



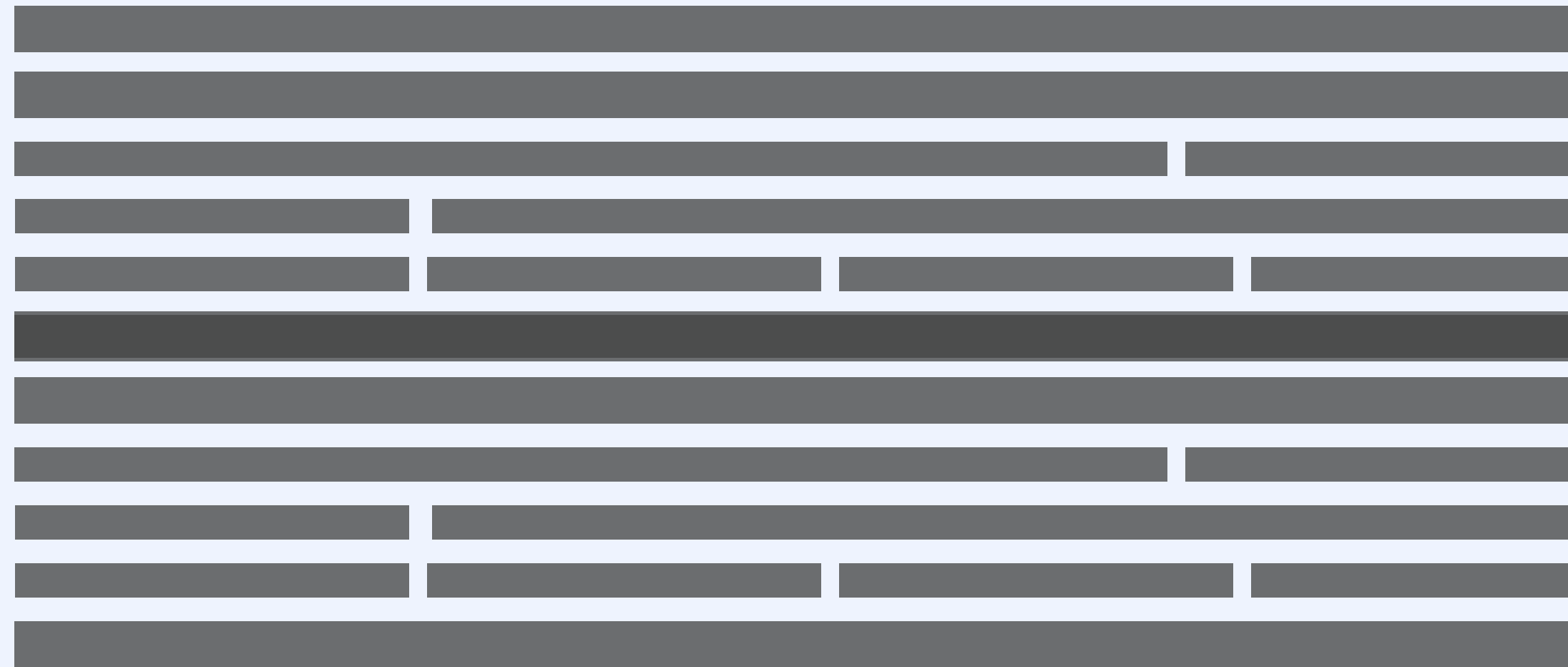
MODAL MISCHIEF & DIALOG DILEMMAS

Hidde de Vries

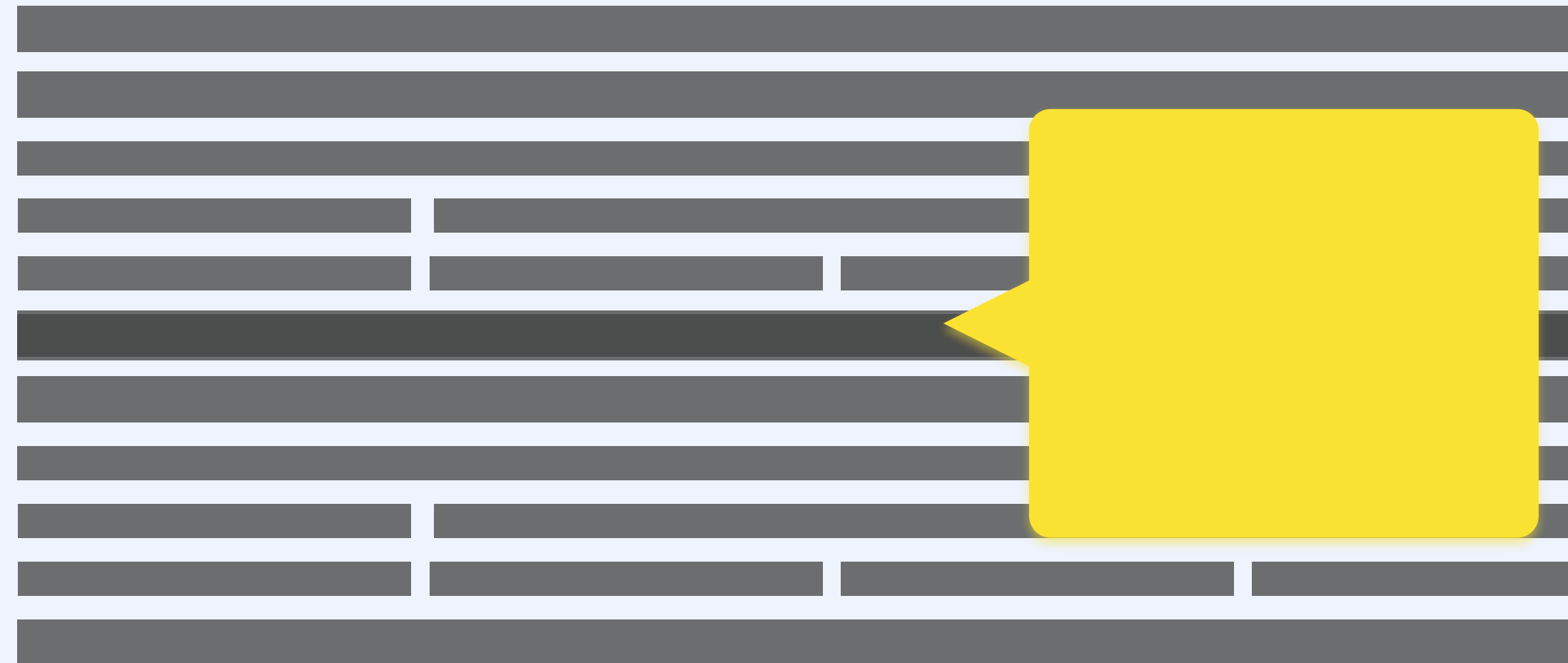
8 June 2023

CSS Day, Amsterdam

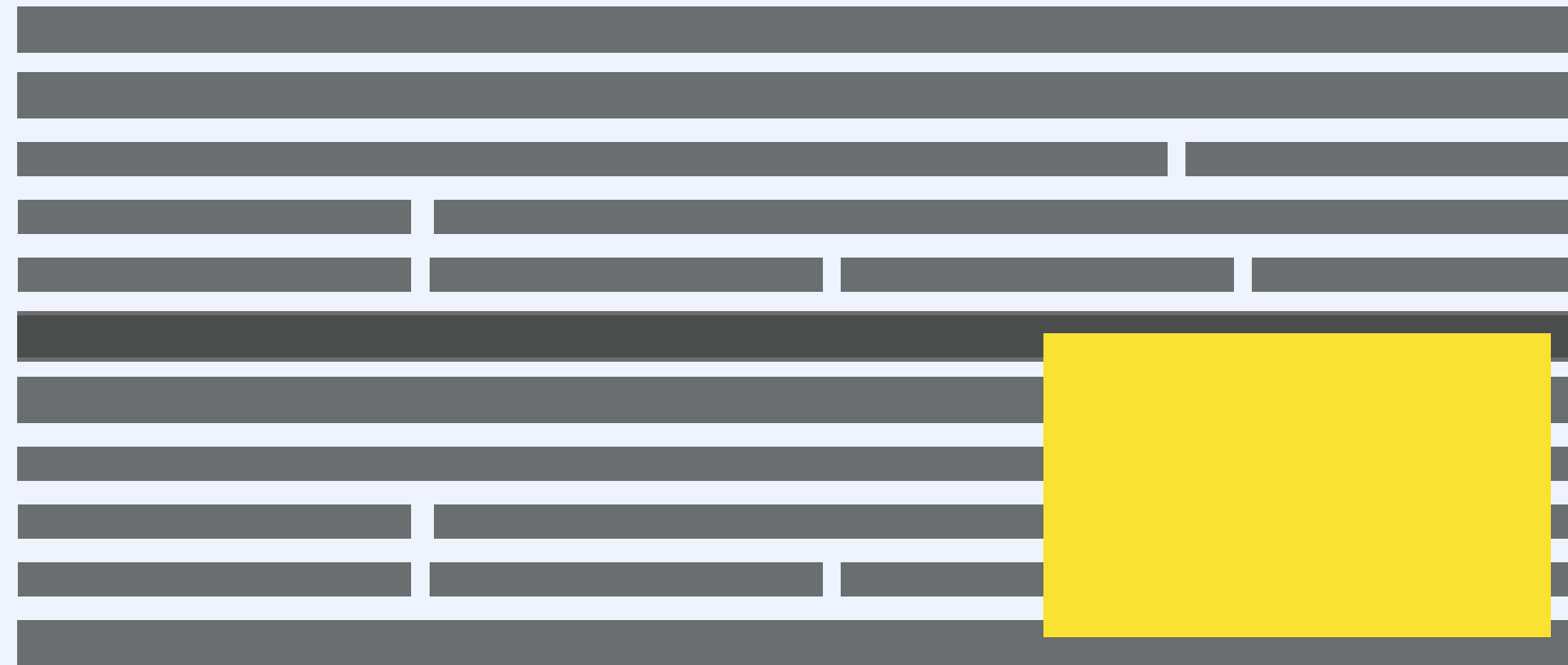
In the beginning,
content was linear...



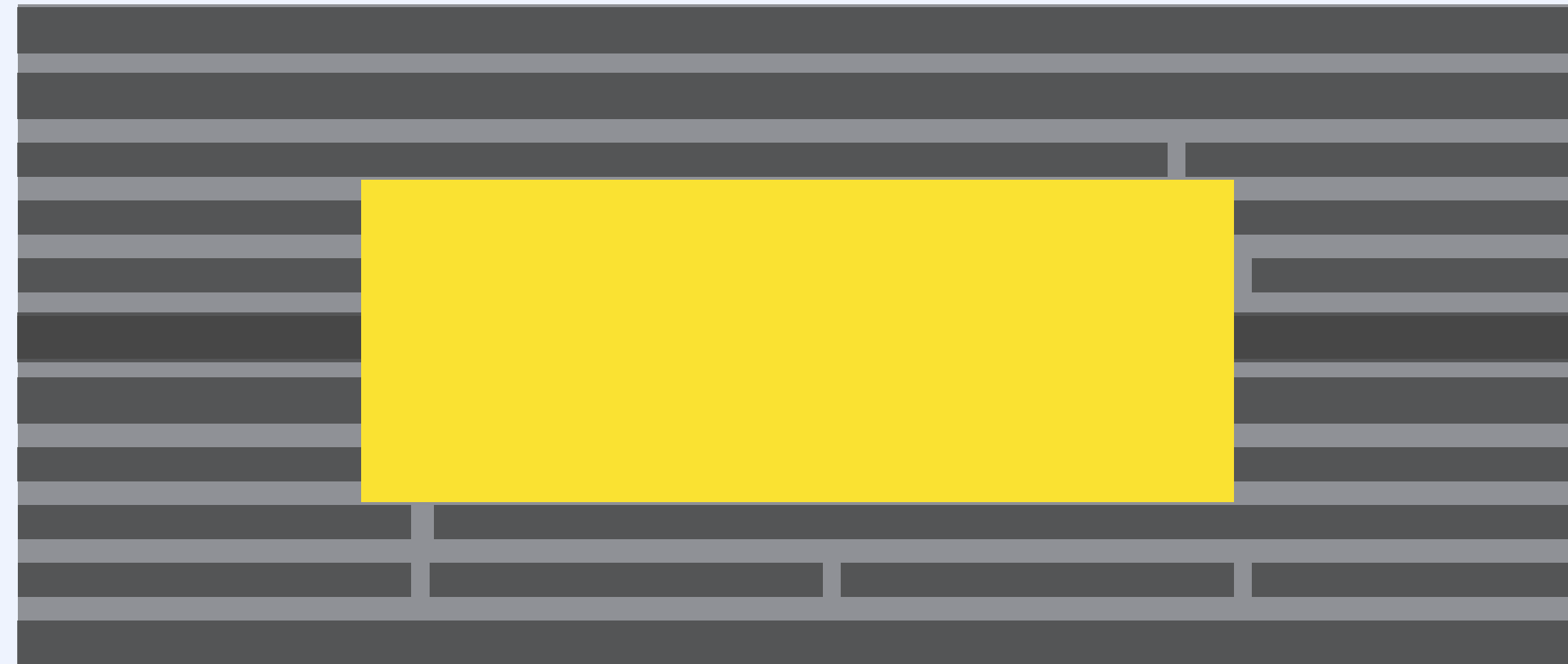
Today, it can overlap
in all sorts of ways



Today, it can overlap
in all sorts of ways



Today, it can overlap
in all sorts of ways



Jim the virtue of respecting nature and Earth. As a scientist, Mr Lovelock went on to develop Gaia theory, the idea that Earth is a single, complex, self-regulating system. Though initially rejected by life scientists, it became the main way many people conceive of the planet.

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That is just one of his many contributions to the search for life on other planets. In 1970, he was the first to look for life on other planets by analyzing the atmosphere in the 1970s, and he was the first to do so. His nomination to Britain's Royal Society in 1975, for his work in chemistry and physics—all because of his work on Gaia theory, which is named after Gaia.

