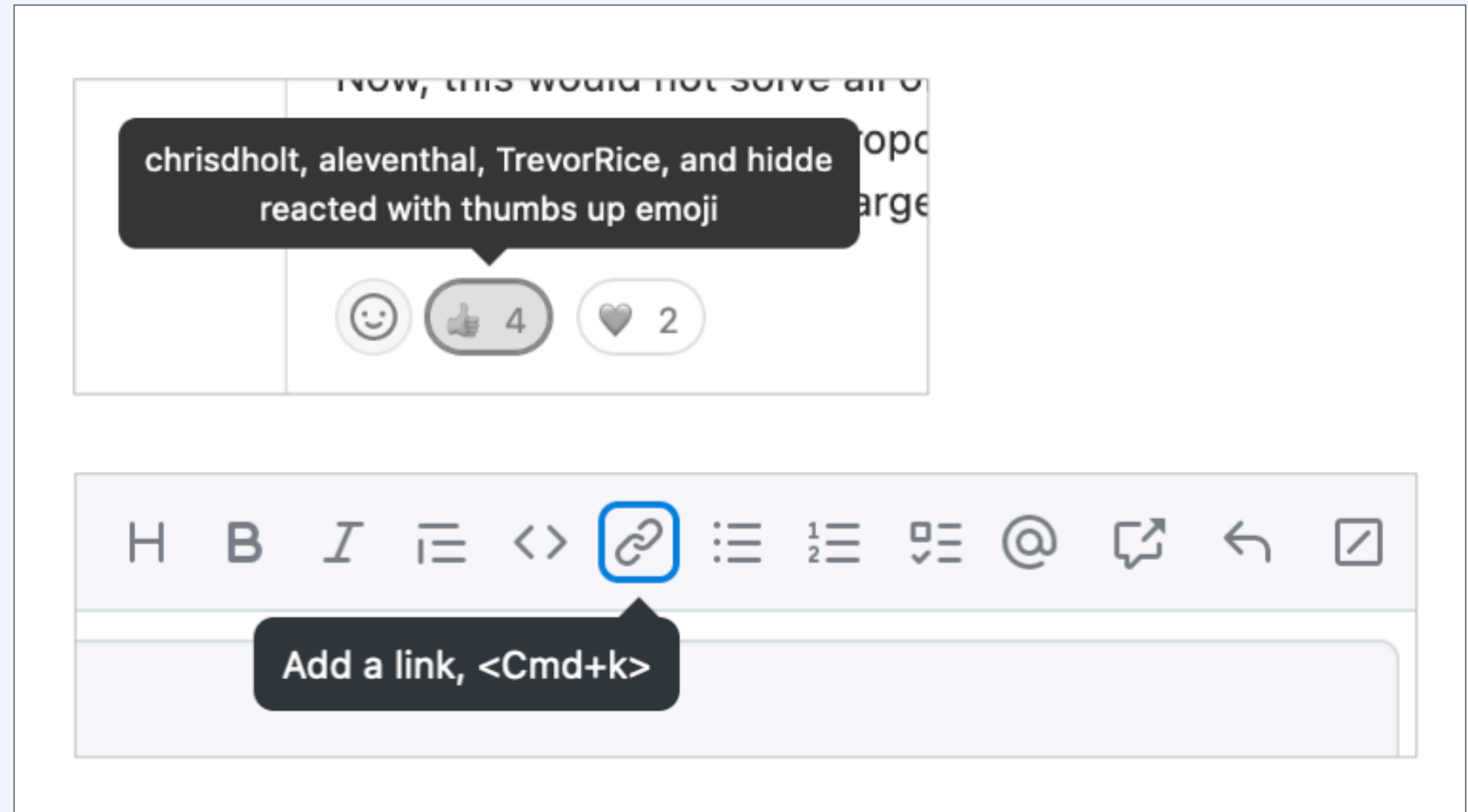
MENUS

`role="menu"`



Plain text suggestions

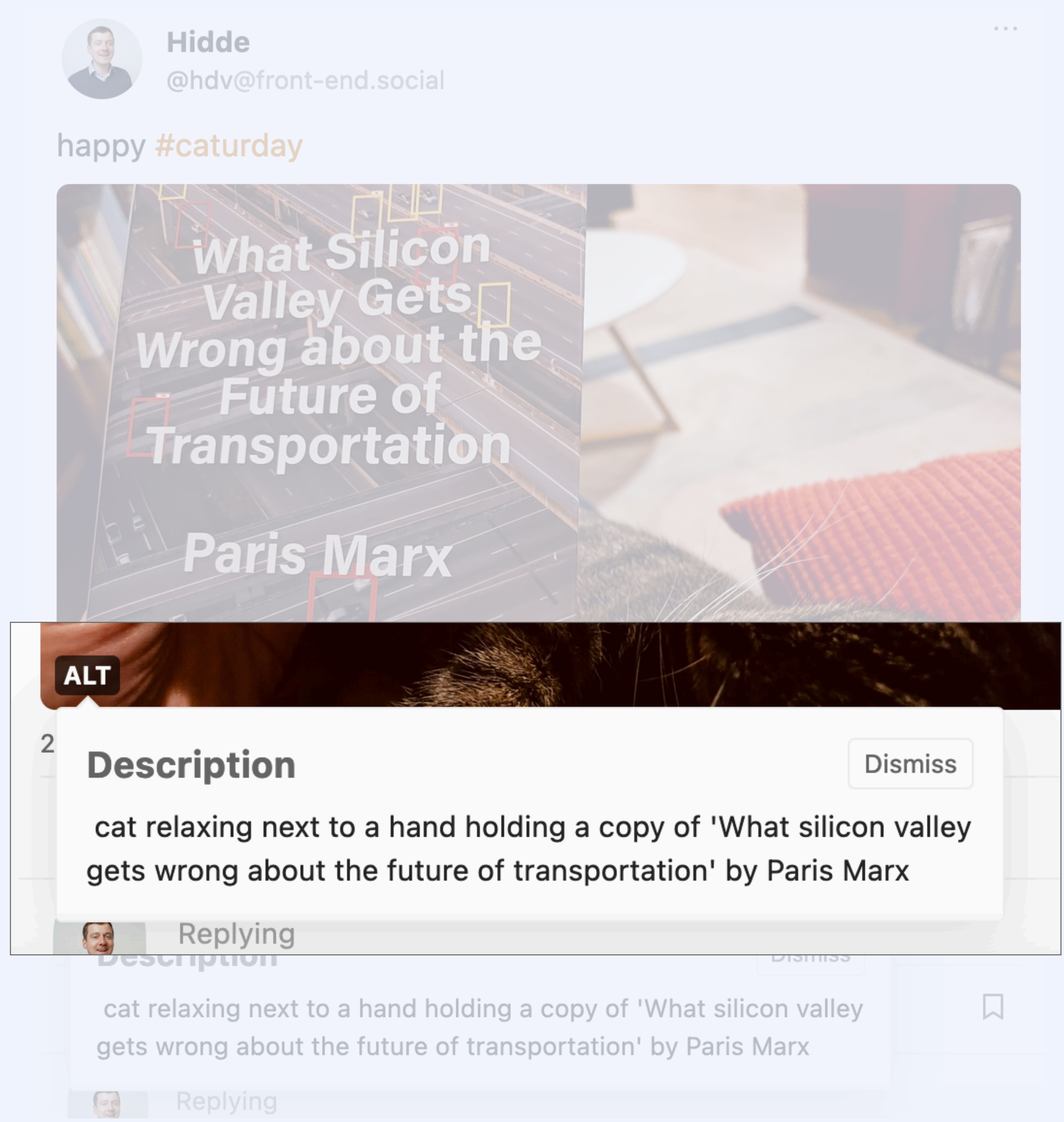
TOOLTIPS
role="tooltip"



TOOLTIPS

`role="dialog"`

More than plain text, maybe better as toggletips



DIALOGS

`<dialog>` or
`role="dialog"`

LISTBOXES

`role="listbox"`

MENUS

`role="menu"`

PLAIN TEXT

TOOLTIPS

`role="tooltip"`

DIALOGS

`<dialog>` or
`role="dialog"`

LISTBOXES

`role="listbox"`

some browsers will add
the group role as a fallback

MENUS

`role="menu"`

PLAIN TEXT

TOOLTIPS

`role="tooltip"`

ROLES

<dialog>

dialog (implicit)

ROLES

`<dialog>`

dialog (implicit)

`popover`

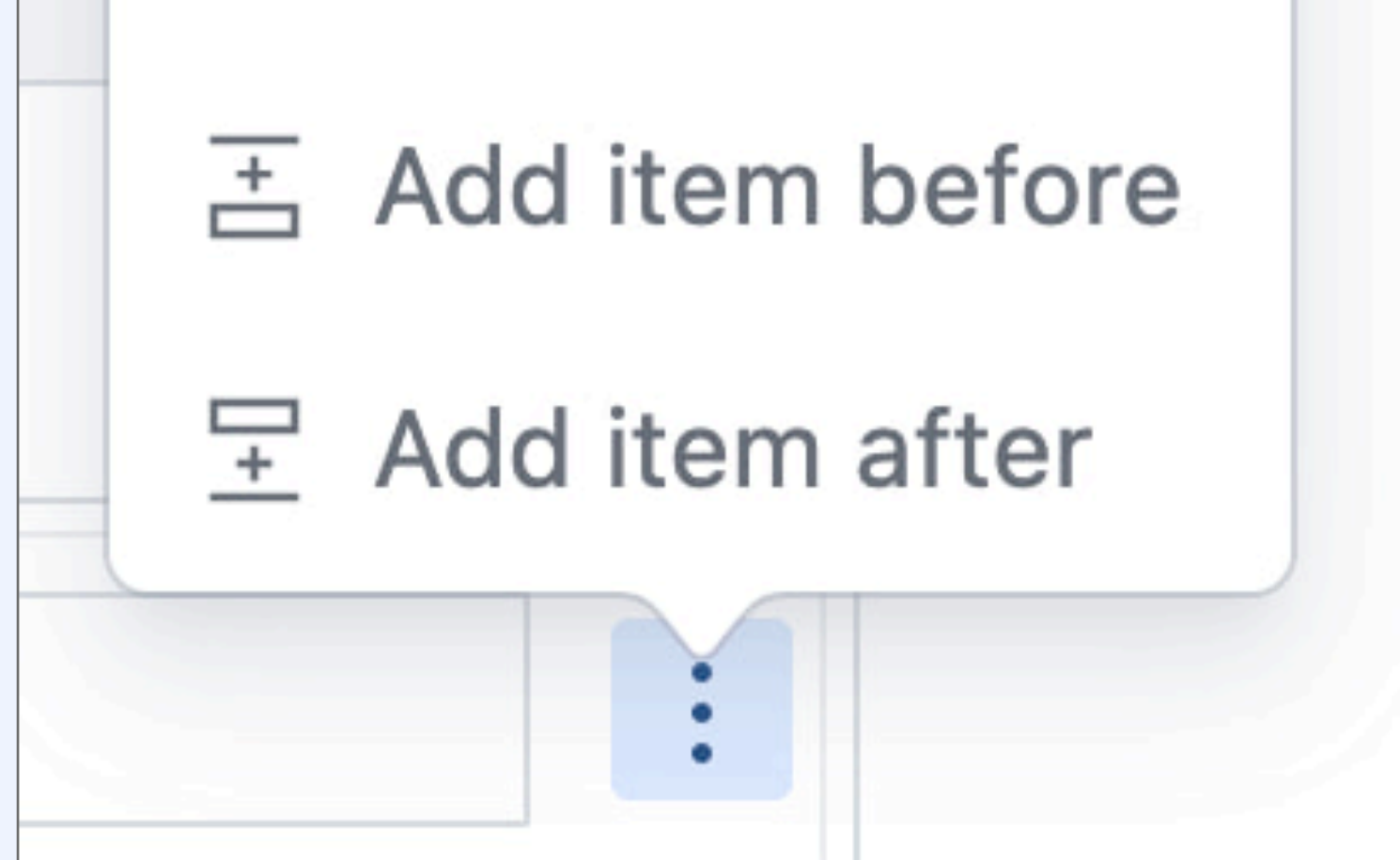
it depends. You choose an apt role,
could be **dialog**, **listbox**, **menu** or **tooltip**
(some browsers add **group** as fallback)