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OK

Lovelock honed a method to find and quantify CFCs in the atmosphere. He spent a decade of work in biology, chemistry, and physics, for which he is best known (it is named after Gaia, the Earth).

To coincide with his 100th birthday, he has published a slim book on artificial intelligence (AI), written with Bryan Appleyard, a journalist. It is mind-stretching stuff.

<dialog>

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

popover

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

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.

<dialog>

UI considerations

HTML element with
support and (as of recently) good
accessibility support

Semantics

Positioning

popover

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

HI, I'M HIDDE

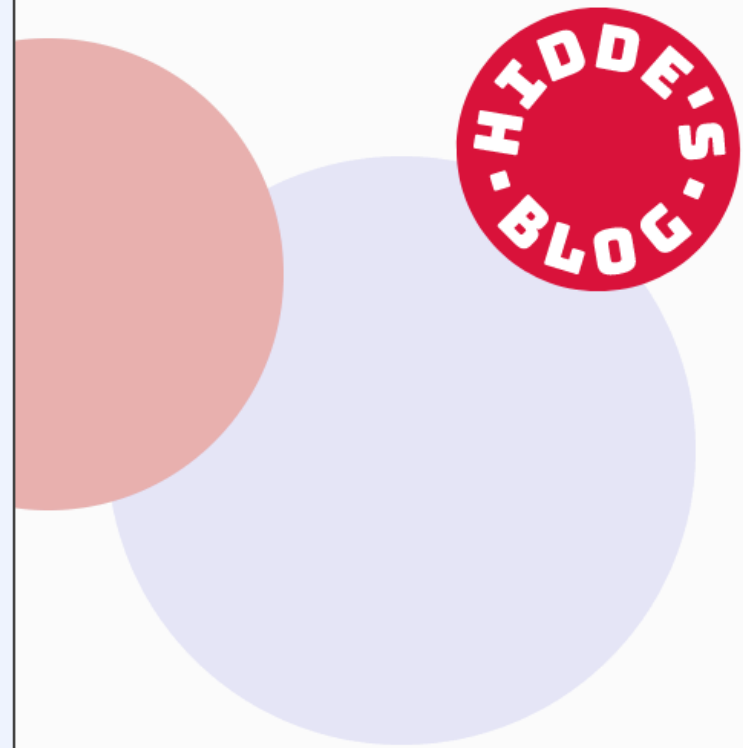
developer relations + accessibility
at NL Design System

participant at Open UI CG

hidde.blog

LIKE &
SUBSCRIBE





Blog

Posts about HTML, CSS, JavaScript, accessibility and browsers from the perspective of a curious front-end developer.

All 201 of them. For shorter writings, follow [@hdv@front-end.social](#) ([@hdv](#) [RSS](#)).

- books (10)
- events (44)
- front-end (25)
- industry (9)
- security (2)
- CSS (17)
- performance (1)
- Web Components (3)
- design systems (2)
- accessibility (38)
- elsewhere (3)
- personal (14)
- ethics (6)
- UX (1)
- ai (3)
- meta (5)
- primers (3)
- web platform (6)
- privacy (2)
- workflow (2)
- media (3)

▶ [RSS \(full\)](#)

▶ [Blog roll](#)

My ideal accessible components resource is holistic, well tested and easy to use

on Wed Mar 08 2023

To improve accessibility of the web as it is today, I feel we dearly need accessibility guidance that is holistic, well tested and easy to use

MUSIC
FILMS
CONCERTS
BOOKS

...

HIDDE.BLOG

words

I read this book

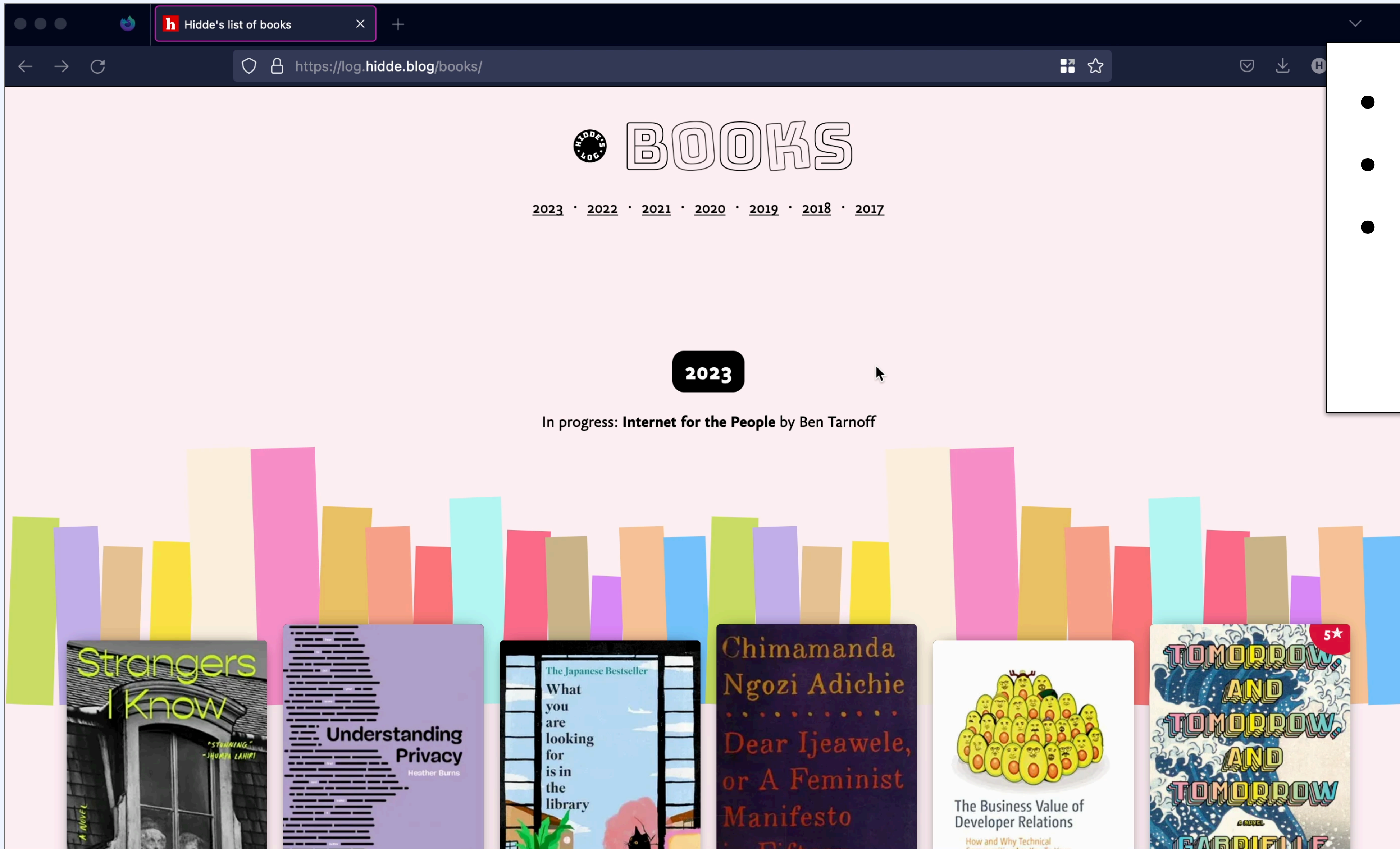
I went to a concert

LOG.HIDDE.BLOG

data points, things I liked

I listened to a song

I watched a film

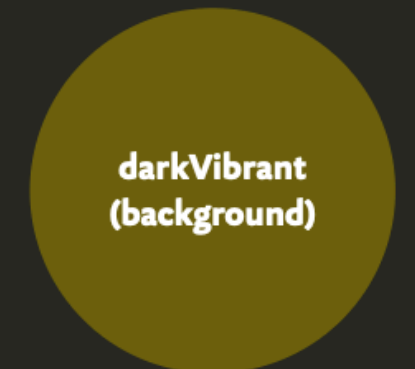
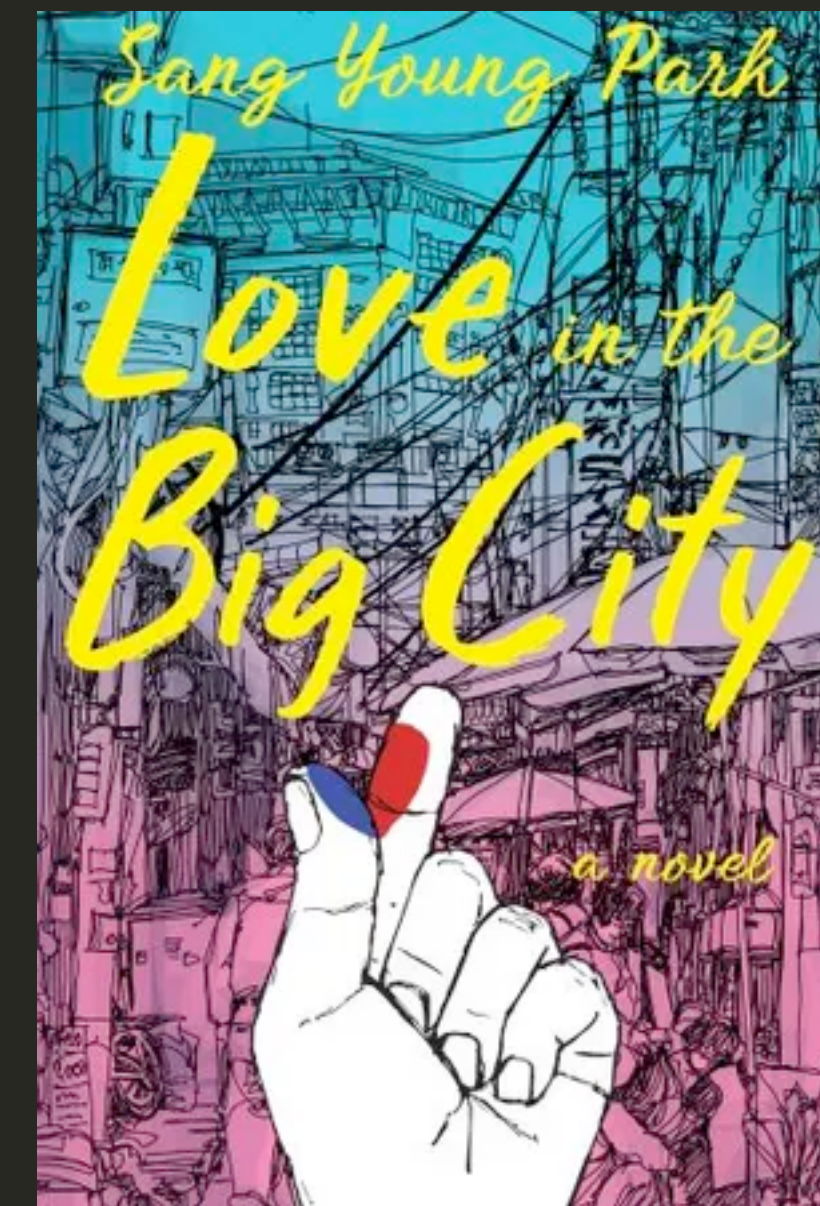


- Eleventy site
- Sanity data
- covers in many shapes and sizes

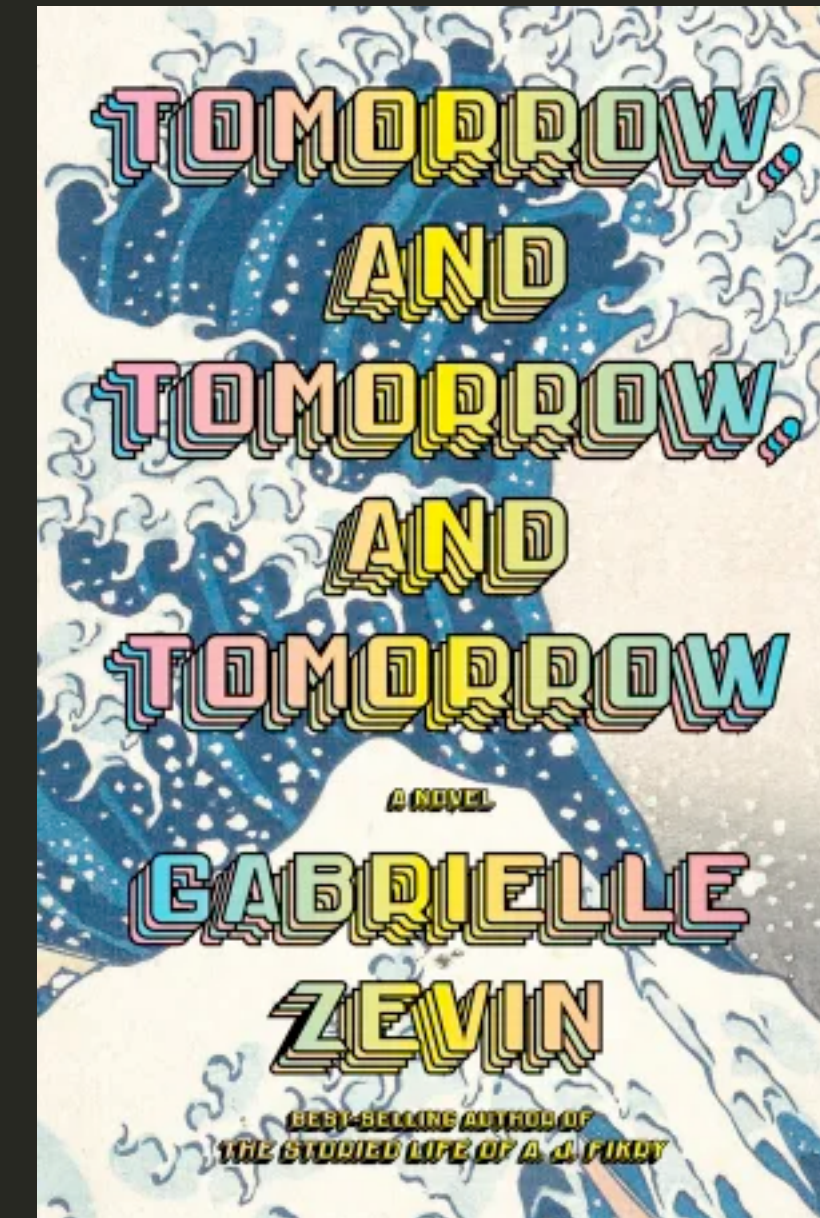
```
"palette": {
  "muted": {
    "background": "#53aa51",
    "_type": "sanity.imagePaletteSwatch",
    "foreground": "#fff",
    "title": "#fff",
    "population": 2.87
  },
  "lightVibrant": {
    "title": "#000",
    "population": 0,
    "background": "#acec84",
    "_type": "sanity.imagePaletteSwatch",
    "foreground": "#000"
  },
  "darkVibrant": {
    "_type": "sanity.imagePaletteSwatch",
    "foreground": "#fff",
    "title": "#fff",
    "population": 3.68,
    "background": "#1a418d"
  },
  "lightMuted": {
    "title": "#fff",
    "population": 1.93,
    "background": "#9ac2a5",
    "_type": "sanity.imagePaletteSwatch",
```