“Built-in” semantics

“Built-in” semantics for dialog

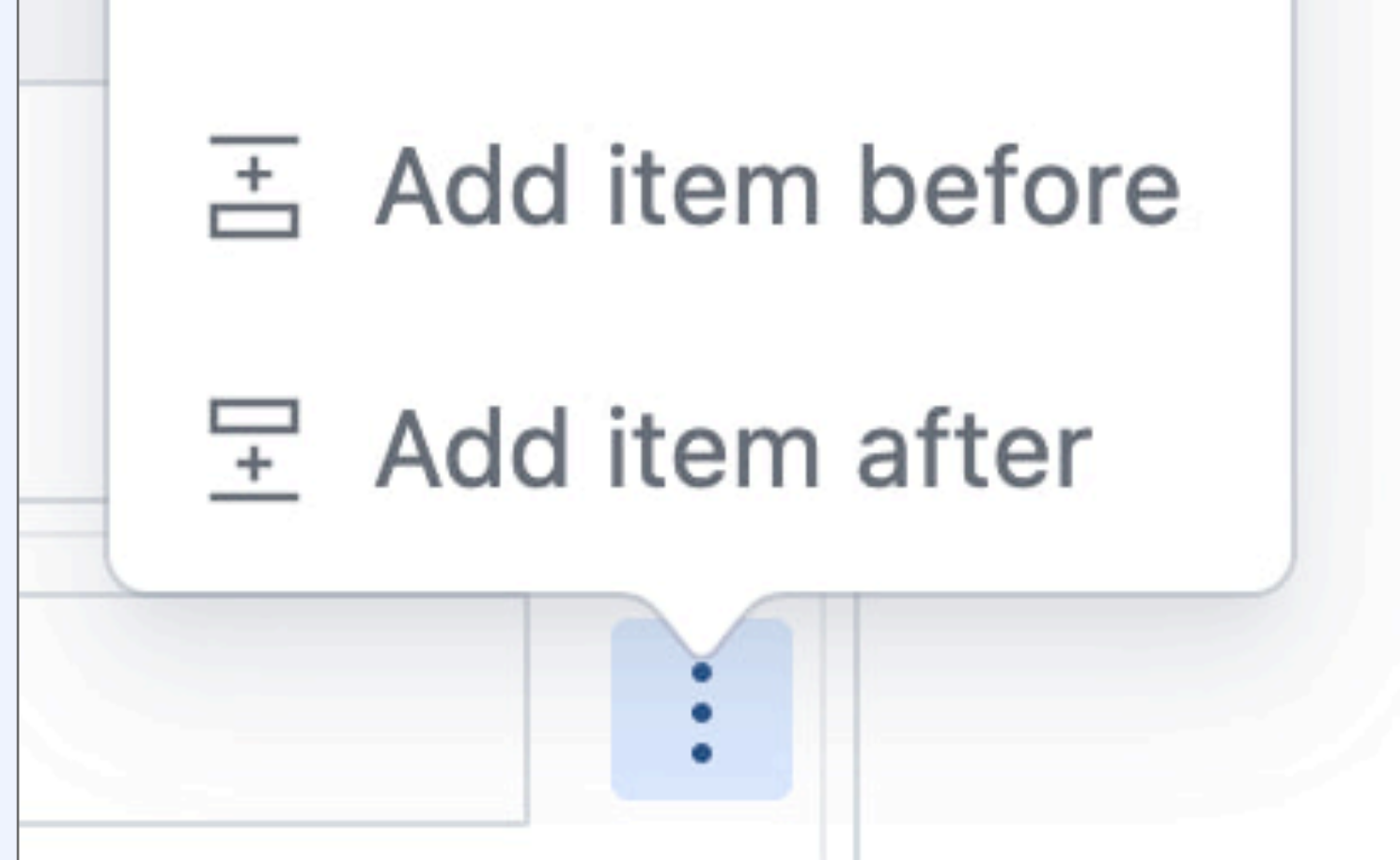
“Built-in” semantics for dialog

“Built-in” semantics for popover



`aria-expanded`

on buttons that toggle popovers
(set up via `popover target`)



aria-expanded
on buttons that toggle popovers
(set up via popover target)



aria-details

on buttons that toggle popovers
that don't immediately follow them

aria-details

on buttons that toggle popovers
that don't immediately follow them



aria-details

VS

aria-describedby

content retains structure
that user can jump to

content is flattened to
string that is announced

aria-details demo

The button Oppenheimer's Oscars is associated with some “details” that are at far away from it.

With JAWS and NVDA, you should be able to jump to those details.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam bibendum velit a posuere mattis. Mauris non quam vel ligula consequat convallis eget tincidunt arcu. Suspendisse potenti. Curabitur laoreet tortor vehicula risus commodo ornare eu vel mauris. Integer malesuada mi eget nulla ornare finibus. Duis vulputate dui in turpis pharetra, ut mattis ligula pretium. Curabitur facilisis nec elit nec ultrices. Phasellus blandit pretium nunc, egestas faucibus nibh congue ac. Donec vestibulum, velit eget tempor ornare, mauris nulla fringilla risus, sed commodo eros purus eu ex. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Nulla aliquam gravida egestas. Suspendisse iaculis fermentum nibh, in commodo lorem. Aliquam consequat neque nec mauris tincidunt convallis. Maecenas est urna, eleifend sit amet mollis ac, imperdiet ut quam. Donec vel turpis nec quam egestas commodo eget sit amet magna. Mauris consequat rutrum massa, ac semper leo lobortis id.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam bibendum velit a posuere mattis. Mauris non quam vel ligula consequat convallis eget tincidunt arcu. Suspendisse potenti. Curabitur laoreet tortor vehicula risus commodo ornare eu vel mauris. Integer malesuada mi eget nulla ornare finibus. Duis vulputate dui in turpis pharetra, ut mattis ligula pretium. Curabitur facilisis nec elit nec ultrices. Phasellus blandit pretium nunc, egestas faucibus nibh congue ac. Donec vestibulum, velit eget tempor ornare, mauris nulla fringilla risus, sed commodo eros purus eu ex. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Nulla aliquam gravida egestas. Suspendisse iaculis fermentum nibh, in commodo lorem. Aliquam consequat neque nec mauris tincidunt convallis. Maecenas est urna, eleifend sit amet mollis ac, imperdiet ut quam. Donec vel turpis nec quam egestas commodo eget sit amet magna. Mauris consequat rutrum massa, ac semper leo lobortis id.

At the 2024 Oscar's, the film Oppenheim won several prizes, including:

JAWS 2023 + Edge

BUILT-IN SEMANTICS

`<dialog>`

`aria-modal`

(if modal; only in Chromium)

BUILT-IN SEMANTICS

`<dialog>`

`aria-modal`
(if modal; only in Chromium)

`popover`

`aria-expanded`
+ `group role`
+ sometimes `aria-details`

IN PRACTICE

Gotcha 1: layering



MijnOverheid

H.A. de Vries

[Uitloggen](#)

- Home
- Berichtenbox
- Lopende zaken
- Identiteit
- Financiën
- Werk
- Gezondheid**
- Wonen
- Vervoer

Wilt u uw sessie verlengen?

Uw sessie is mogelijk verlopen. Als u te lang niks hebt gedaan, wordt u uit veiligheidsoverwegingen uitgelogd.

Kies "Ja" om uw sessie te verlengen, mogelijk moet u dan opnieuw inloggen.

[Uitloggen](#)

[Ja, verlengen](#)

n na uw overlijden wel of niet

[Ga naar Donorregister](#)

Mijn PGB



MijnOverheid

H.A. de Vries

[Uitloggen](#)

- Home
- Berichtenbox
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Kies "Ja" om uw sessie te verlengen, mogelijk moet u dan opnieuw inloggen.

[Uitloggen](#)

top layer, top layer, top layer, top layer, top layer

n na uw overlijden wel of niet

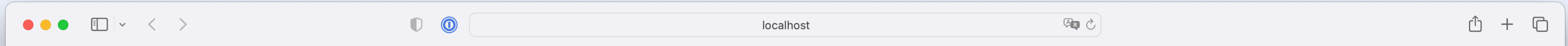
[Ga naar Donorregister](#)

Mijn PGB

If you add popover to your design system / website, also turn your modal dialogs into `<dialog>`s w/`showModal()`

Gotcha 2: positioning

log.hidde.blog



(Work in progress) [Home](#)



Froukje in Zwolle
★★★★
on 2023-05-05 at Park de Wezenlanden •
Bevrijdingsfestival in Zwolle



Spinvis in Woerden
★★★★★
on 2023-04-15 at Het Klooster



EELS in Amsterdam
★★★★★
on 2023-04-07 at AFAS Live



Sef & het El Salvador Ensemble in Rotterdam
★★★★★
on 2023-03-10 at Lantaren Venster



Roosbeef in Groningen
★★★★★
on 2023-03-05 at Vera



Pink Floyd Project in Leeuwarden
UNRATED
on 2022-12-17 at Neushoorn



Oscar Jerome in Rotterdam
★★★★
on 2022-12-07 at BIRD



The Bad Plus in Rotterdam
★★★★
on 2022-11-13 at Lantaren Venster



Gurdjieff Ensemble in Amsterdam
★★★
on 2022-11-04 at Muziekgebouw aan 't IJ



Robert Glasper in Antwerp
★★★
on 2022-08-29 at De Roma



Kassa Overall in Rotterdam
★★★★★



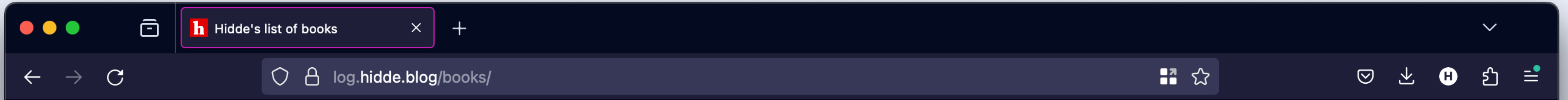
Gregory Porter in Rotterdam
★★★
on 2022-07-08 at Ahoy • North Sea Jazz 2022



Gary Bartz & Maisha in Rotterdam
★★★★
on 2022-07-08 at Ahoy • North Sea Jazz 2022 in Rotterdam



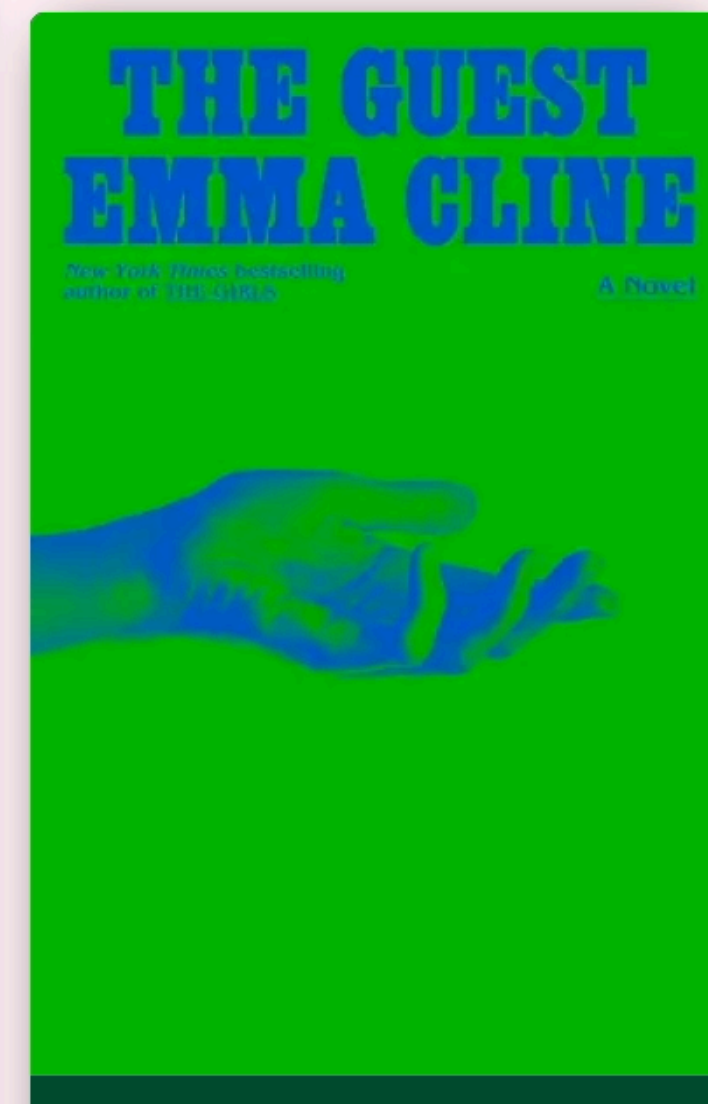
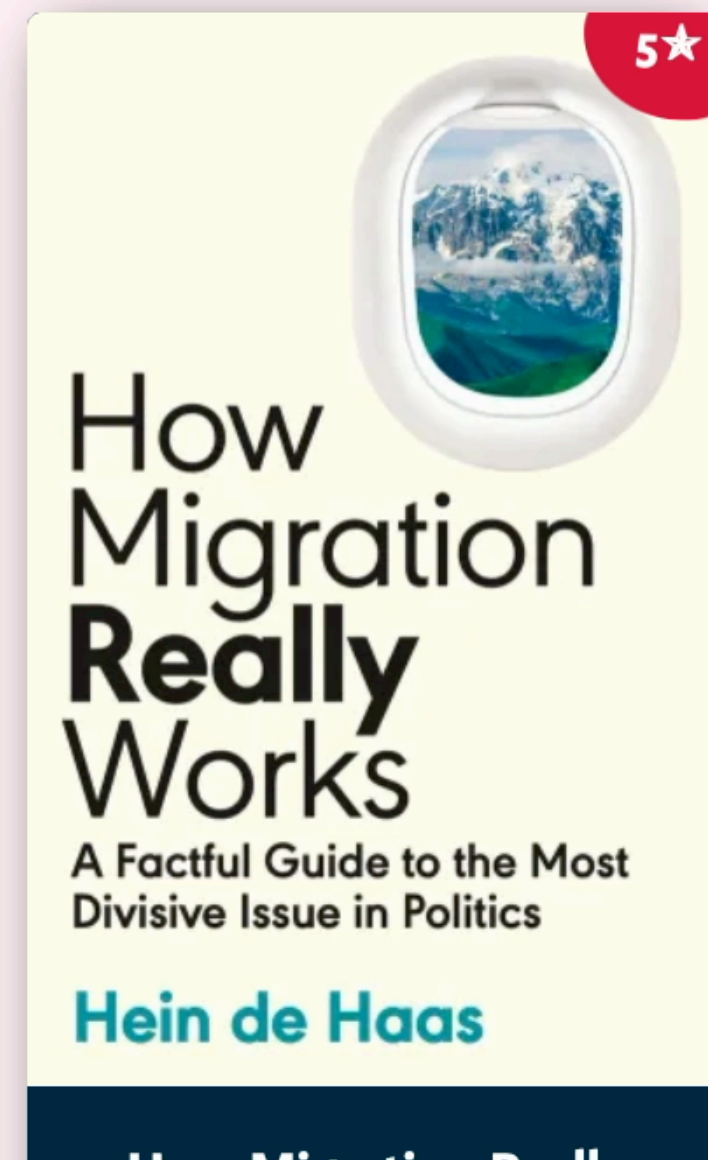
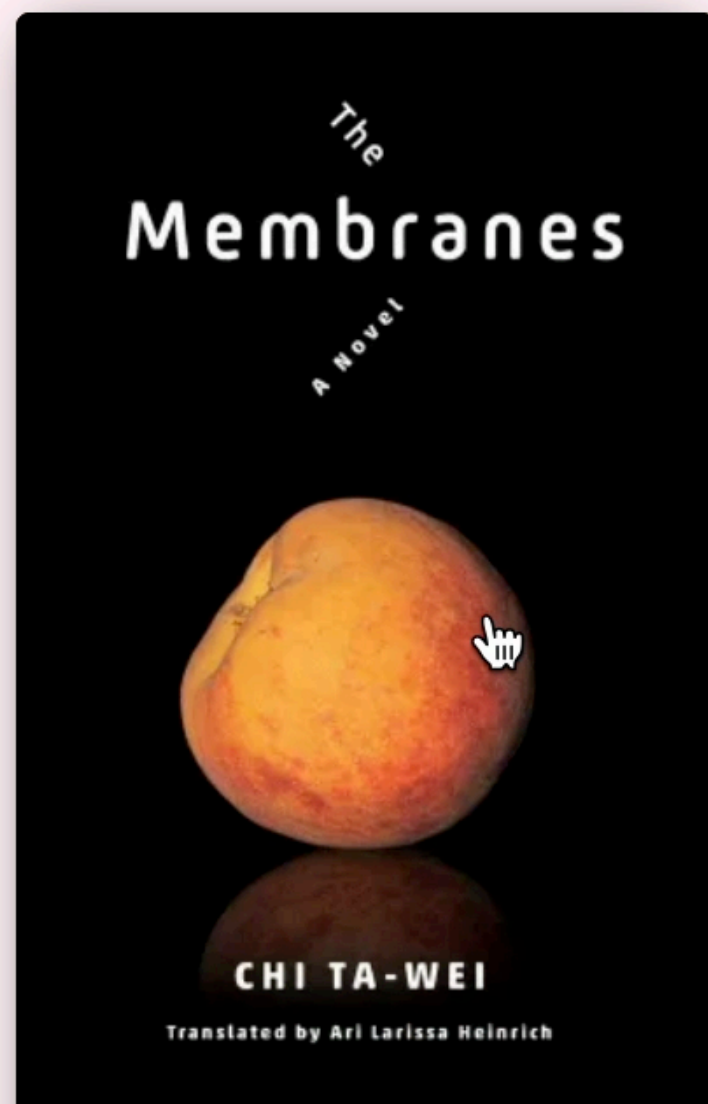
Lianne in Rotterdam



BOOKS

[2024](#) · [2023](#) · [2022](#) · [2021](#) · [2020](#) · [2019](#) · [2018](#) · [2017](#)

2024



`<dialog>` `popover`
with `showModal()`

Both are *centered*
by default



(Work in progress) [Home](#)

Froukje in Zwolle
★★★★★
on 2023-05-05 at Park de Wezenlanden •
Bevrijdingsfestival in Zwolle

Spinvis in Woerden
★★★★★
on 2023-04-15 at Het Klooster

EELS in Amsterdam
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on 2023-04-07 at AFAS Live

Sef & het El Salvador Ensemble in Rotterdam
★★★★★
on 2023-03-10 at Lantaren Venster

Roosheef in Groningen
★★★★★

Pink Floyd Project in Leeuwarden
UNRATED
on 2022-12-17 at Neushoorn

```
// concert-list.njk
<ol>
  {% for concert in concerts %}
  <li>
    ...
  </li>
  {% endfor %}
</ol>
```



(Work in progress) [Home](#)

Froukje in Zwolle
★★★★

on 2023-05-05 at Park de Wezenlanden •
Bevrijdingsfestival in Zwolle

Spinvis in Woerden
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Roosbeef in Groningen
★★★★

Pink Floyd Project in Leeuwarden
UNRATED

on 2022-12-17 at Neushoorn

```
// concert-list.njk
```

```
<ol>
```

```
  {% for concert in concerts %}
```

```
  <li>
```

```
    ...
```

```
    {% if concert.images %}
```

```
    <button
```

```
      type="button"
```

```
      data-dialogtarget="{{ dialogID }}"
```

```
      aria-label="Details for {{ concert.info }}"
```

```
      <svg aria-hidden="true" focusable="false">...</svg>
```

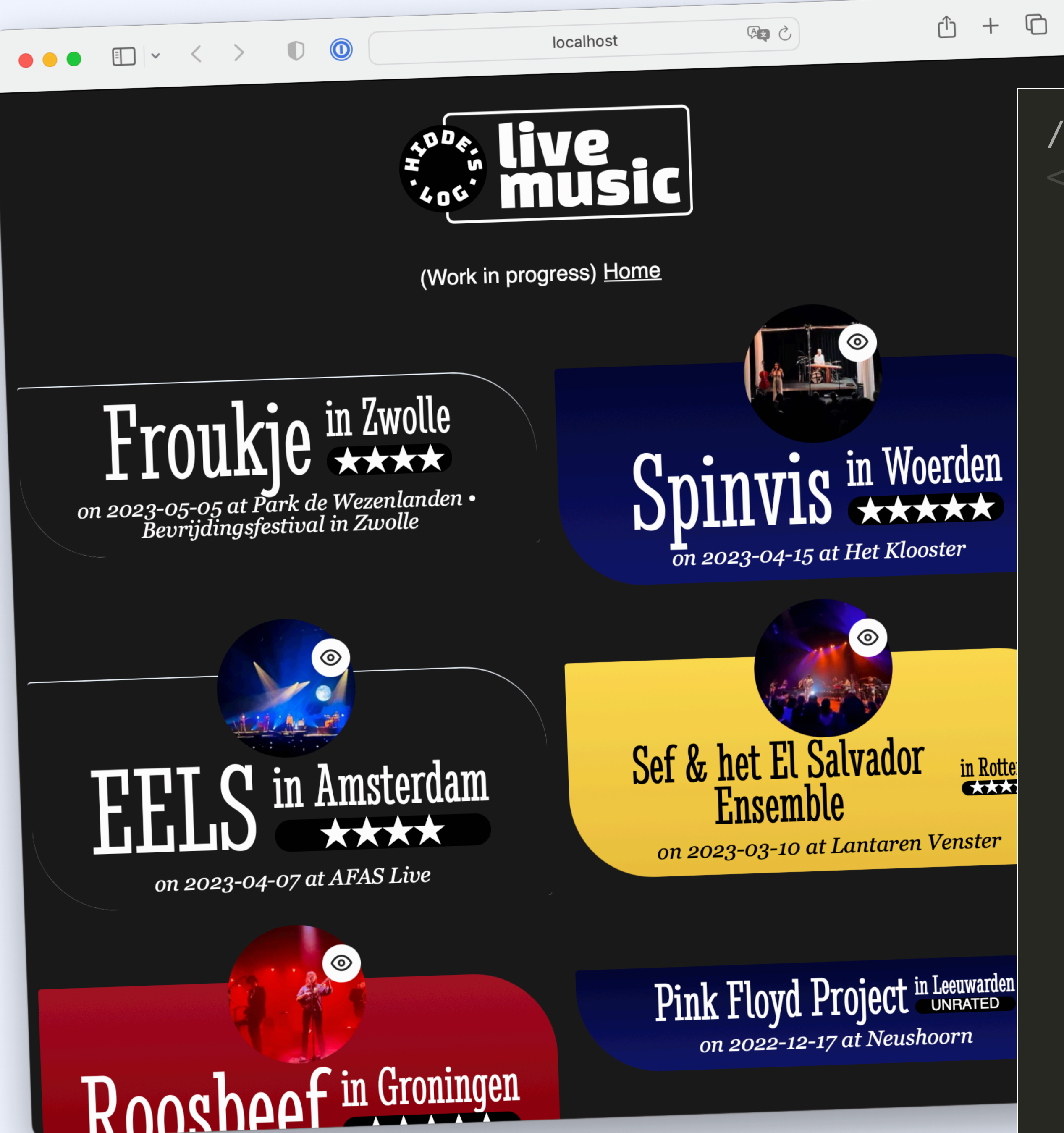
```
    </button>
```

```
    {% endif %}
```

```
  </li>
```

```
  {% endfor %}
```

```
</ol>
```

```
// concert-list.njk
<ol>
  {% for concert in concerts %}
  <li>
    ...
    {% if concert.images %}
    <button
      type="button"
      data-dialogtarget="{{ dialogID }}"
      aria-label="Details for {{ concert.info }}"
      <svg aria-hidden="true" focusable="false">...</svg>
    </button>
    <dialog id="{{ dialogID }}"
      aria-label="Details for {{ concert.info }}">
      <button
        type="button"
        data-dialogclose="{{ dialogID }}"
        aria-label="Close">
          <svg aria-hidden="true" focusable="false">..
        </button>
      ...
    </dialog>
    {% endif %}
  </li>
  {% endfor %}
</ol>
```