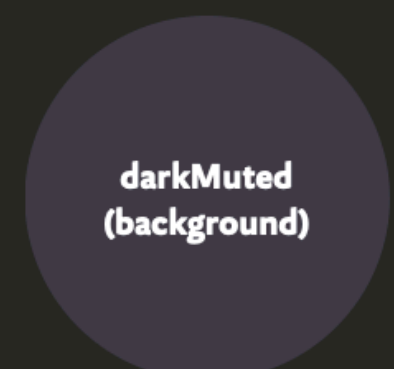
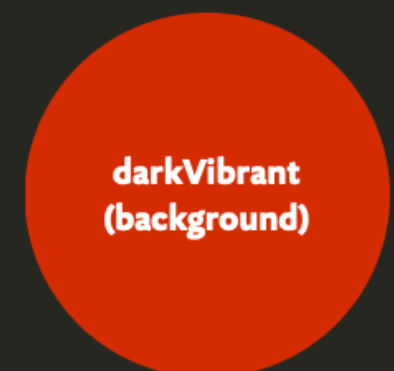
```
"palette": {  
  "muted": {  
    "background": "#53aa51",  
    "_type": "sanity.imagePaletteSwatch",  
    "foreground": "#fff",  
    "title": "#fff",  
    "population": 2.87  
  },  
  "lightVibrant": {  
    "title": "#000",  
    "population": 0,  
    "background": "#acec84",  
    "_type": "sanity.imagePaletteSwatch",  
    "foreground": "#000"  
  },  
  "darkVibrant": {  
    "_type": "sanity.imagePaletteSwatch",  
    "foreground": "#fff",  
    "title": "#fff",  
    "population": 3.68,  
    "background": "#1a418d"  
  },  
  "lightMuted": {  
    "title": "#fff",  
    "population": 1.93,  
    "background": "#9ac2a5",  
    "_type": "sanity.imagePaletteSwatch",
```



```
"palette": {  
  "muted": {  
    "background": "#53aa51",  
    "_type": "sanity.imagePaletteSwatch",  
    "foreground": "#fff",  
    "title": "#fff",  
    "population": 2.87  
  },  
  "lightVibrant": {  
    "title": "#000",  
    "population": 0,  
    "background": "#acec84",  
    "_type": "sanity.imagePaletteSwatch",  
    "foreground": "#000"  
  },  
  "darkVibrant": {  
    "_type": "sanity.imagePaletteSwatch",  
    "foreground": "#fff",  
    "title": "#fff",  
    "population": 3.68,  
    "background": "#1a418d"  
  },  
  "lightMuted": {  
    "title": "#fff",  
    "population": 1.93,  
    "background": "#9ac2a5",  
    "_type": "sanity.imagePaletteSwatch",
```

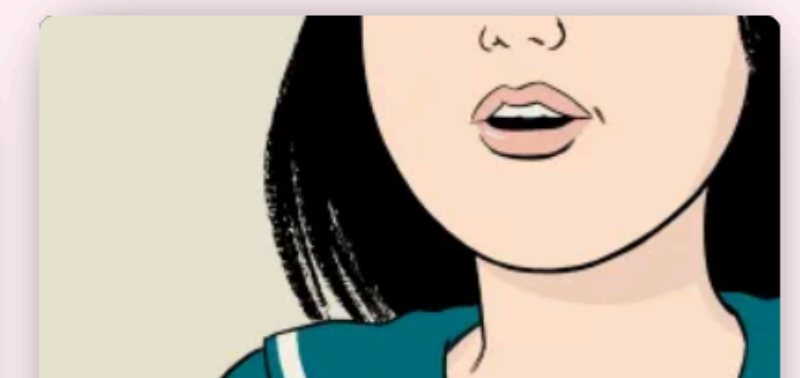
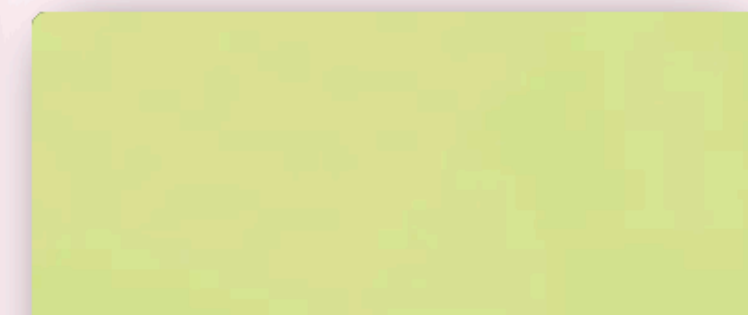
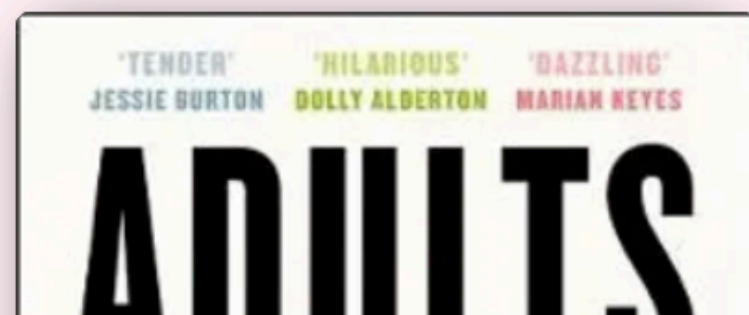


```
"palette": {  
  "muted": {  
    "background": "#53aa51",  
    "_type": "sanity.imagePaletteSwatch",  
    "foreground": "#fff",  
    "title": "#fff",  
    "population": 2.87  
  },  
  "lightVibrant": {  
    "title": "#000",  
    "population": 0,  
    "background": "#acec84",  
    "_type": "sanity.imagePaletteSwatch",  
    "foreground": "#000"  
  },  
  "darkVibrant": {  
    "_type": "sanity.imagePaletteSwatch",  
    "foreground": "#fff",  
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    "population": 3.68,  
    "background": "#1a418d"  
  },  
  "lightMuted": {  
    "title": "#fff",  
    "population": 1.93,  
    "background": "#9ac2a5",  
    "_type": "sanity.imagePaletteSwatch",
```



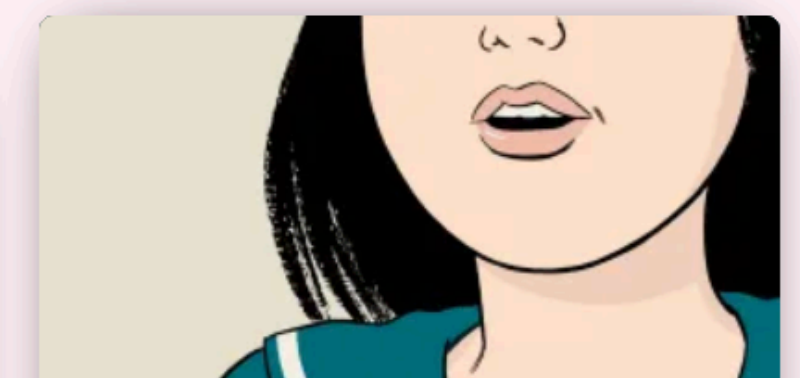
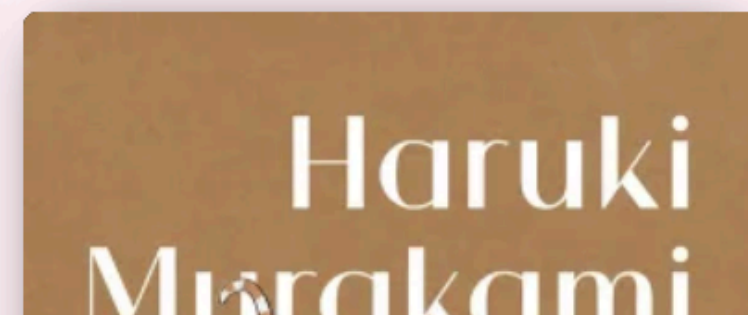
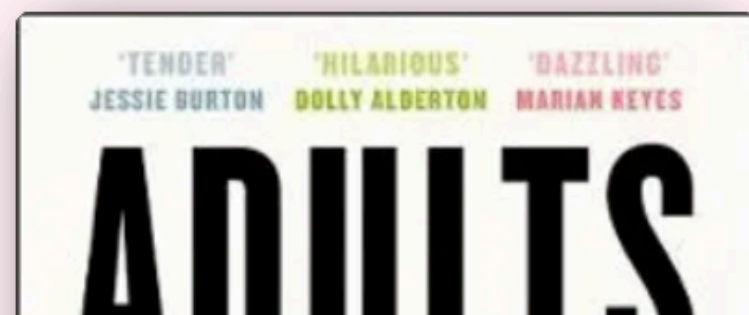

```
<div class="book-case">
  {% for book in yearCollection %}
  <span
    style="
      background-color:
        {{ book.image.asset.metadata.palette.lightVibrant.background }};
    ">
  </span>
  {% endfor %}
</div>
```

books.njk



```
<div class="book-case">
  {% for book in yearCollection %}
  <span
    style="
      background-color:
        {{ book.image.asset.metadata.palette.lightVibrant.background }};
      flex: {{ book.pages }};
    ">
  </span>
  {% endfor %}
</div>
```

books.njk



```
.book-case > span {  
  aspect-ratio: 1 / 8;  
  max-width: 2em;  
  transform: rotate(-2deg);  
}
```

```
.book-case > span {  
  aspect-ratio: 1 / 8;  
  max-width: 2em;  
  transform: rotate(-2deg);  
}
```