(Work in progress) [Home](#)

Froukje in Zwolle
★★★★

on 2023-05-05 at Park de Wezenlanden •
Bevrijdingsfestival in Zwolle



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★★★★

on 2023-04-07 at AFAS Live



Sef & het El Salvador Ensemble in Rotterdam
★★★★

on 2023-03-10 at Lantaren Venster



Roosbeef in Groningen
★★★★

Pink Floyd Project in Leeuwarden
UNRATED

on 2022-12-17 at Neushoorn

```
// concert-list.js  
const dialogOpeners =  
  document.querySelectorAll('[data-dialogtarget]');
```



(Work in progress) [Home](#)

Froukje in Zwolle
★★★★★
on 2023-05-05 at Park de Wezenlanden •
Bevrijdingsfestival in Zwolle

Spinvis in Woerden
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★★★★★
on 2023-04-07 at AFAS Live

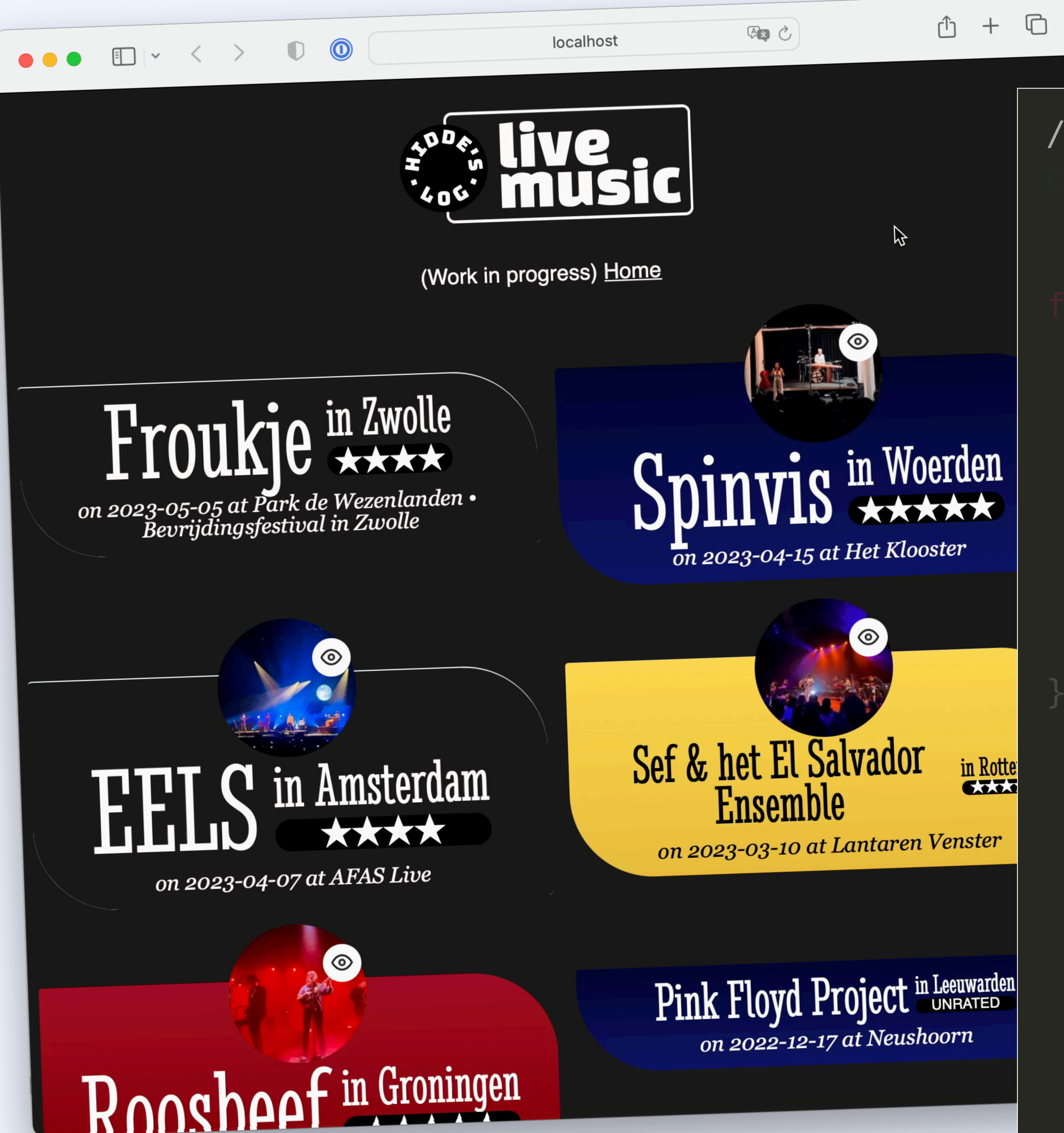
Sef & het El Salvador Ensemble in Rotterdam
★★★★★
on 2023-03-10 at Lantaren Venster

Roosbeef in Groningen
★★★★★

Pink Floyd Project in Leeuwarden
UNRATED
on 2022-12-17 at Neushoorn

```
// concert-list.js
const dialogOpeners =
  document.querySelectorAll('[data-dialogtarget]');

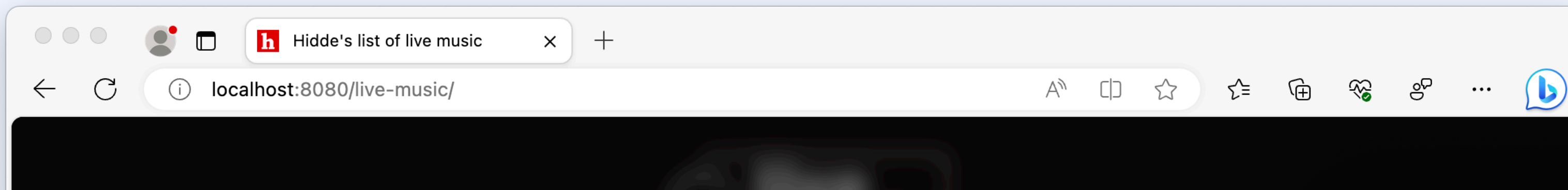
for (let i = 0; i < dialogOpeners.length; i++) {
  const opener = dialogOpeners[i];
  const correspondingDialog =
    document.querySelector(
      `#${opener.getAttribute('data-dialogtarget')}`);
}
```



```
// concert-list.js
const dialogOpeners =
  document.querySelectorAll('[data-dialogtarget]');

for (let i = 0; i < dialogOpeners.length; i++) {
  const opener = dialogOpeners[i];
  const correspondingDialog =
    document.querySelector(
      `#${opener.getAttribute('data-dialogtarget')}`);

  opener.addEventListener('click', function() {
    correspondingDialog.showModal();
  });
}
```



ROBERT GLASPER IN MENLO PARK



DevTools - localhost:8080/live-music/

Welcome </> Elements

```
......</img>...<strong class="concert-list__concert longname ">...</strong> flex<br><span class="concert-list__concert-meta2">on 2022-02-25 at The Guild Theatre</span><br><button class="concert-list__dialog-opener" data-dialogtarget="dialog-2022-02-25-1410" aria-label="Open" type="button">...</button><br><dialog id="dialog-2022-02-25-1410" style="padding: 0;" open> top-layer (1) == $0<br>  <div style="padding: 1em;"><br>    <button type="button" data-dialogclose="dialog-2022-02-25-1410" aria-label="Close">...</button><br>    <h1> Robert Glasper in Menlo Park </h1><br>     al piano and talking into a microphone, his MC, a bass player and a drummer" lazyload="true" data-bbox="100 280 518 702"/><br>  </div><br>  ::backdrop<br></dialog><br></li><br><li class="concert-list__item">...</li> flex<br><li class="concert-list__item">...</li> flex<br>html body ol.concert-list li.concert-list__item dialog#dialog-2022-02-25-1410</pre>

Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility



Filter :hov .cls +

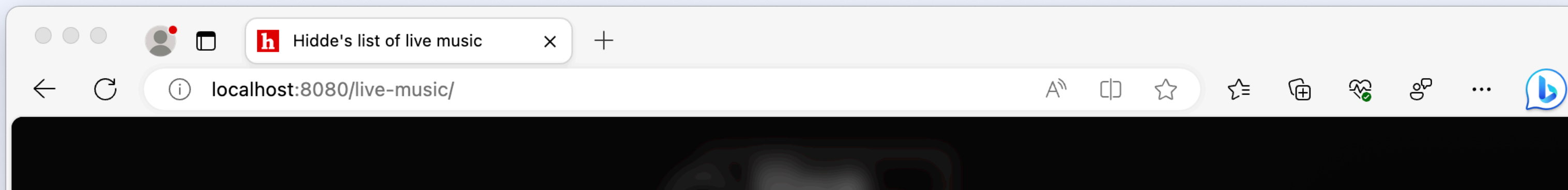


```
dialog:modal {
 position: fixed;
 inset-block-start: 0px;
 inset-block-end: 0px;
 max-width: calc((100% - 6px) - 2em);
 max-height: calc((100% - 6px) - 2em);
 user-select: text;
 visibility: visible;
 overlay: auto !important;
 overflow: auto;
}

dialog[open] {
 display: block;
}

dialog {
 display: none;
}
```


```



ROBERT GLASPER IN MENLO PARK



DevTools - localhost:8080/live-music/

Welcome </> Elements

```
......</img>...<strong class="concert-list__concert longname">...</strong> flex<br><span class="concert-list__concert-meta2">on 2022-02-25 at The Guild Theatre</span><br><button class="concert-list__dialog-opener" data-dialogtarget="dialog-2022-02-25-1410" aria-label="Open dialog" type="button">...</button><br><dialog id="dialog-2022-02-25-1410" style="padding: 0;" open> top-layer (1) == $0<br>  <div style="padding: 1em;"><br>    <button type="button" data-dialogtarget="dialog-2022-02-25-1410" aria-label="Close dialog" type="button">...</button><br>    <h1> Robert<br>     al piano ar<br>  </div><br>  ::backdrop<br></dialog><br></li><br><li class="concert-list__item">...</li> flex</pre>

html body ol.concert-list li.concert-list__item dialog#dialog-2022-02-25-1410



Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility



Filter :hov .cls +

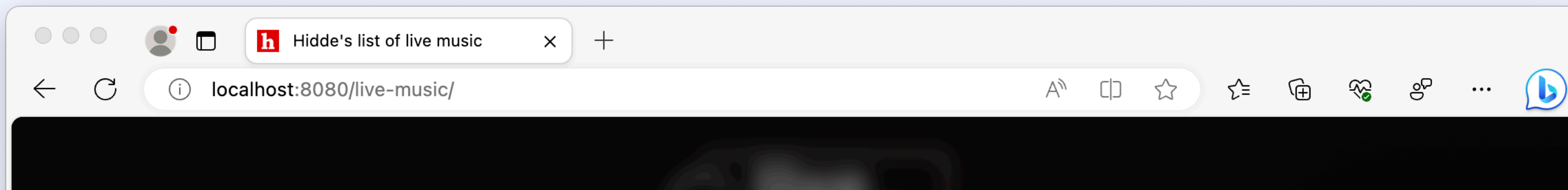


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dialog:modal {
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 display: none;
}
```


```

ROBERT GLASPER IN MENLO PARK



DevTools - localhost:8080/live-music/

Elements