books.css



Zwangerere
Guy

in Amsterdam

★★★★

on 2022-03-16 at Paradiso

Gentleman's
Dub Club

in London

★★★

on 2022-03-06 at O2 Forum Kentish Town

Robert
Glasper

in Menlo Park

★★★★★

on 2022-02-25 at The Guild Theatre

Nubya
Garcia

in Rotterdam

★★★★★

on 2021-11-14 at Lantaren Venster

Jeff Neve

in Rotterdam

★★★★

on 2021-10-24 at Lantaren Venster

Brad Mehldau

in Rotterdam

★★★★

on 2021-10-23 at De Doelen

Luke
Slater

in Amsterdam

★★★★★

on 2021-10-14 at Muziekgebouw
aan 't IJ

Erik
Friedlander
Sentinel

in Rotterdam

★★★

on 2021-10-03 at Lantaren Venster

LUWTTEN

in Amsterdam

★★★★★

on 2021-07-30 at Muziekgebouw aan 't IJ

Ellen
Allien

in Rotterdam

★★★★

on 2019-07-06 at Vroesepark • Expedition
in Rotterdam

Ntiam

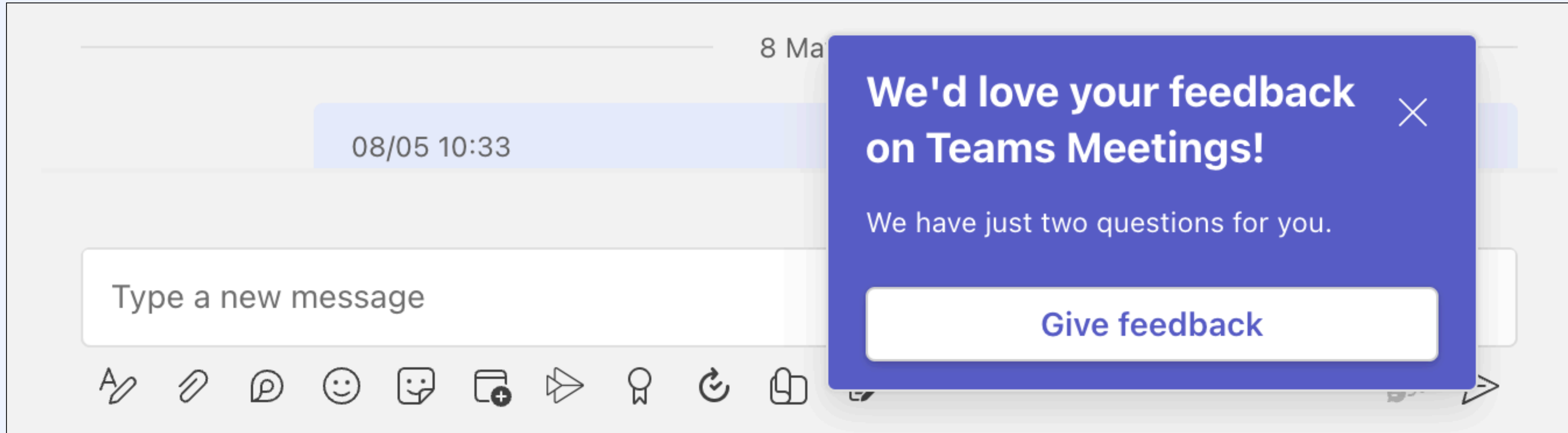
Kurt Elling in Rotterdam

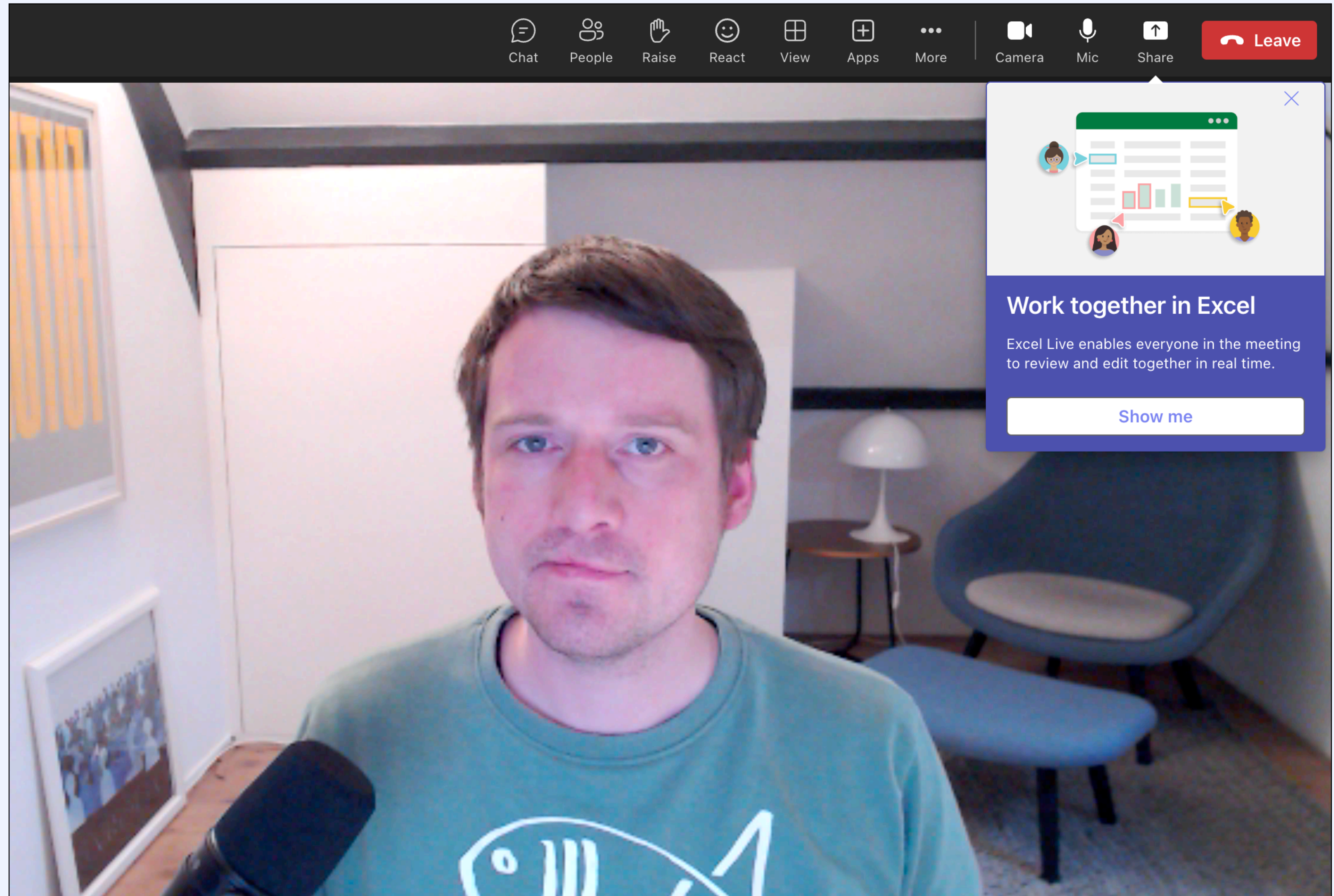
Ellen

DIALOGS VS POPOVERS

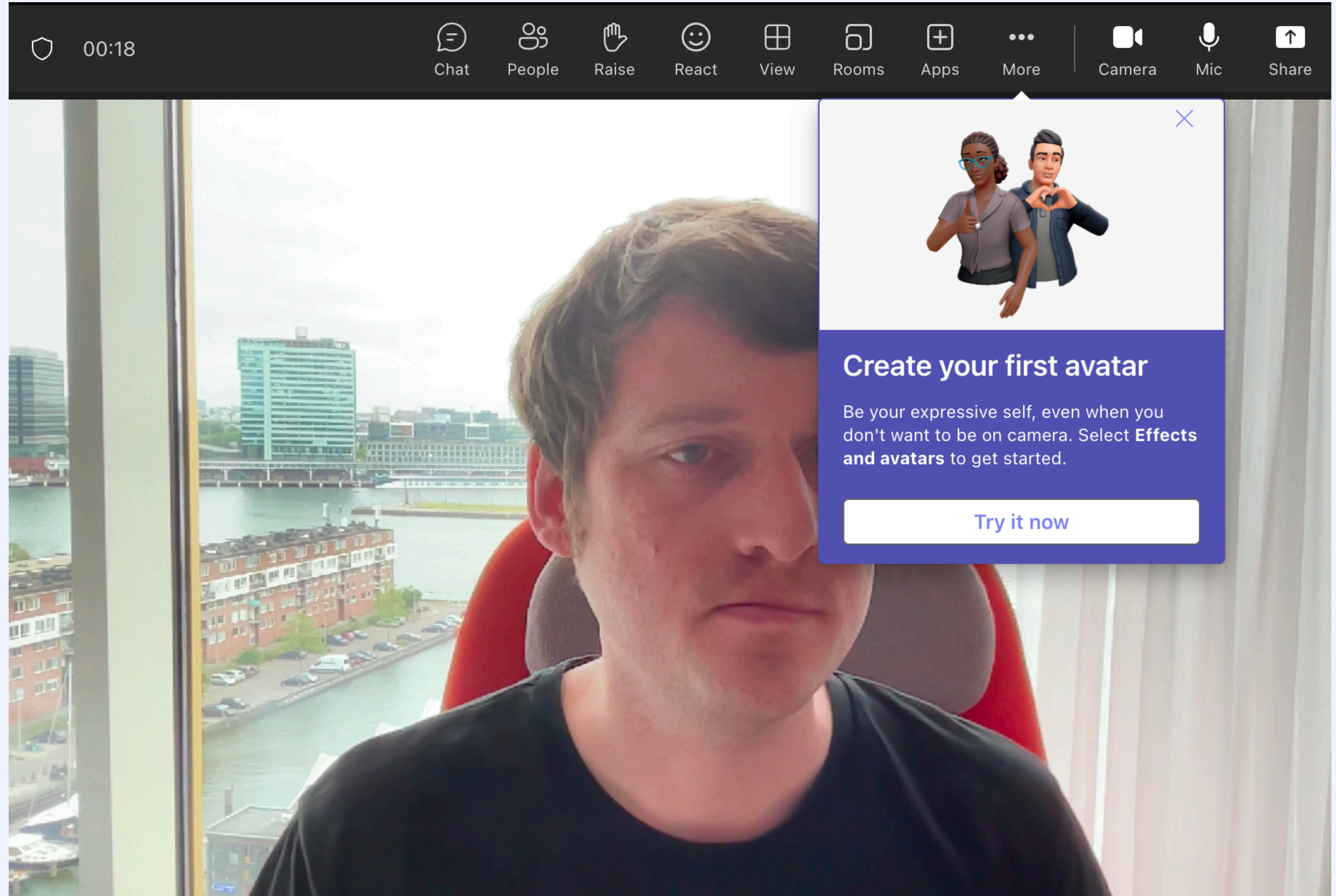
Teams: a timed popover to ask for feedback

@hdv@front-end.social



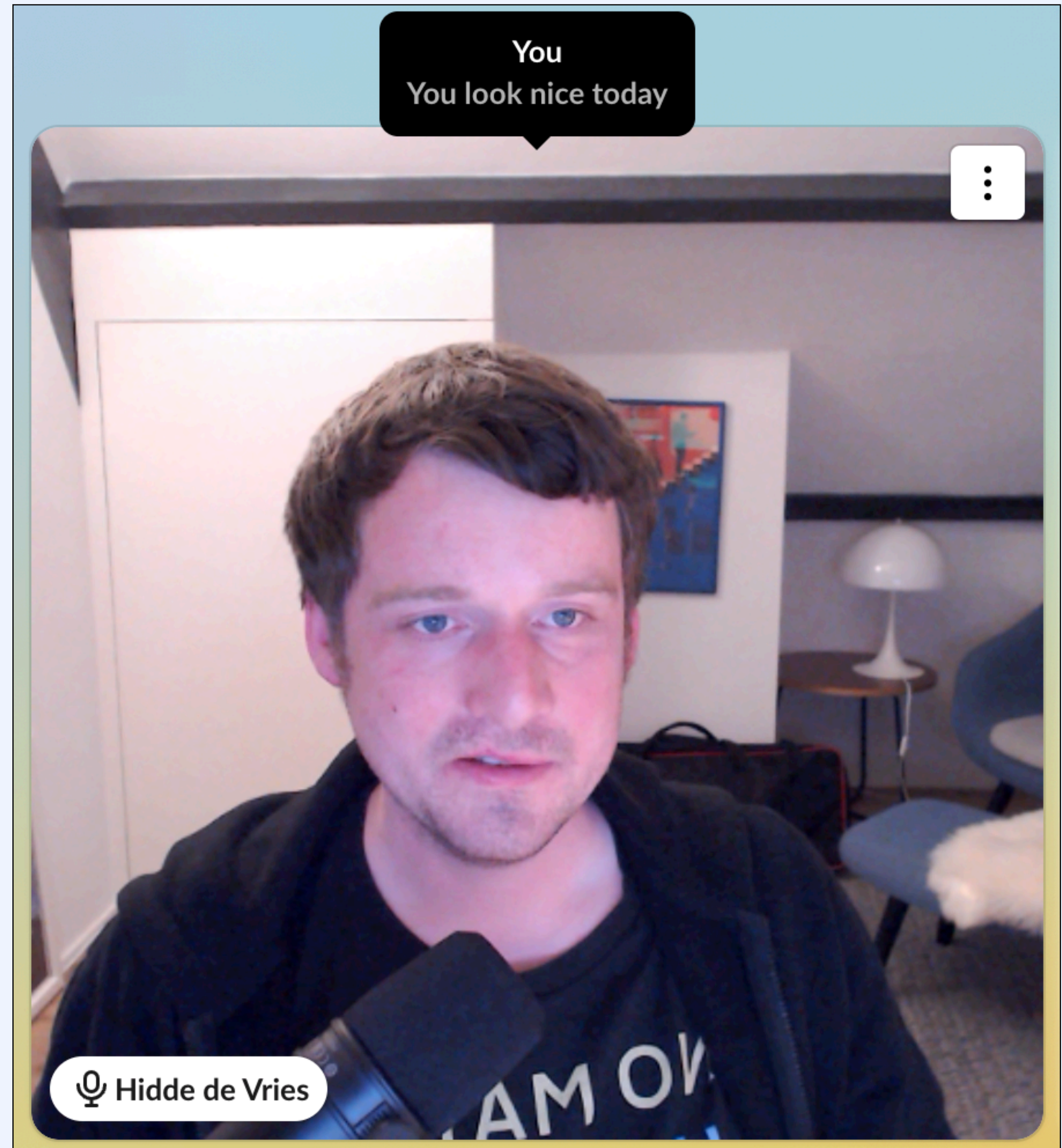


Teams: a popover to teach about an Excel integration



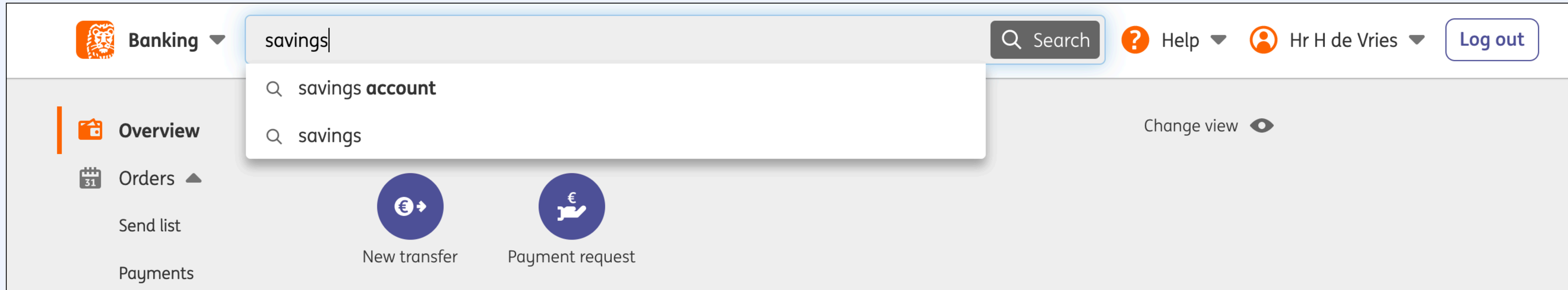
Teams: a popover to urge me to be my expressive self

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



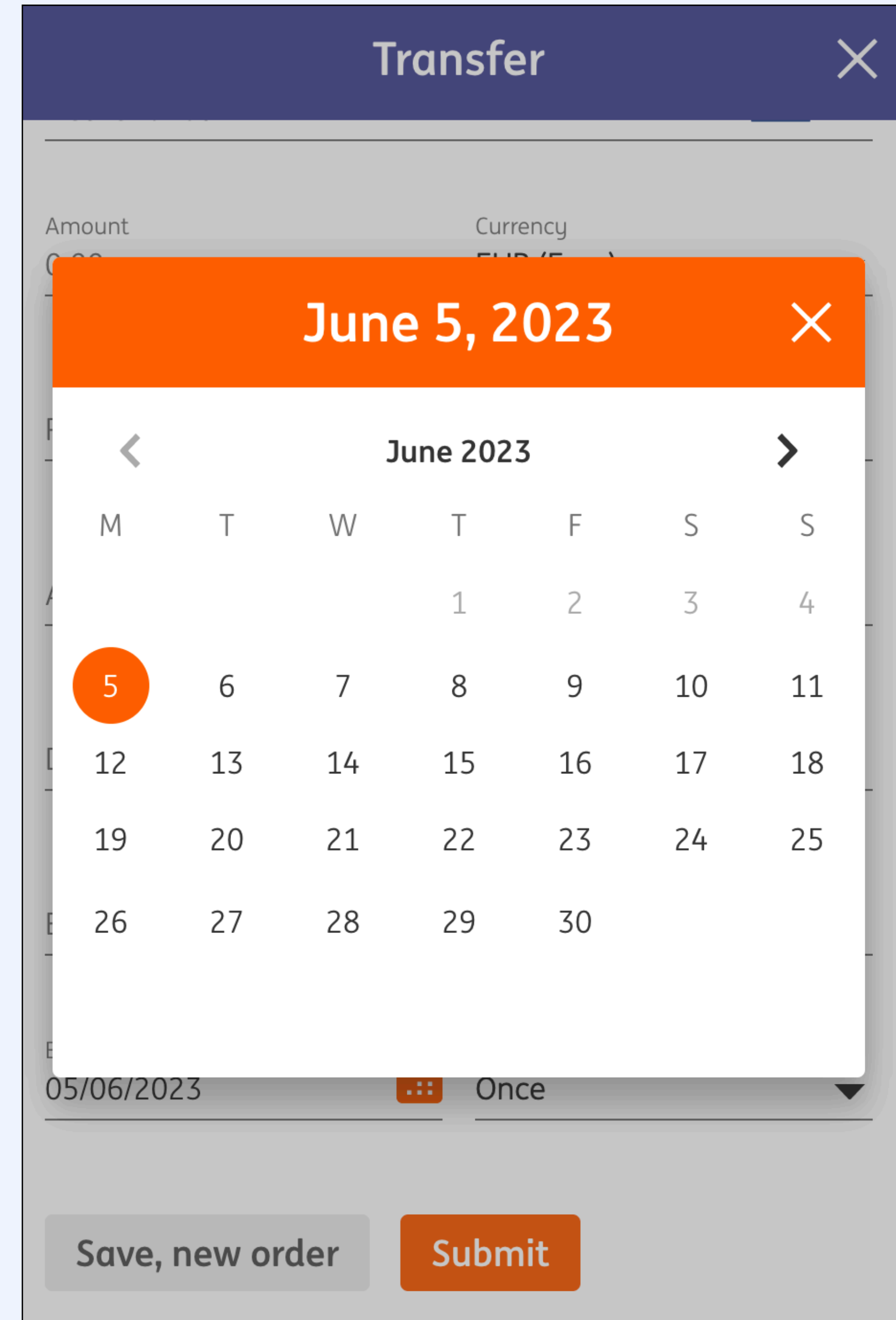
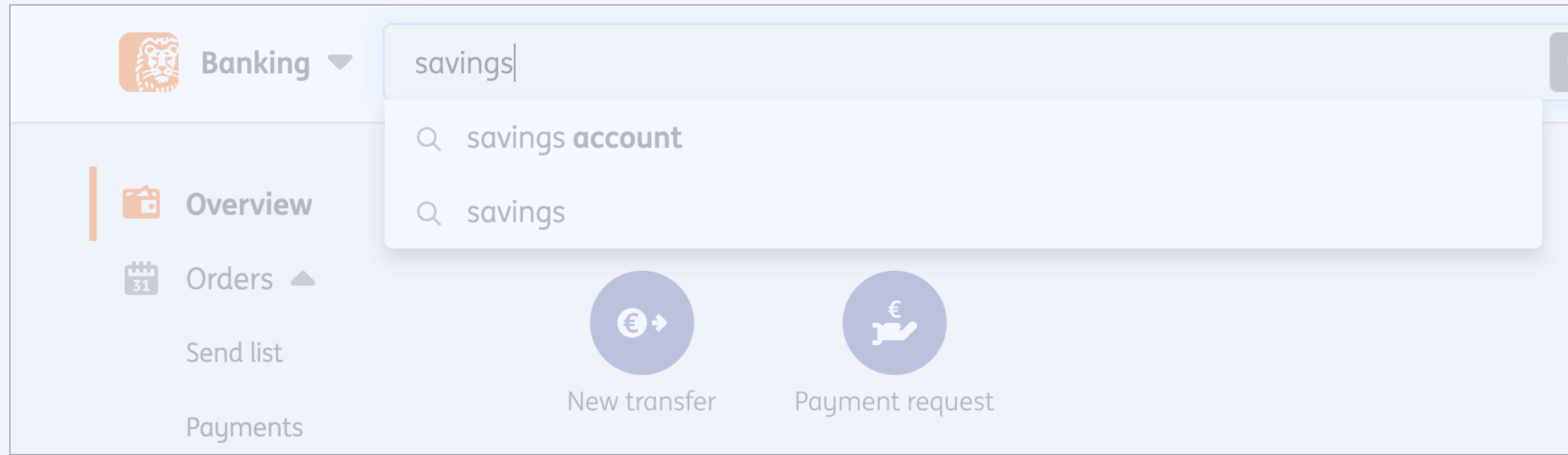
Online banking: a popover to autocomplete search query

@hdv@front-end.social



Online banking: a popover to autocomplete search query

@hdv@front-end.social



Online banking: a popover to select a transfer date

DIALOG

What is it

<dialog>: The Dialog element

The `<dialog>` [HTML](#) element represents a dialog box or other interactive component, such as a dismissible alert, inspector, or subwindow.

developer.mozilla.org/en-US/docs/Web/HTML/Element/dialog

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, with built-in dialog role and modal setting

```
<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>



POPOVER

What is it

a floating piece of UI
with supplemental or
contextual content

“non-modal dialog”

“transient content”

[POPOVER]

What is it

a set of behaviors
that can be added to
any element through
the popover attribute

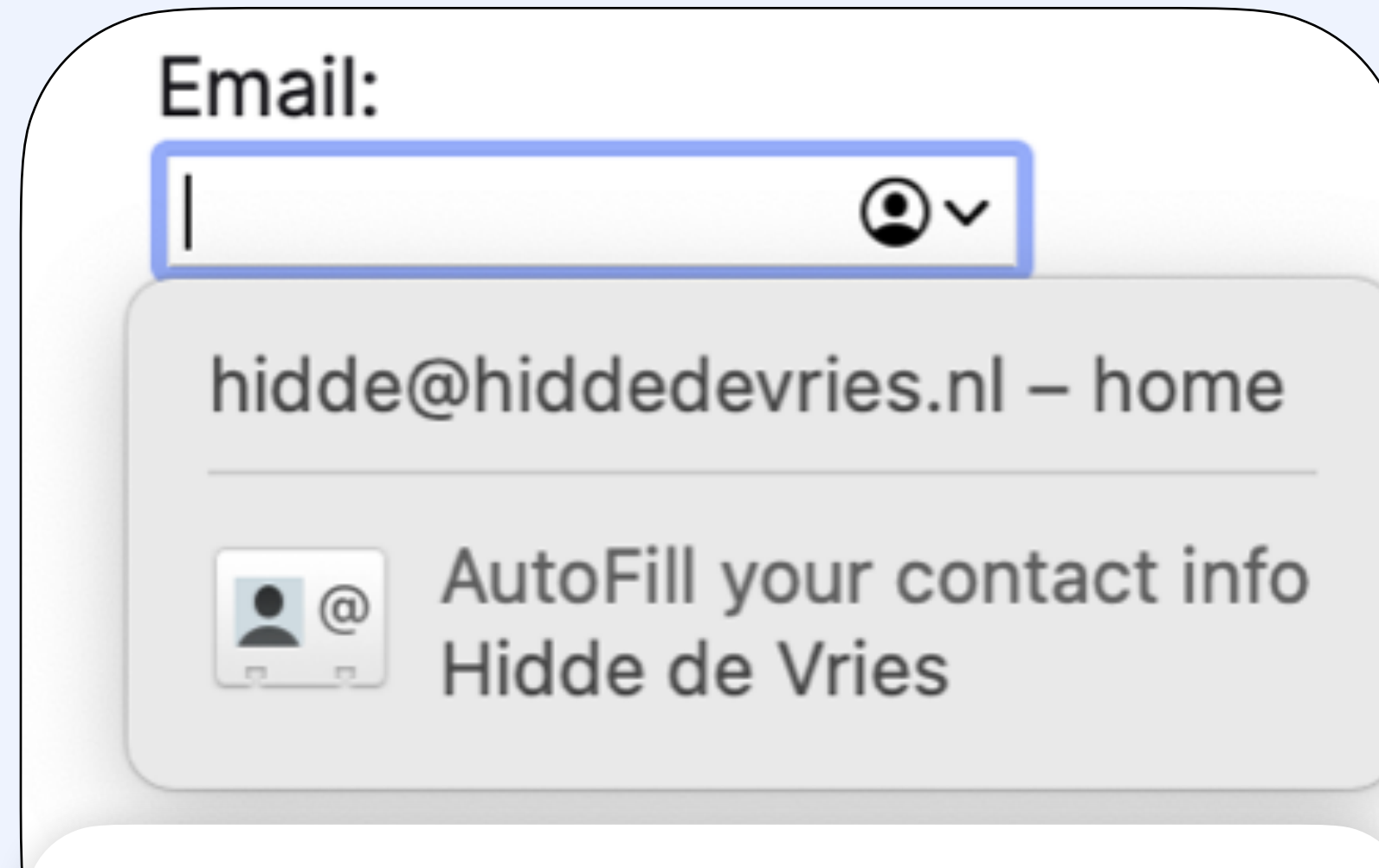
```
<div popover>... </div>
```

[POPOVER]

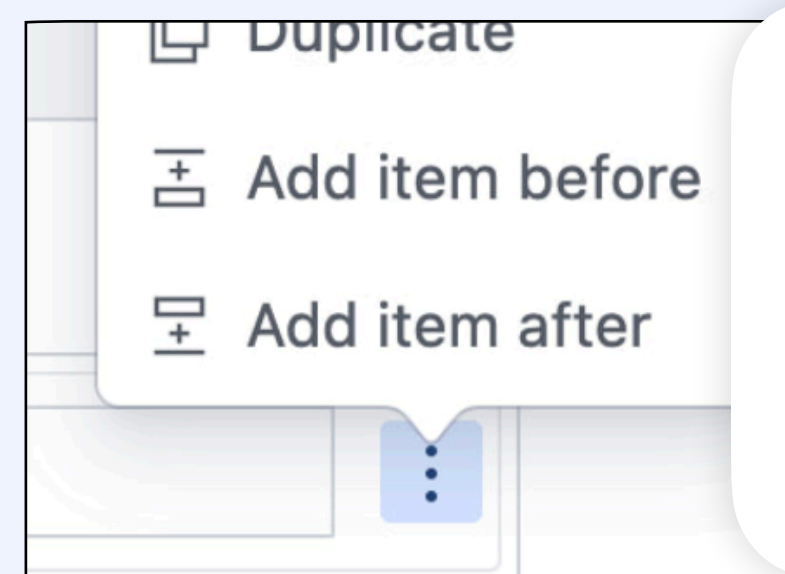
Use cases



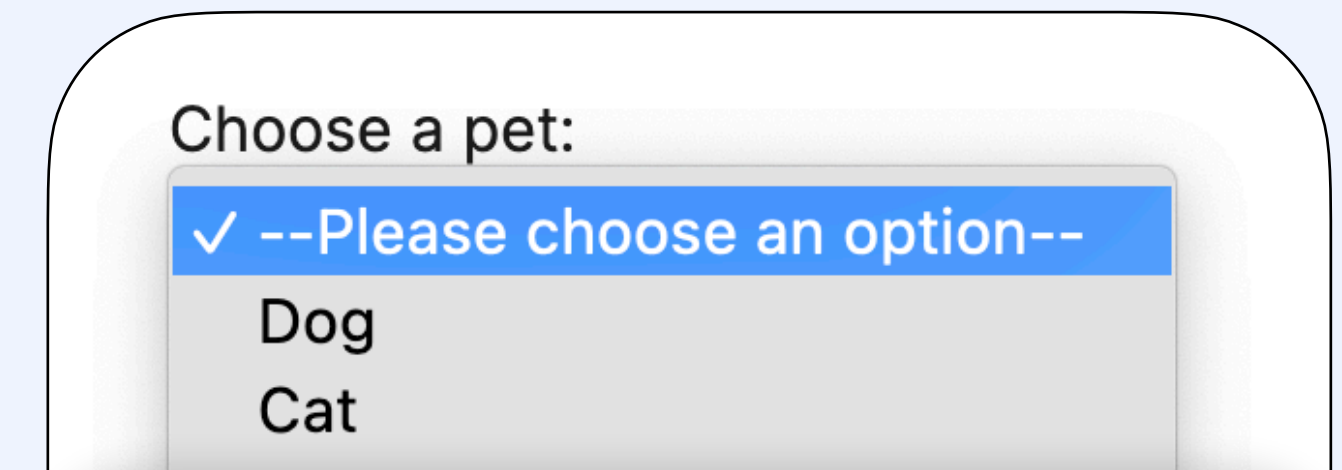
content
pickers



form element
suggestions

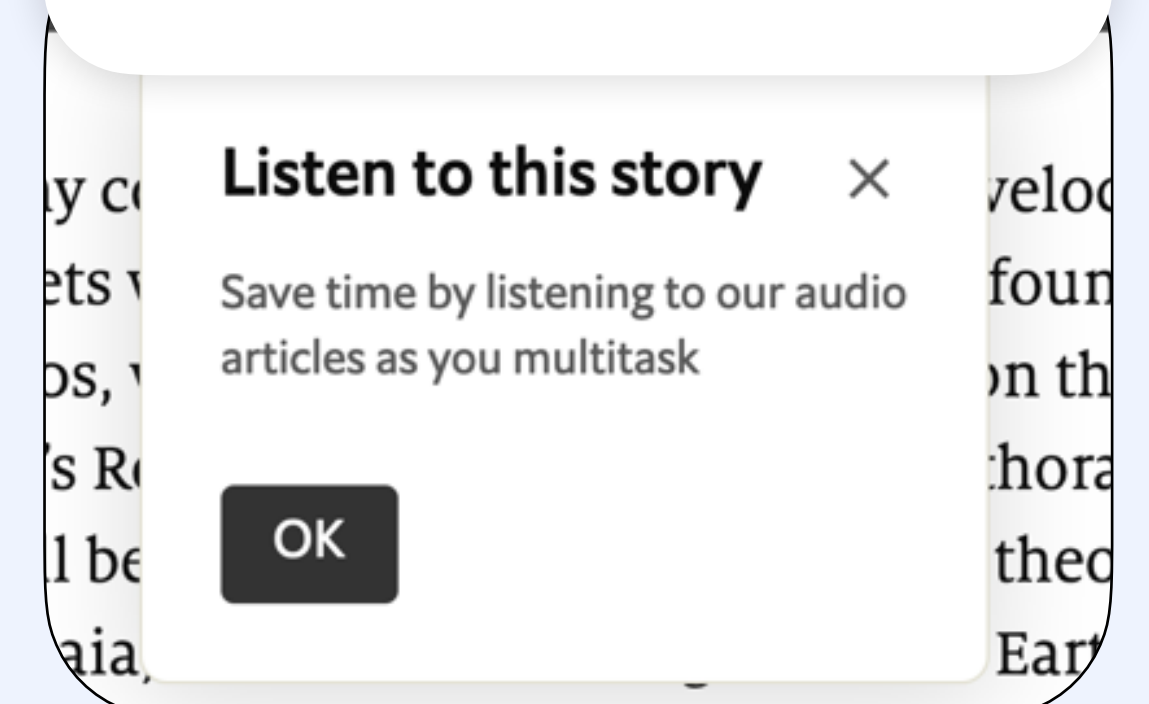


action
menus



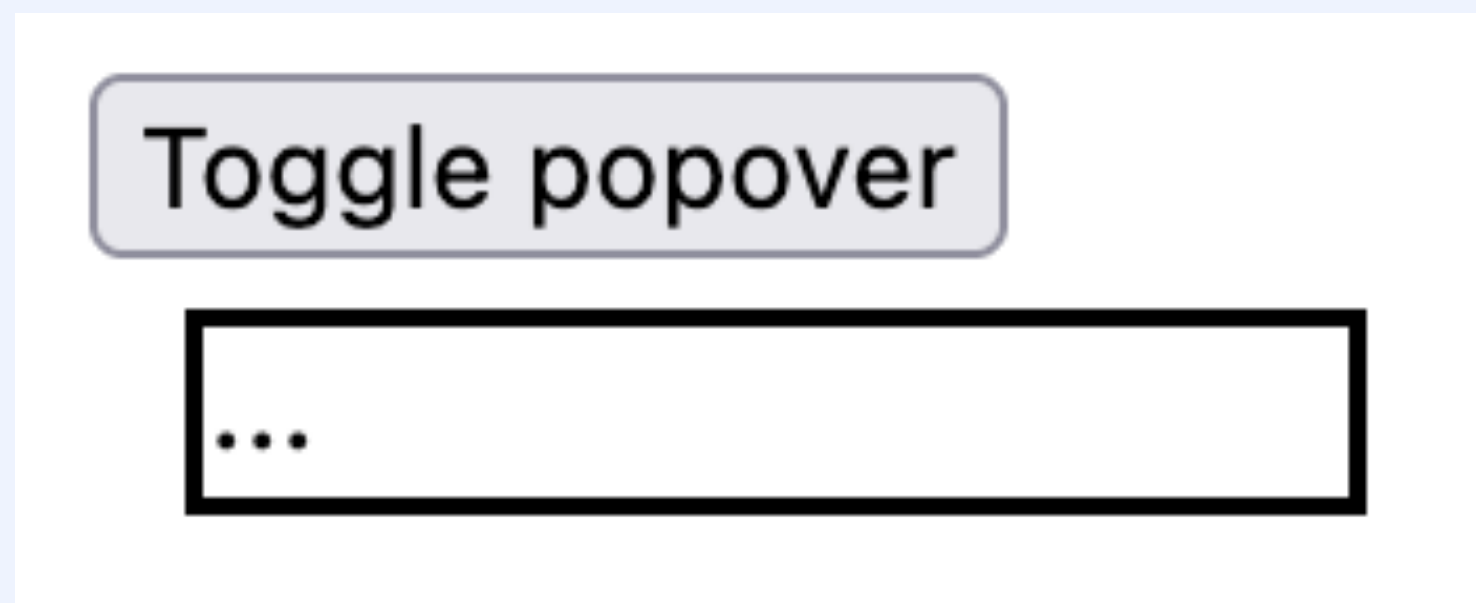
<select>'s
listbox

teaching
UI



[POPOVER]

*No JavaScript
required*

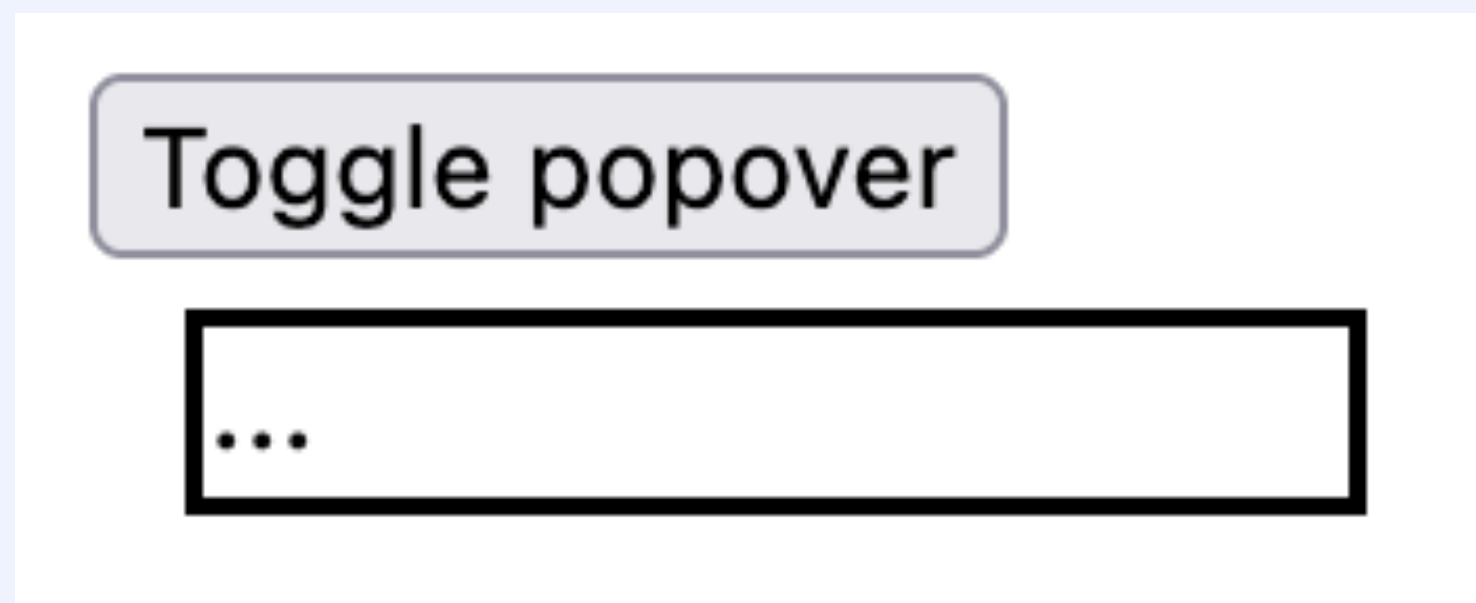