```
<strong class="concert-list__concert longname ">...</strong> flex
  <span class="concert-list__concert-meta2">on 2022-02-25 at The Guild Theatre</span>
  <button class="concert-list__dialog-opener" data-dialogtarget="dialog-2022-02-25-1410">
  <dialog id="dialog-2022-02-25-1410" style="padding: 0;" open> top-layer (1)
    <div style="padding: 1em;">
      <button type="button" data-dialogclose="dialog-2022-02-25-1410" aria-label="Close">
      <h1> Robert Glasper in Menlo Park </h1>
      
    </dialog>
  </li>
<li class="concert-list__item">...</li> flex
```

html body ol.concert-list li.concert-list__item dialog#dialog-2022-02-25-1410 ::backdrop

Styles Computed Layout Event Listeners DOM Breakpoints Properties

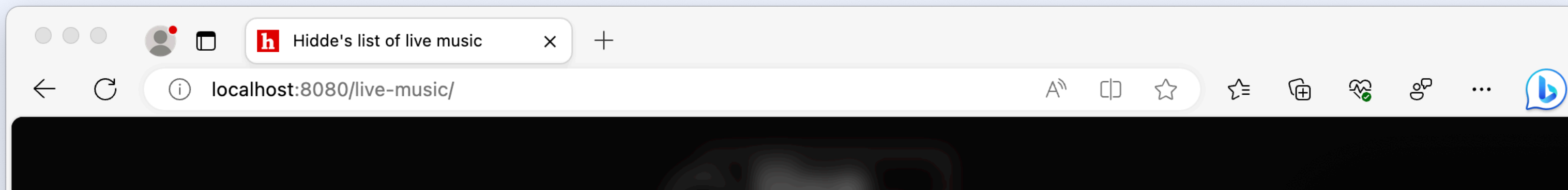
Accessibility

Filter :hov .cls + [[(index):52

```
dialog::backdrop {
  background: ▶ rgba(0,0,0,0.6);
  backdrop-filter: blur(.5em);
  overflow: ▶ hidden;
}
```

dialog::backdrop { user agent stylesheet

```
position: fixed;
overlay: auto !important;
inset: ▶ 0px;
background: ▶ rgba(0, 0, 0, 0.1);
```

ROBERT GLASPER IN MENLO PARK




```
DevTools - localhost:8080/live-music/
</> Elements
<strong class="concert-list__concert longname ">...</strong> flex
  <span class="concert-list__concert-meta2">on 2022-02-25 at The Guild Theatre</span>
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      <h1> Robert Glasper in Menlo Park </h1>
      
    </div>
```

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dialog::backdrop {
  background: ▶ rgba(0,0,0,0.6);
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```

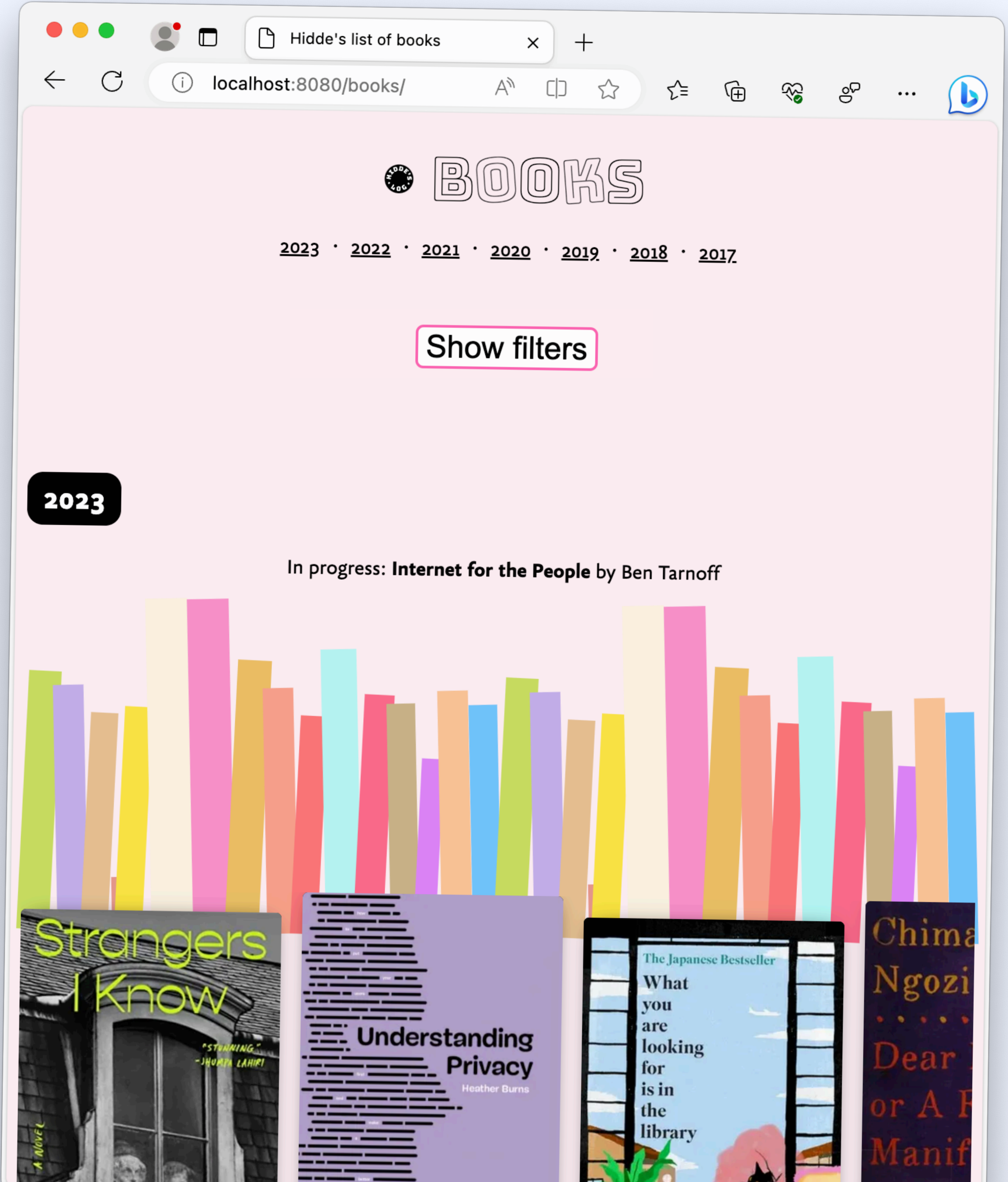
```
dialog::backdrop {
  background: ▶ rgba(0,0,0,0.6);
  backdrop-filter: blur(.5em);
  overflow: ▶ hidden;
}
```

```
dialog::backdrop {
  position: fixed;
  overlay: auto !important;
  inset: ▶ 0px;
  background: ▶ rgba(0,0,0,0.1);
}
```

`<dialog>`  `showModal()` `popover`

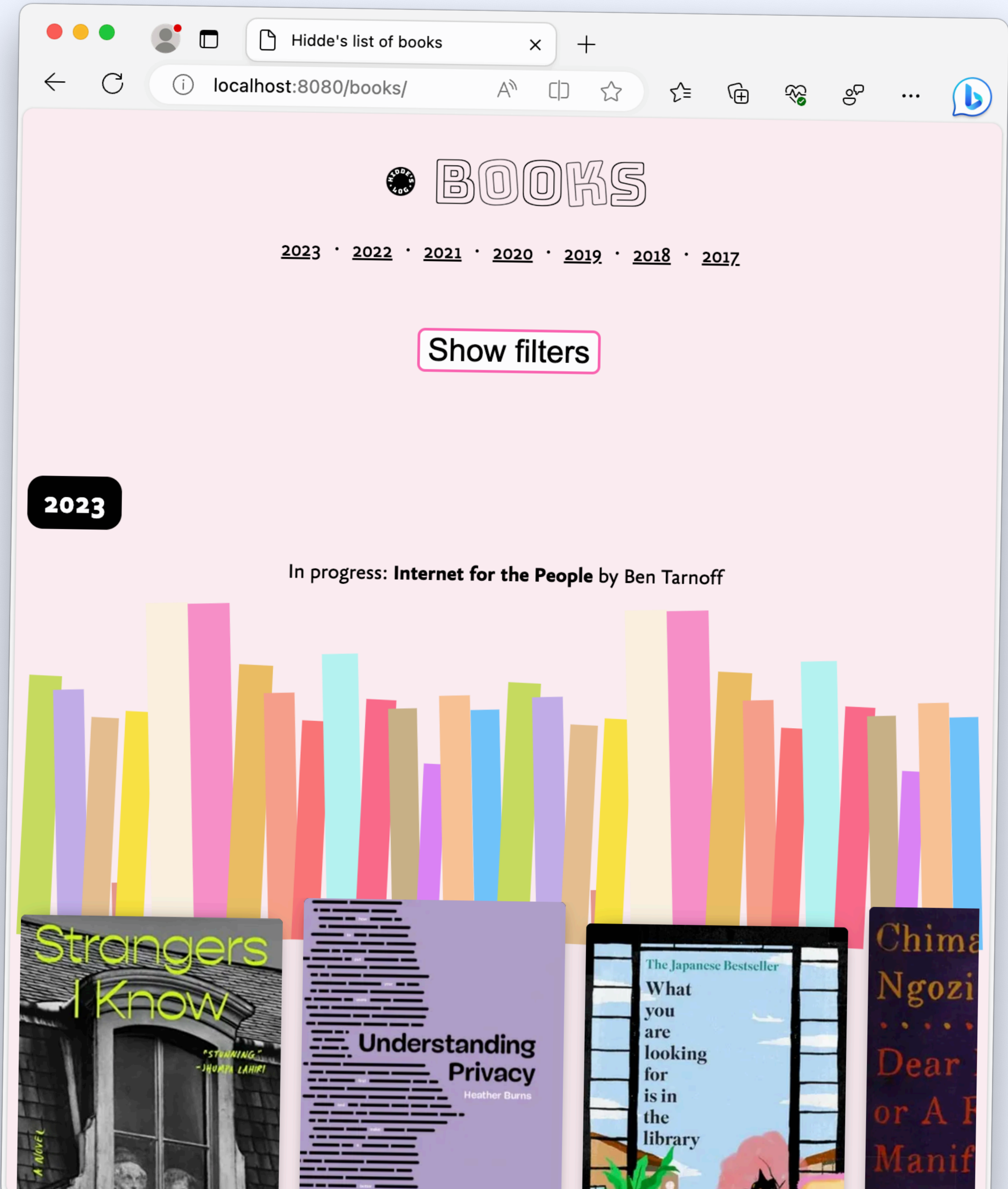
Both are *centered*
by default