```
<button>  
  Toggle popover  
</button>
```

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

[POPOVER]

*No JavaScript
required*



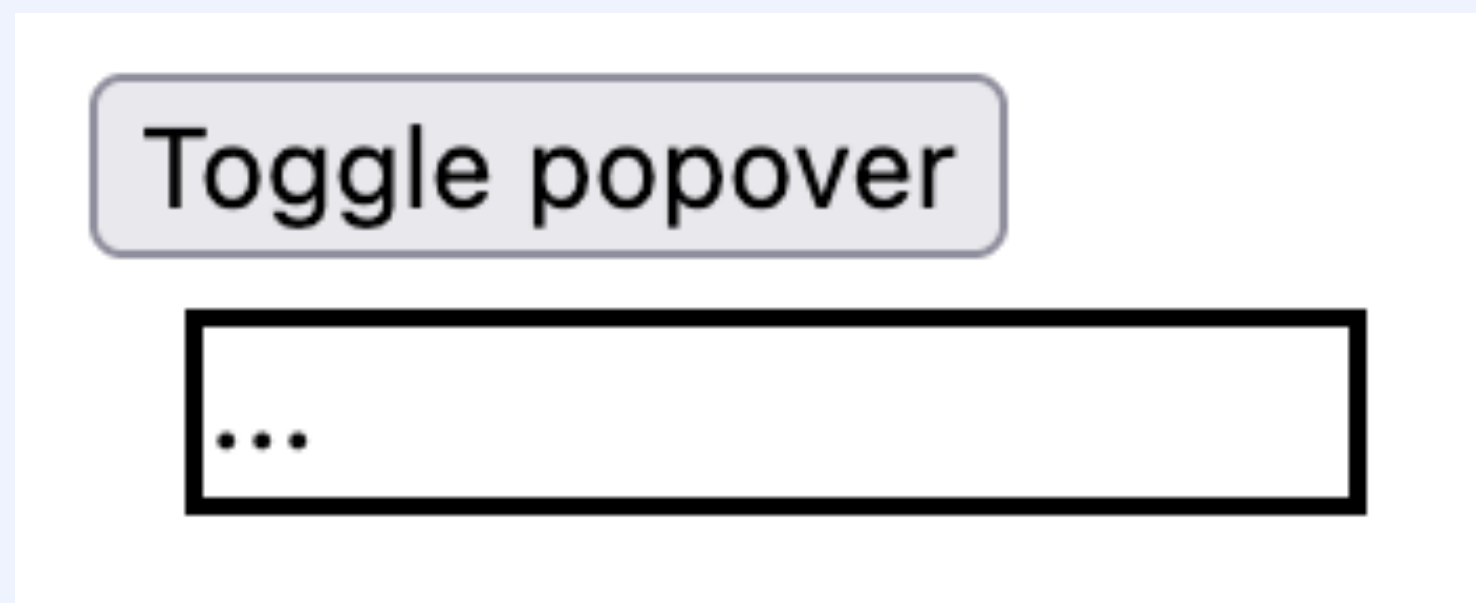
```
<button>  
  Toggle popover  
</button>
```

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

make it a
popover

[POPOVER]

*No JavaScript
required*



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

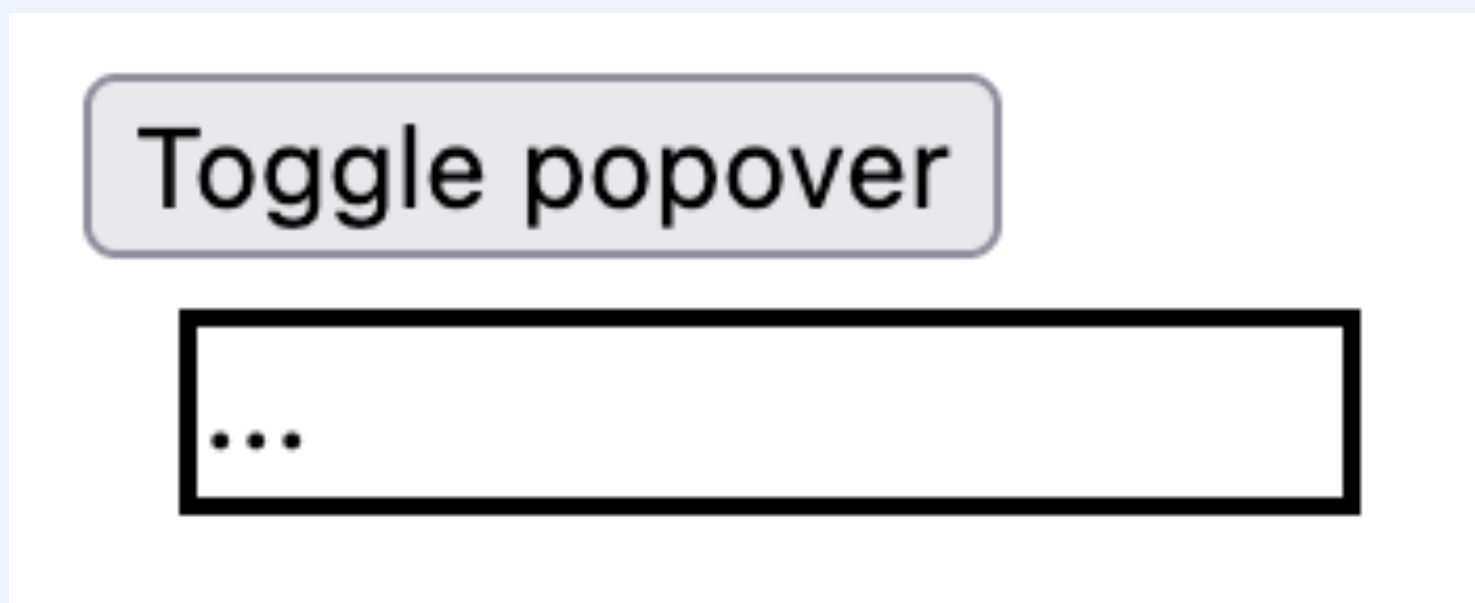
```
<div popover id="p">
```

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

add a
unique ID

[POPOVER]

*No JavaScript
required*



point button to ID

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

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

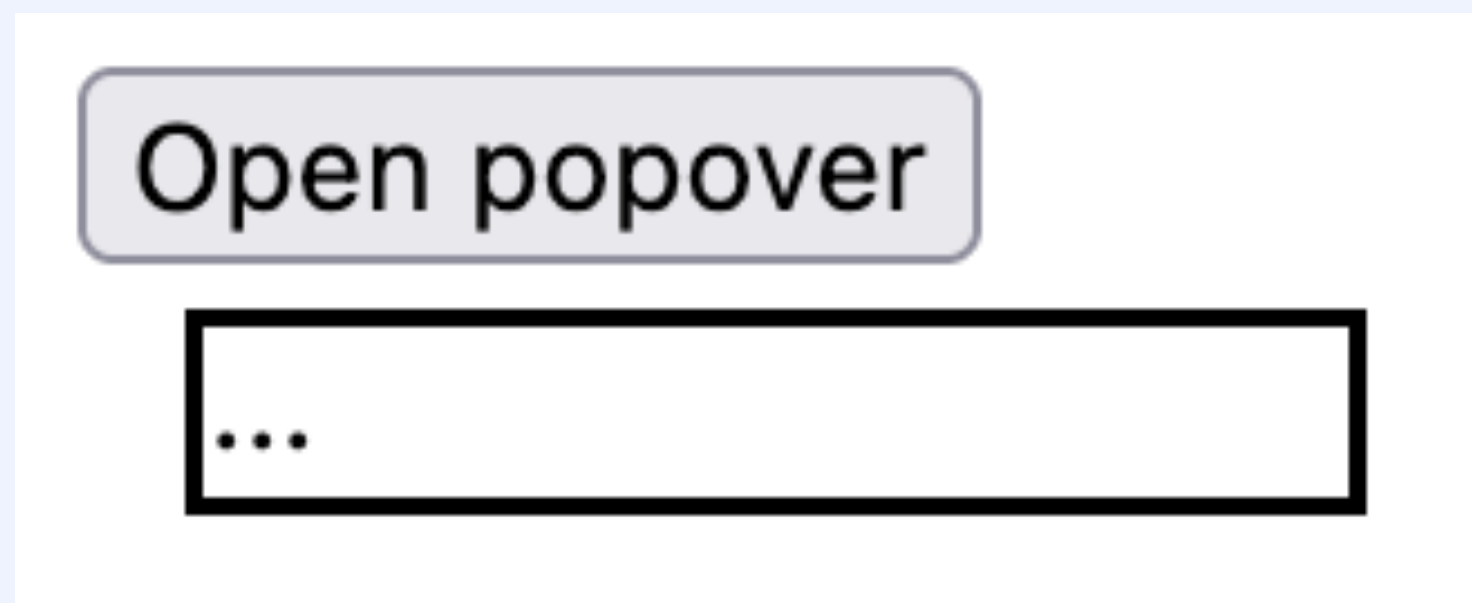
DO WE WANT THIS FOR DIALOG TOO?

github.com/whatwg/html/issues/3567

The screenshot shows a web browser window displaying a GitHub issue page. The browser's address bar shows the URL `https://github.com/whatwg/html/issues/3567`. The page header includes the GitHub logo, a search bar, and navigation links for Pulls, Issues, Codespaces, Marketplace, Explore, and a user profile. Below the header, the repository name `whatwg/html` is shown as Public, with buttons for Edit Pins, Watch (675), Fork (2.6k), and Star (6.8k). A secondary navigation bar includes Code, Issues (1.7k), Pull requests (155), Actions, Wiki, Security, and Insights. The main content area features the issue title `Have some way of opening <dialog> elements without JavaScript #3567` and a `New issue` button. Below the title, it indicates the issue is `Open`, opened by `keithamus` on `Mar 14, 2018`, with `54 comments`. A comment from `keithamus` is visible, stating: `dialog elements are a great addition and I'm glad they're getting implemented, but a key part of their functionality relies on JavaScript: to open a <dialog> you need to use JavaScript to set the open attribute.