```
// book-list.njk
...
<button type="button" popovertarget="filters">
  Toggle filters
</button>
...
```



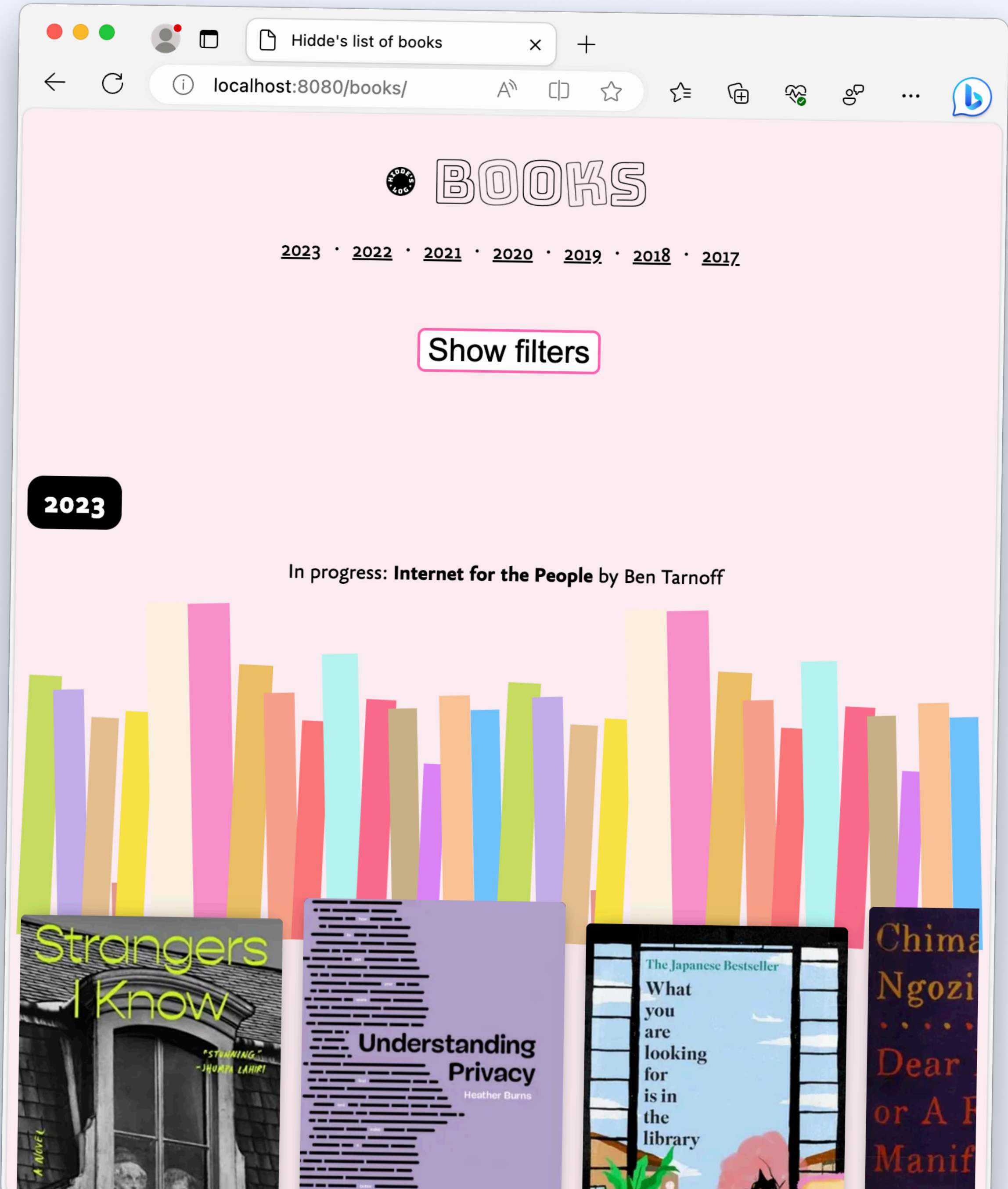
```
// book-list.njk
...
<button type="button" popovertarget="filters">
  Toggle filters
</button>

<div popover role="menu" id="filters">
  <button type="button">
    Show only Dutch authors
  </button>
  <button type="button">
    Show only books with blue covers
  </button>
  <button type="button">
    Show only books rated > 3 stars
  </button>
</div>
...
```



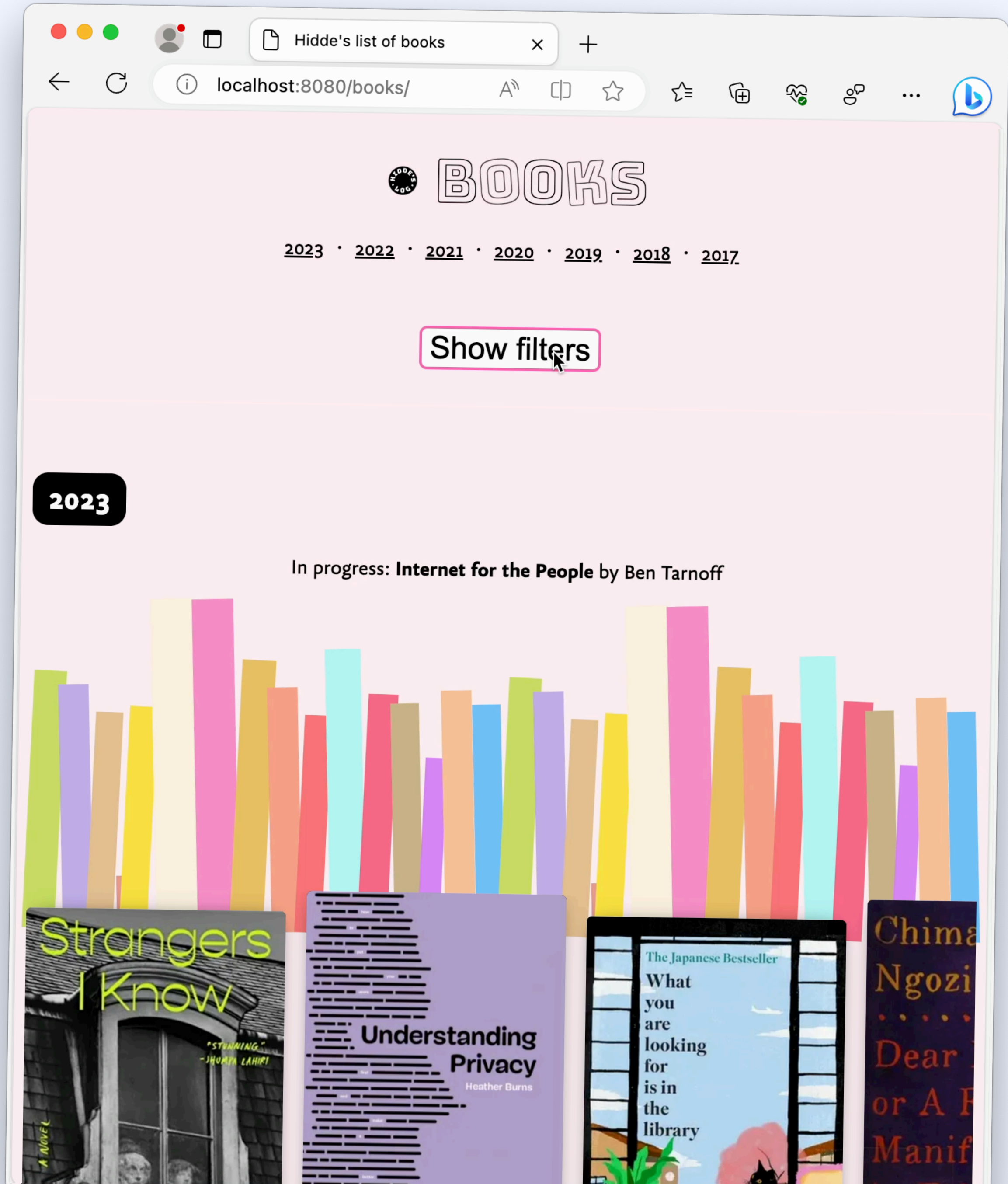
```
// book-list.njk
...
<button type="button" popovertarget="filters">
  Show filters
</button>

<div popover role="menu" id="filters">
  <button type="button" role="menuitem"
    autofocus>
    Show only Dutch authors
  </button>
  <button type="button" role="menuitem"
    tabindex="-1">
    Show only books with blue covers
  </button>
  <button type="button" role="menuitem"
    tabindex="-1">
    Show only books rated > 3 stars
  </button>
</div>
...
```



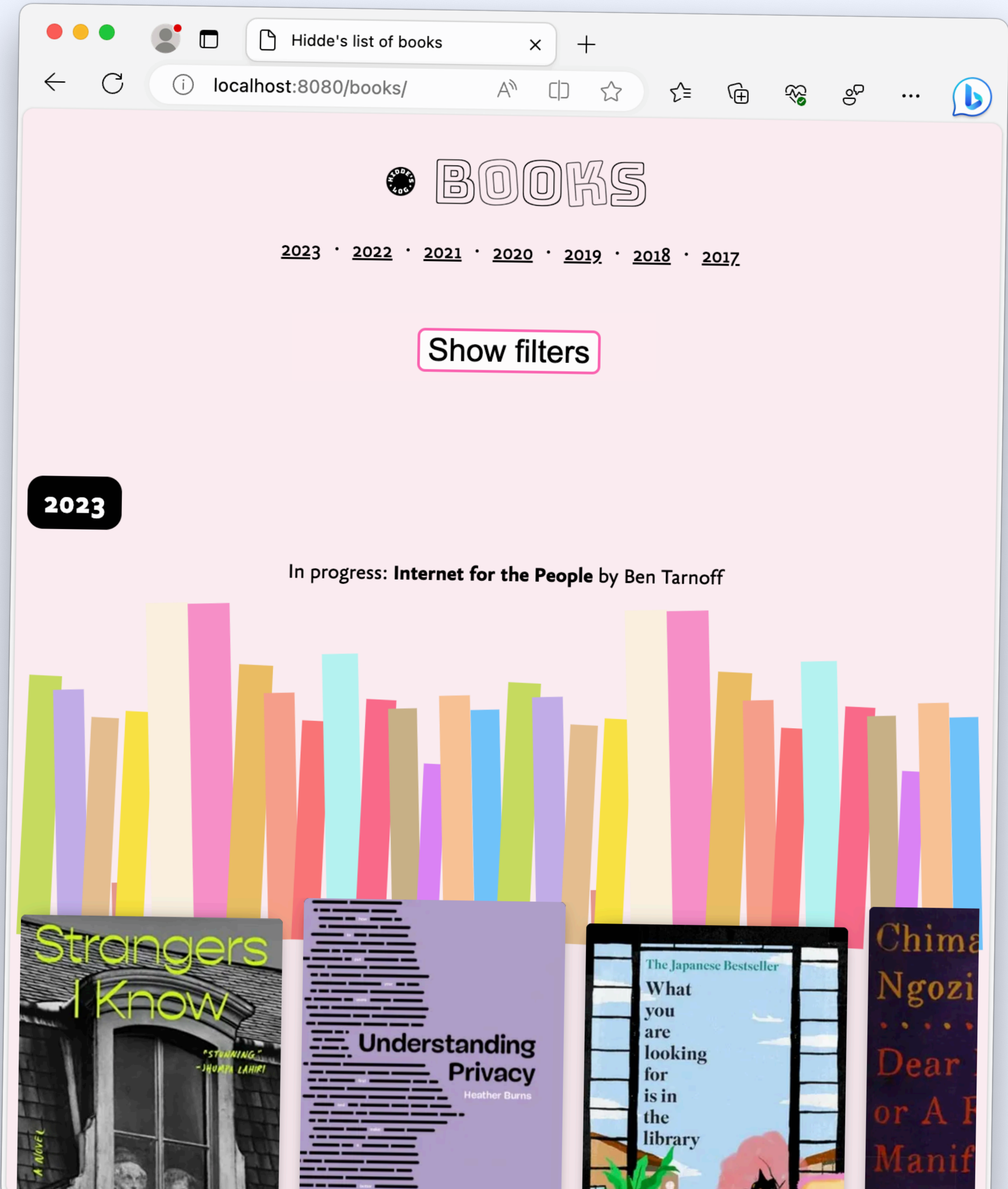
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```



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  </button>
  <button type="button" role="menuitem"
    tabindex="-1">
    Show only books rated > 3 stars
  </button>
</div>
...
```



```
Elements
  <style> ... </style>
  <button type="button" popovertarget="filters"> Show filters </button>
  <div popover role="menu" id="filters"> ... </div>
  </div>

html body div div#filters

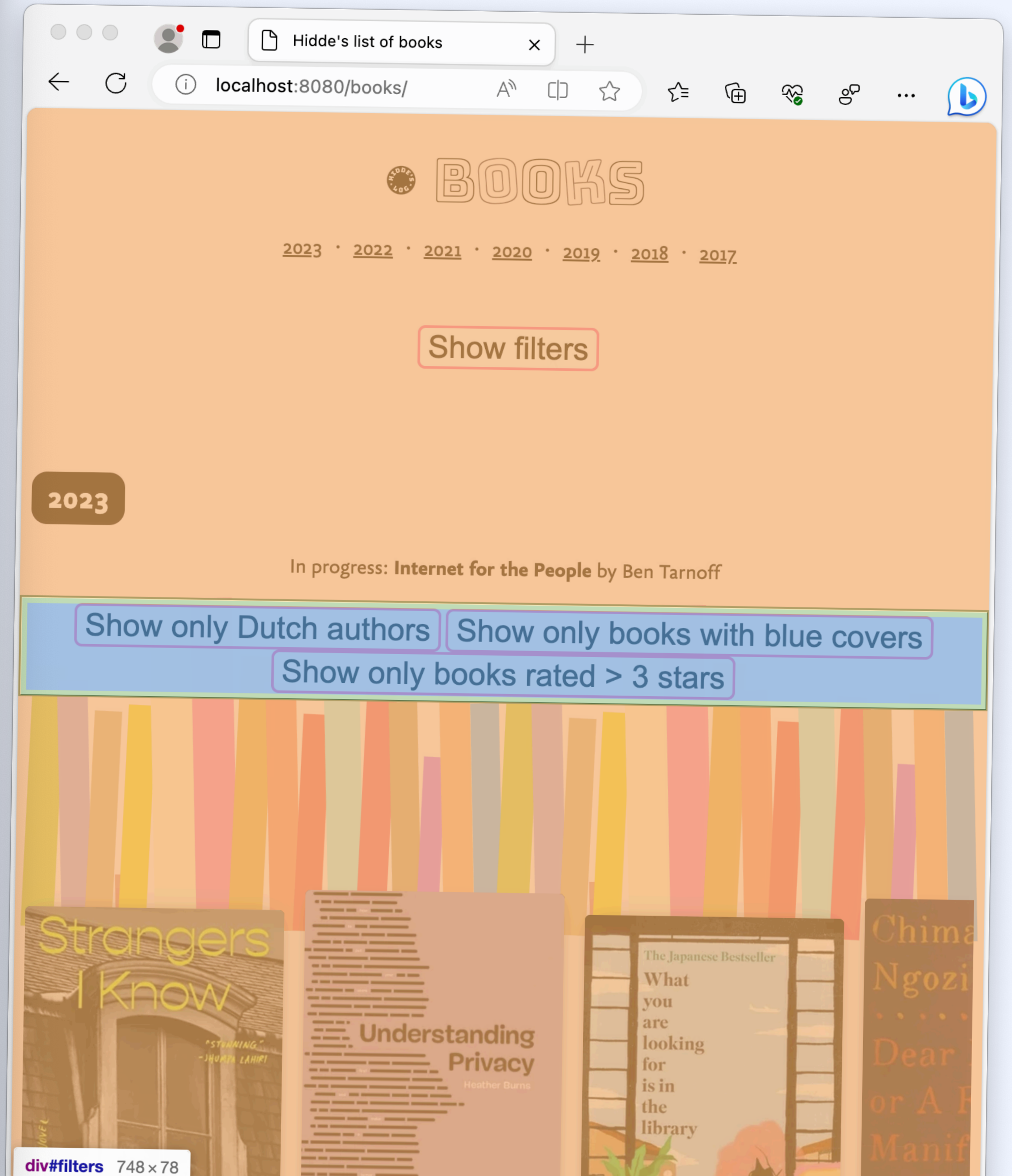
Styles Computed Layout Event Listeners DOM Breakpoints
Filter :hov .cls



element.style {
}

[popover]:popover-open:not(dialog) {
  overlay: auto !important;
}

[popover] {
  position: fixed;
  width: fit-content;
  height: fit-content;
  color: canvastext;
  background-color: canvas;
  inset: 0px;
  margin: auto;
  border-width: initial;
  border-style: solid;
  border-color: initial;
  border-image: initial;
  padding: 0.25em;
  overflow: auto;
}
```