` To the right of the comment, there are sections for `Assignees` (No one assigned) and `Labels`.

[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]

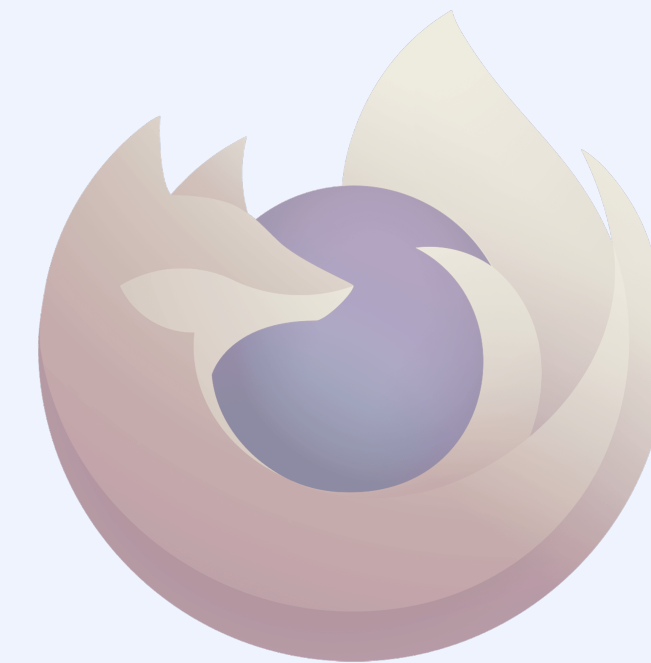
*Open/close
with script*

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

CURRENT STATUS: POPOVER ATTRIBUTE/API



in Chromium 114
(Chrome stable, Edge stable soon)

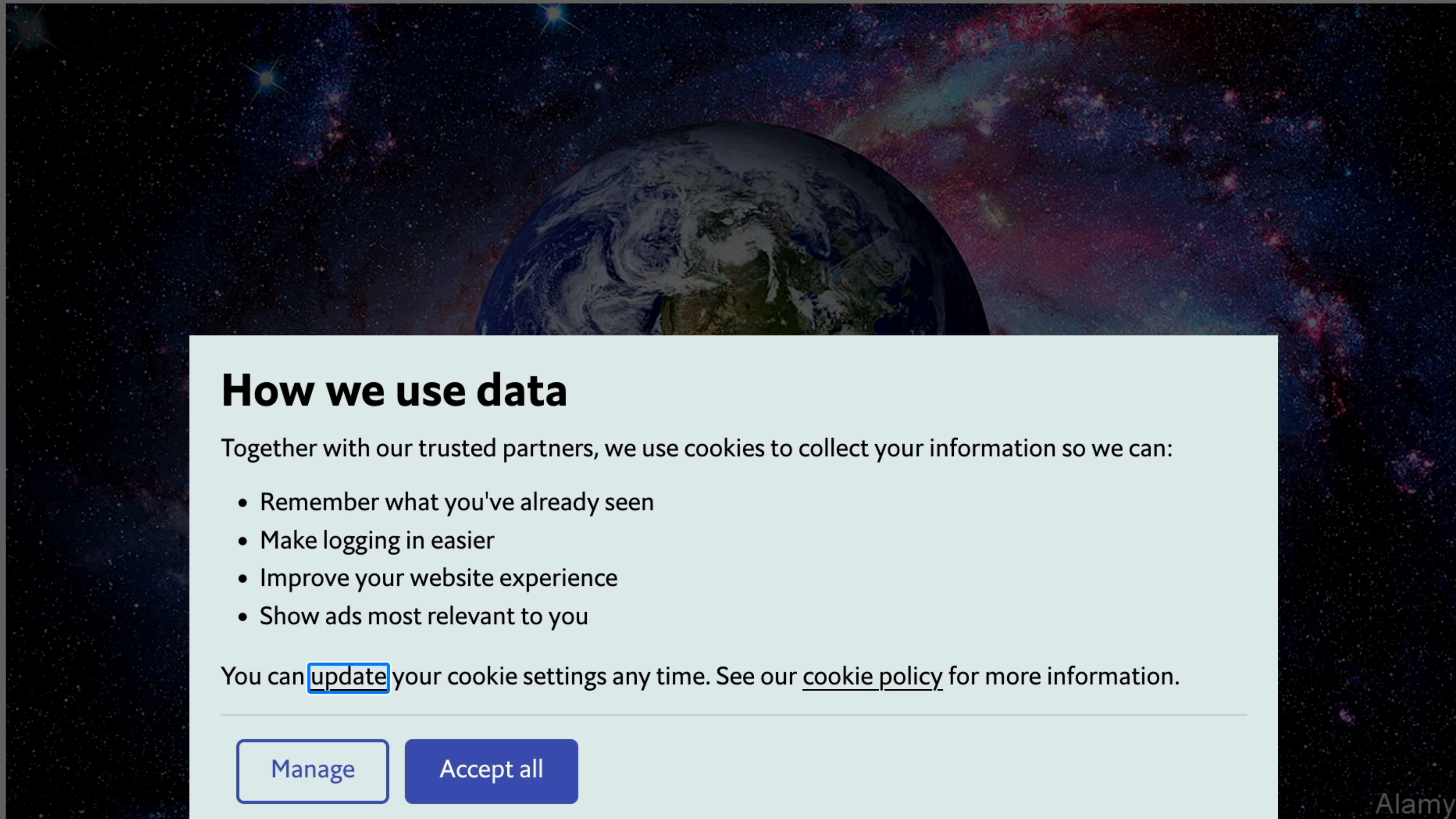


Tech Preview >167,
Safari 17 (fall 2023)



**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

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

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 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

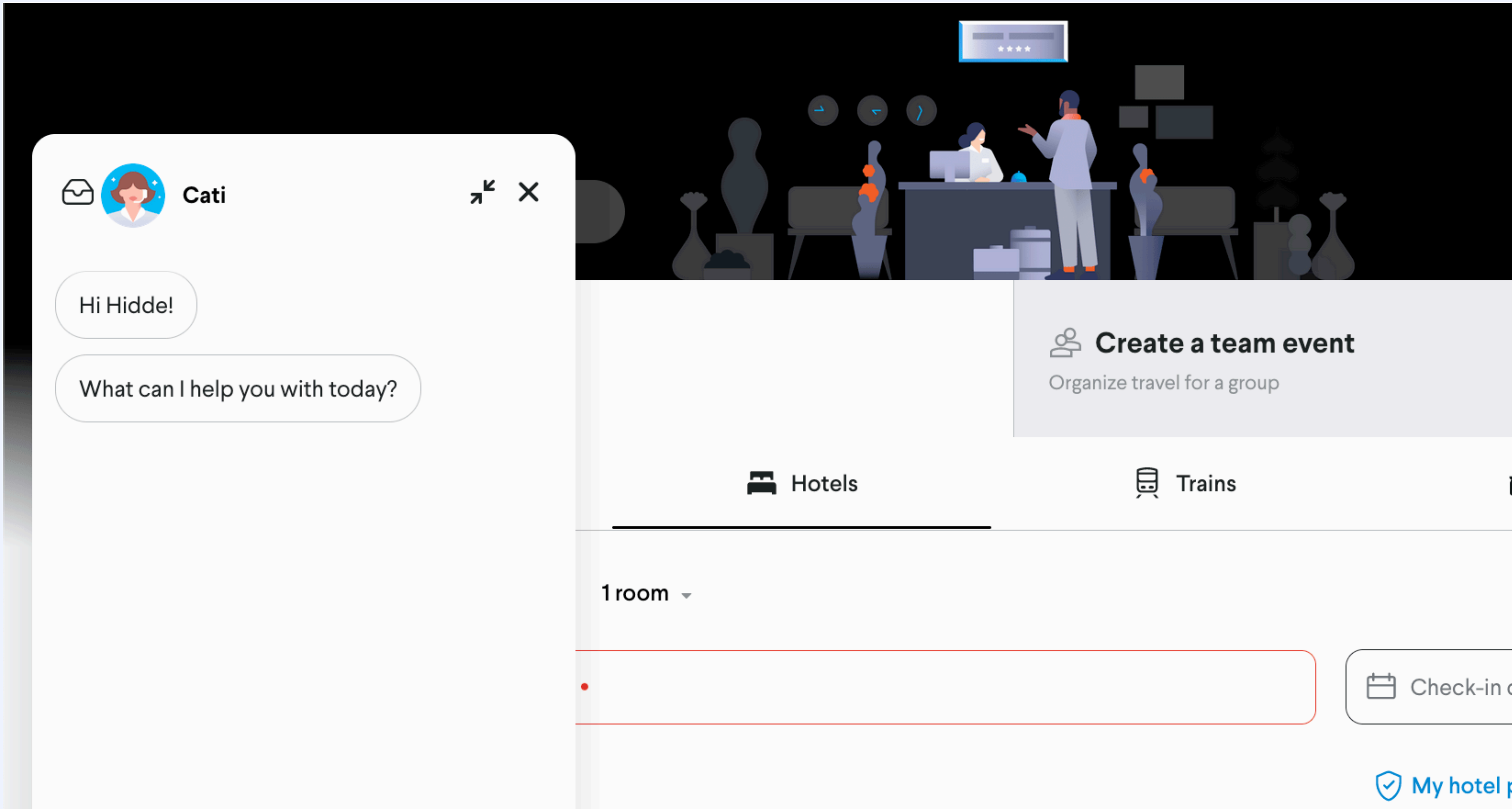
 Download original file

 Copy URL

 Clear field

Alternative text

What's on this picture?



A modal element is a drastic measure, as 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



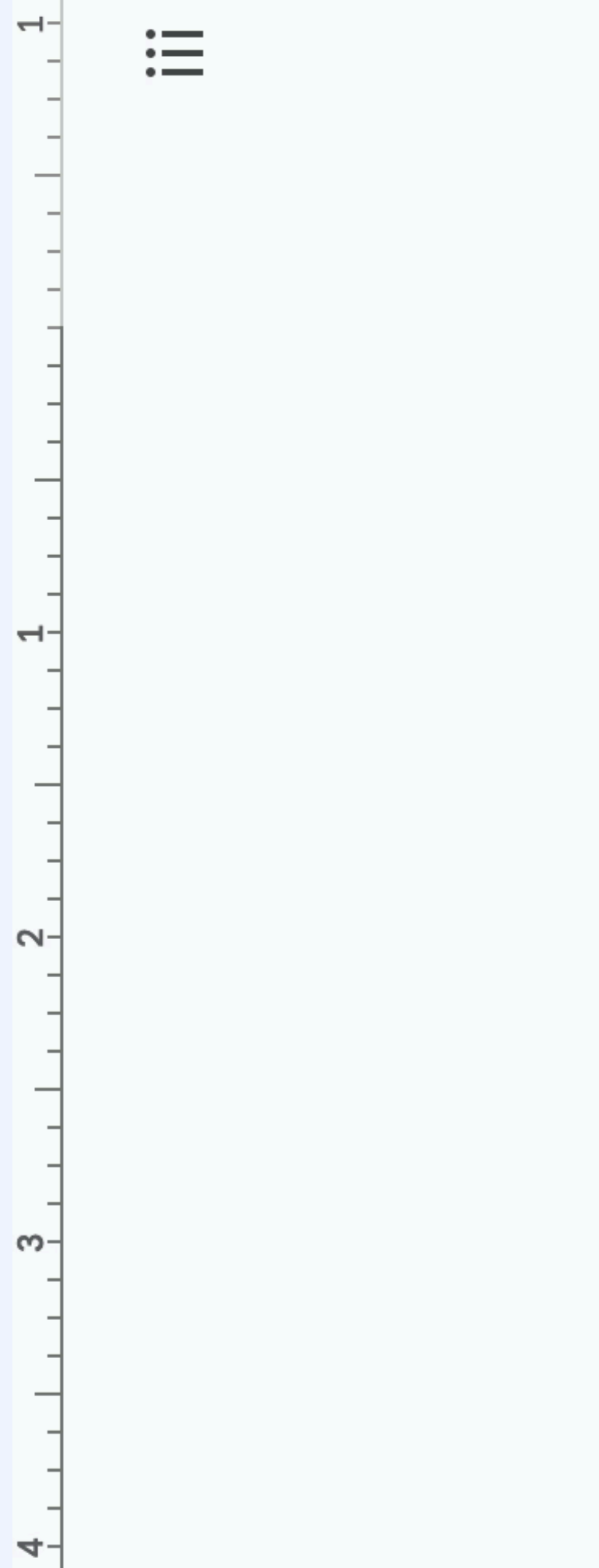
File Edit View Insert Format Tools Extensions Help



Share



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



Light dismiss|



LIGHT

VS

**EXPLICIT
DISMISS**

Does the element automatically hide on click outside, scroll, etc?

Or does user or script close it?

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.

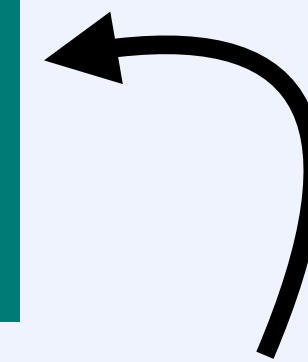
The element that is first in the DOM is painted first, each subsequent element on top of the previous and