@hdv@front-end.social



`<dialog>`  `showModal()` `popover` 

Both are *centered*
by default

POPOVER POSITIONING

Option 1: calculate (yourself or with a library)

```
// book-list.njk
...
<script type="module">
  import { computePosition } from 'https://cdn.jsdelivr.net/npm/@floating-ui/dom@1.2.9/+esm';
</script>
...
```

POPOVER POSITIONING

Option 1: calculate (yourself or with a library)

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...
<script type="module">
  import { computePosition } from 'https://cdn.jsdelivr.net/npm/@floating-ui/dom@1.2.9/+esm';

  const popover = document.querySelector('[popover]');

</script>
...
```

POPOVER POSITIONING

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```
// book-list.njk
...
<script type="module">
  import { computePosition } from 'https://cdn.jsdelivr.net/npm/@floating-ui/dom@1.2.9/+esm';

  const popover = document.querySelector('[popover]');

  popover.addEventListener('toggle', function(e) {

  });
</script>
...
```

POPOVER POSITIONING

Option 1: calculate (yourself or with a library)

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...
<script type="module">
  import { computePosition } from 'https://cdn.jsdelivr.net/npm/@floating-ui/dom@1.2.9/+esm';

  const popover = document.querySelector('[popover]');

  popover.addEventListener('toggle', function(e) {
    const invoker = document.querySelector(`[popovertarget="${popover.getAttribute('id')}"]`);

  });
</script>
...

```

POPOVER POSITIONING

Option 1: calculate (yourself or with a library)

```
// book-list.njk
...
<script type="module">
  import { computePosition } from 'https://cdn.jsdelivr.net/npm/@floating-ui/dom@1.2.9/+esm';

  const popover = document.querySelector('[popover]');

  popover.addEventListener('toggle', function(e) {
    const invoker = document.querySelector(`[popovertarget="${popover.getAttribute('id')}"]`);

    if (e.newState === 'open') {

    }
  });
</script>
...
```

POPOVER POSITIONING

Option 1: calculate (yourself or with a library)

```
// book-list.njk
...
<script type="module">
  import { computePosition } from 'https://cdn.jsdelivr.net/npm/@floating-ui/dom@1.2.9/+esm';

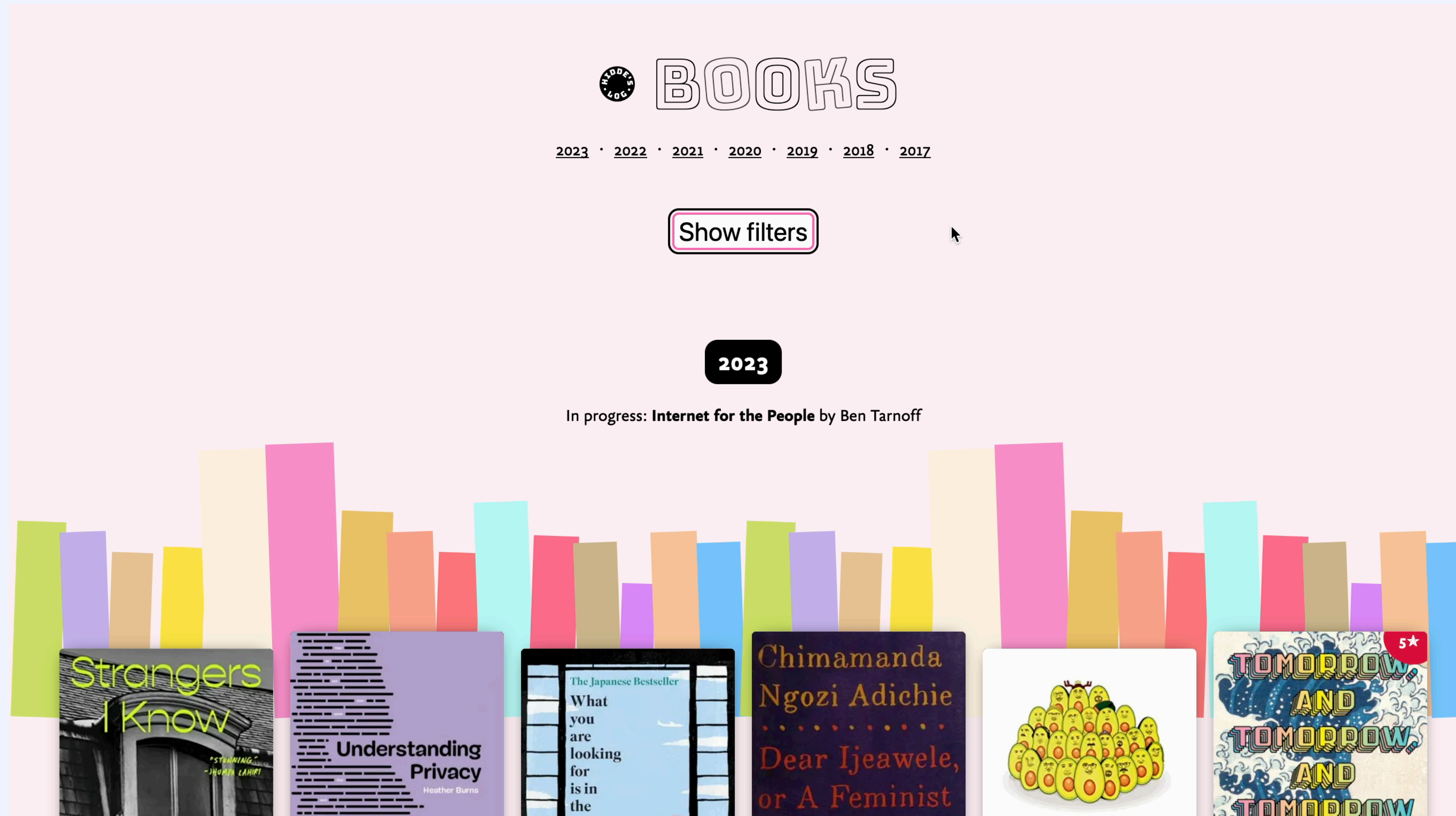
  const popover = document.querySelector('[popover]');

  popover.addEventListener('toggle', function(e) {
    const invoker = document.querySelector(`[popovertarget="${popover.getAttribute('id')}"]`);

    if (e.newState === 'open') {
      computePosition(invoker, popover).then(({x, y}) => {
        Object.assign(popover.style, {
          left: `${x}px`,
          top: `${y}px`,
        });
      });
    }
  });
</script>
```

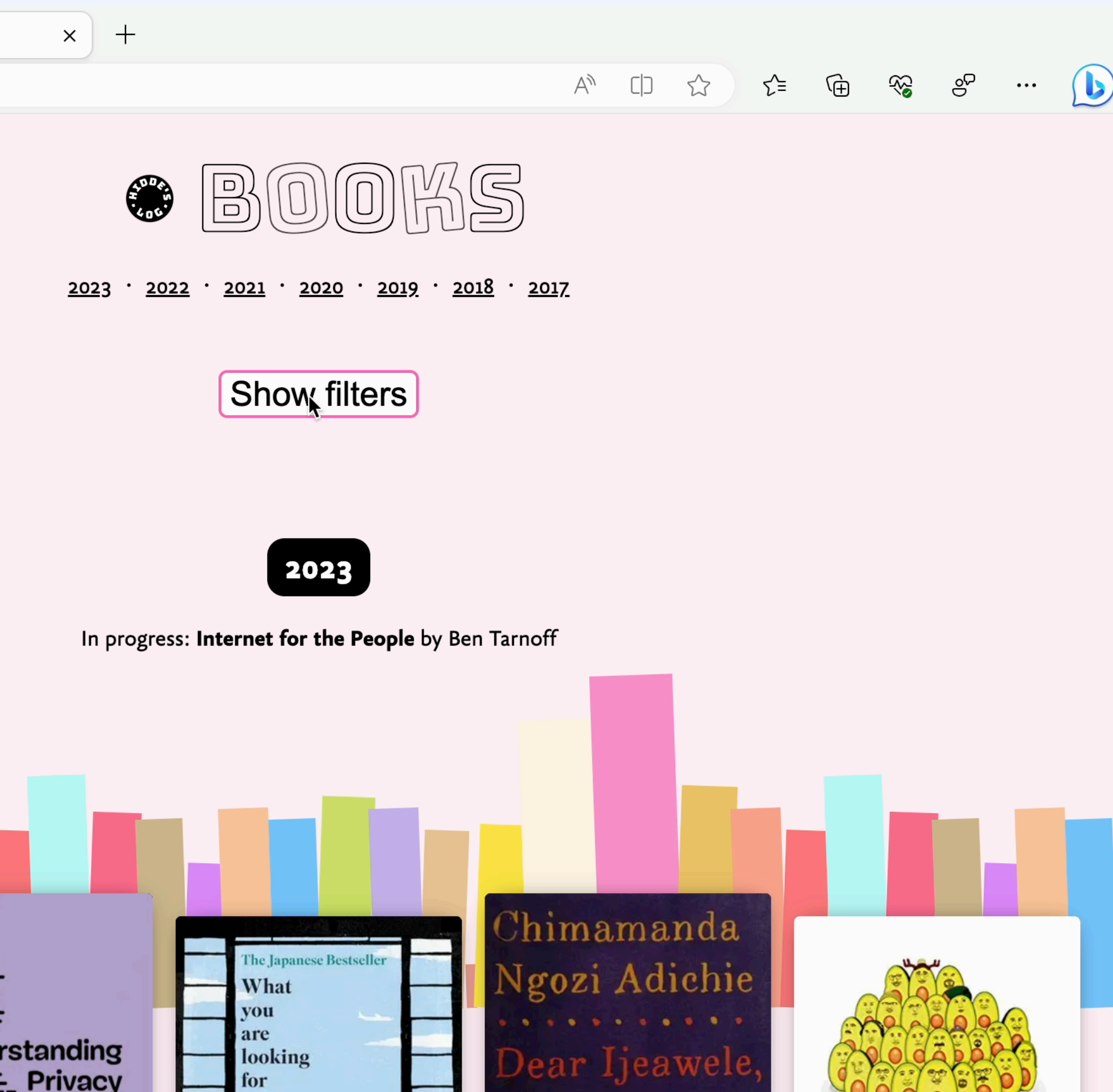
POPOVER POSITIONING

Option 1: calculate (yourself or with a library)



POPOVER POSITIONING

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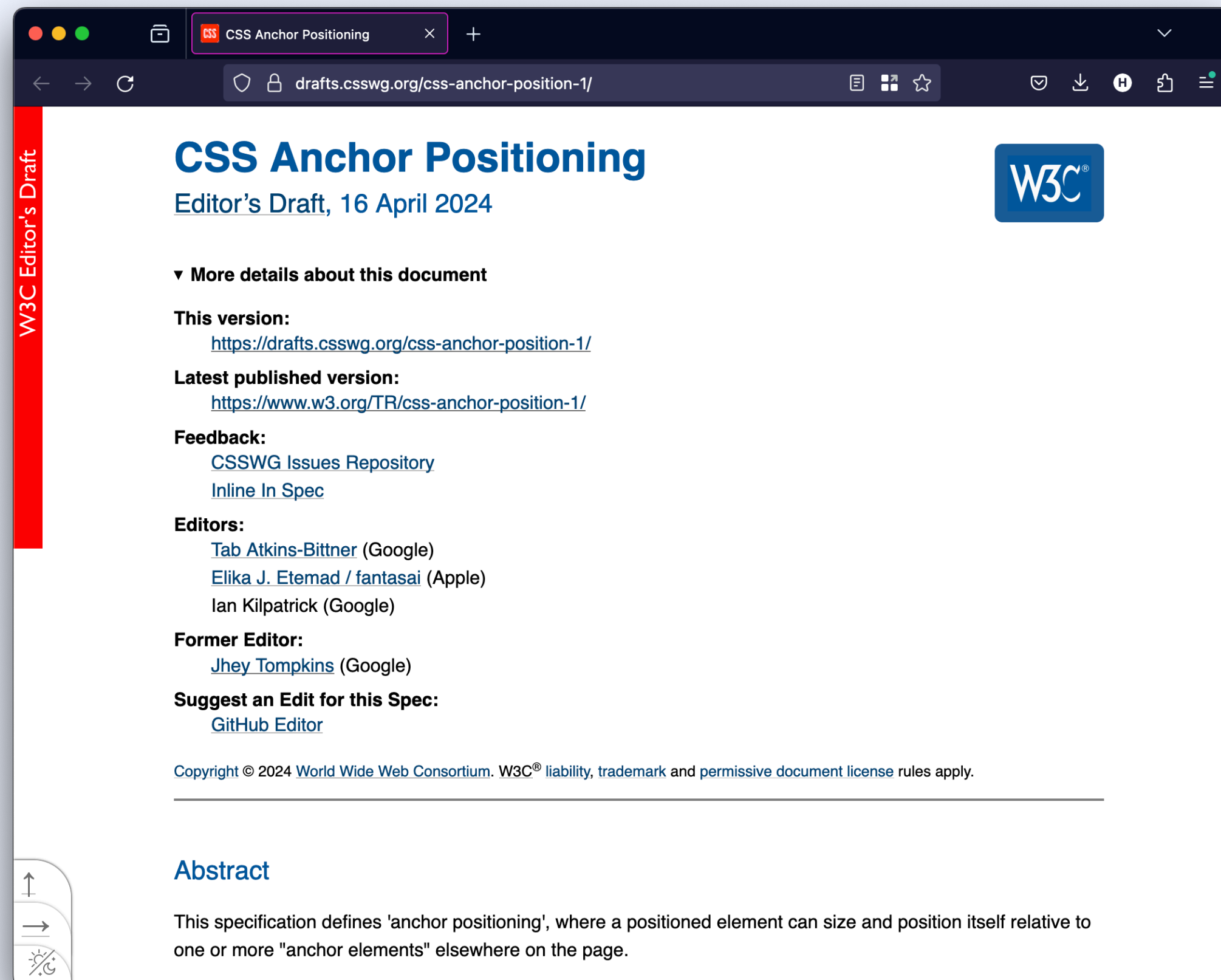


```
DevTools - localhost:8080/books/
Elements
<div popover role="menu" id="filters" style
  <button type="button">Show only Dutch auth
  <button type="button">Show only books with
  <button type="button">Show only books rate
html body div div#filters
Styles Computed Layout Event Listeners
Filter :hov .cls
[popover] {
  position: fixed;
  width: fit-content;
  height: fit-content;
  color: canvastext;
  background-color: canvas;
  inset: 0px;
  margin: auto;
  border-width: initial;
  border-style: solid;
  border-color: initial;
  border-image: initial;
  padding: 0.25em;
  overflow: auto;
}
div {
  user agent styl
```

I did have to override the UA default for the popover's **margin** and **position**

POPOVER POSITIONING

Option 2: anchor positioning



drafts.csswg.org/css-anchor-position-1

kizu.dev/anchor-positioning-experiments/

The screenshot displays a web browser window with the following elements:

- Browser Tab:** Anchor Positioning API - a Coll x
- Address Bar:** https://codepen.io/collection/ExkRWw?grid_type=grid
- Navigation:** Your Work, Following, Trending, Search CodePen...
- Profile Header:** Anchor Positioning API, Una Kravets PRO, + Follow
- View Controls:** GRID (selected), LIST, SORT BY Order, TV View
- Content Area:**
 - YOUR ACCOUNT:** A large white placeholder box.
 - Radial menu everywhere:** A demo showing three images of hands with colorful nail art. Below it, the title "Radial menu everywhere" by Una Kravets PRO is visible, along with 4 likes, 0 comments, and 210 views.
 - Anchored Submenu:** A demo titled "Anchored Submenu" by Una Kravets PRO.
 - Wikipedia-style t:** A demo titled "Wikipedia-style t" by Una Kravets PRO.

WRAPPING UP

<dialog>

What does each do

Accessibility semantics

In practice

popover

New attribute / API in HTML, v1 supported in Chrome stable, coming to other browsers too

<dialog> and popover can reduce
your JS bundle

<dialog> and popover can reduce
your JS bundle

The popover attribute adds
behaviour, not roles

<dialog> and popover can reduce
your JS bundle

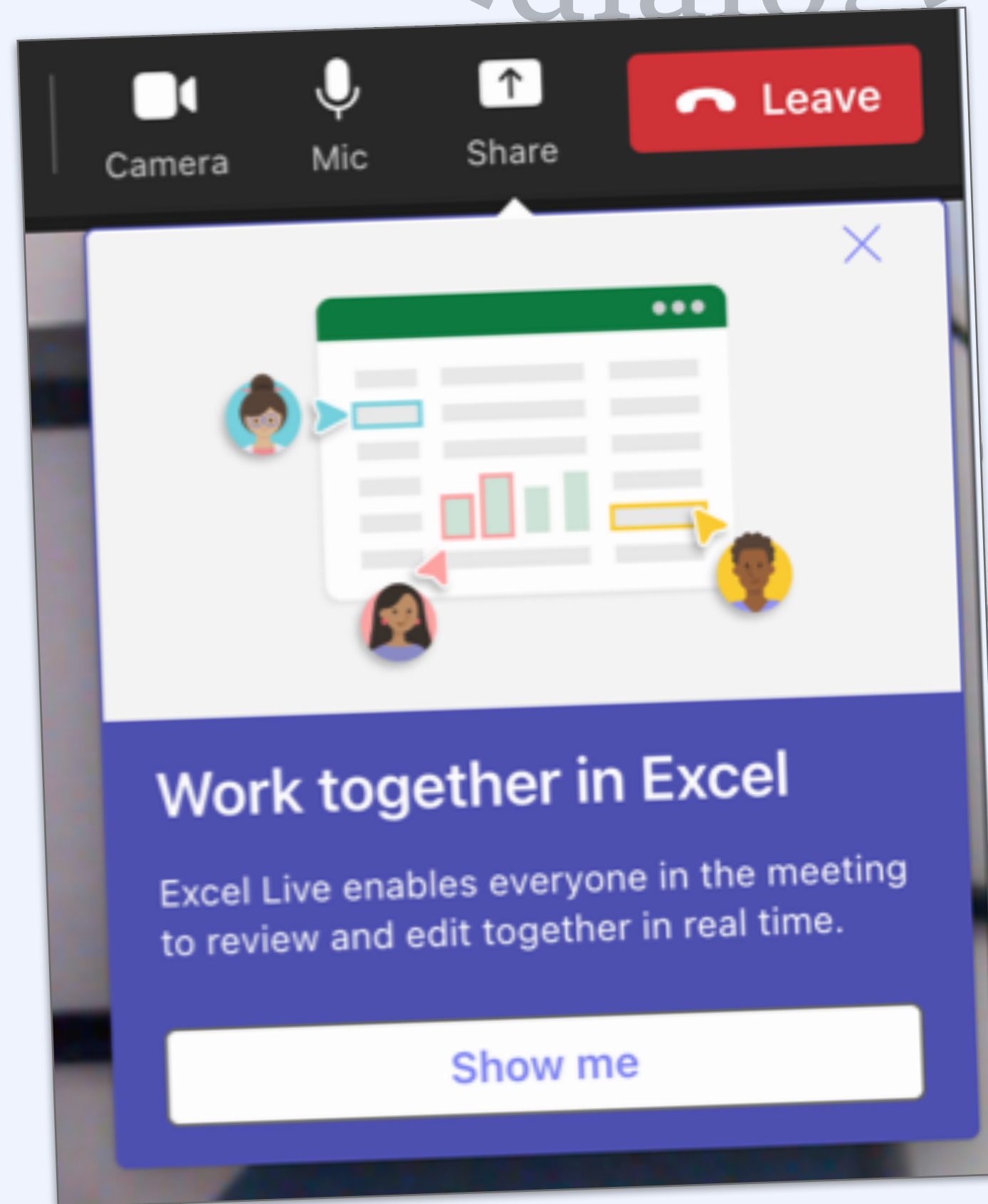
The popover attribute adds
behaviour, not roles

Popover and dialog w/ showModal()
uniquely show in the **top layer**

`<dialog>` and popover can reduce your JS bundle

popover attribute adds behaviour, not roles

and dialog w/ `showModal()` only show in the **top layer**



Don't use popovers to cross sell your products :-)

**THANK
YOU!**

Questions

@hdv on most platforms

Slides/resources

talks.hiddedevries.nl

Thanks

Scott O'Hara, Adrian Roselli, Jhey Tompkins