```
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

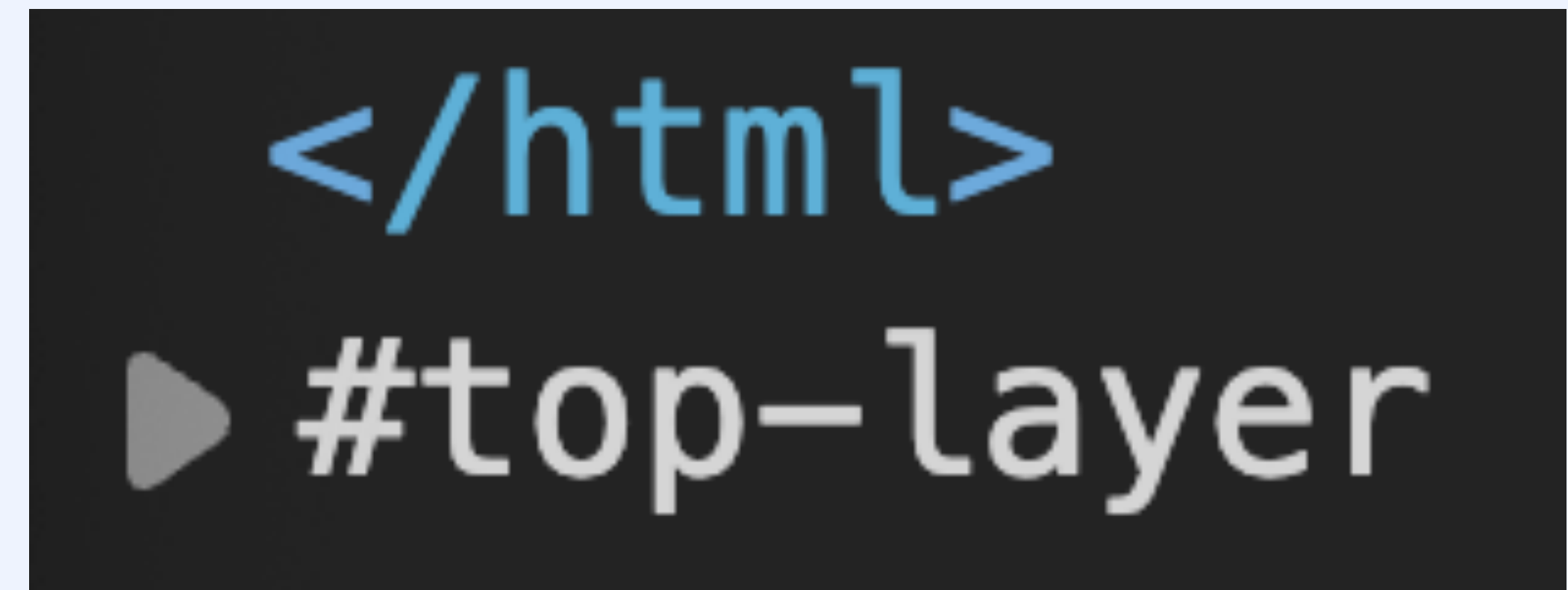
<https://drafts.csswg.org/css-position-4/#top-layer>

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

<https://drafts.csswg.org/css-position-4/#top-layer>



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

<https://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

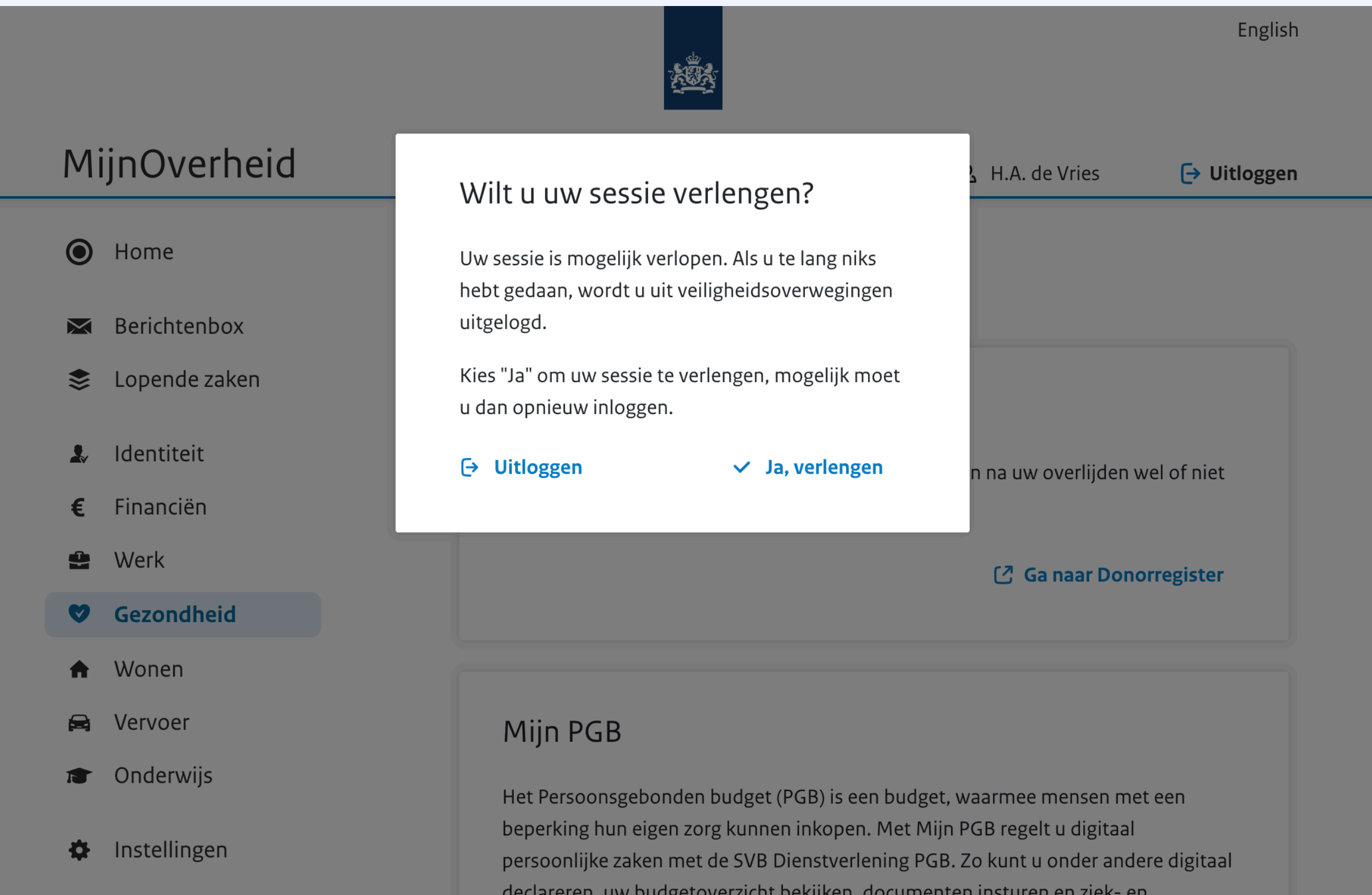
top layer, top layer, top layer, top layer, top layer, top layer

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**

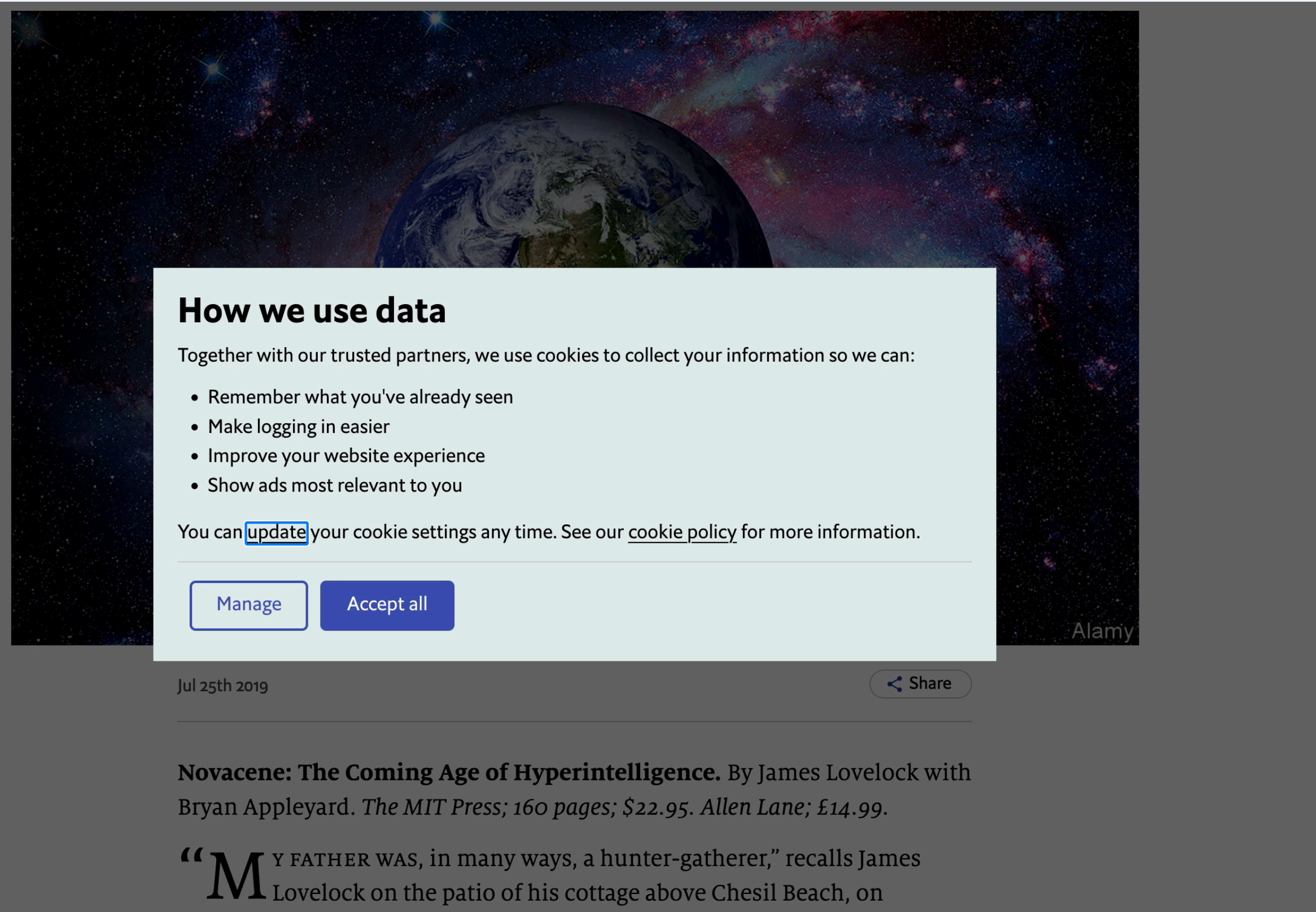
LIGHT DISMISS VS **EXPLICIT DISMISS**

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()`

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

SEMANTICS

“What is this thing?”

“What is this thing
on the page?”

```
<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

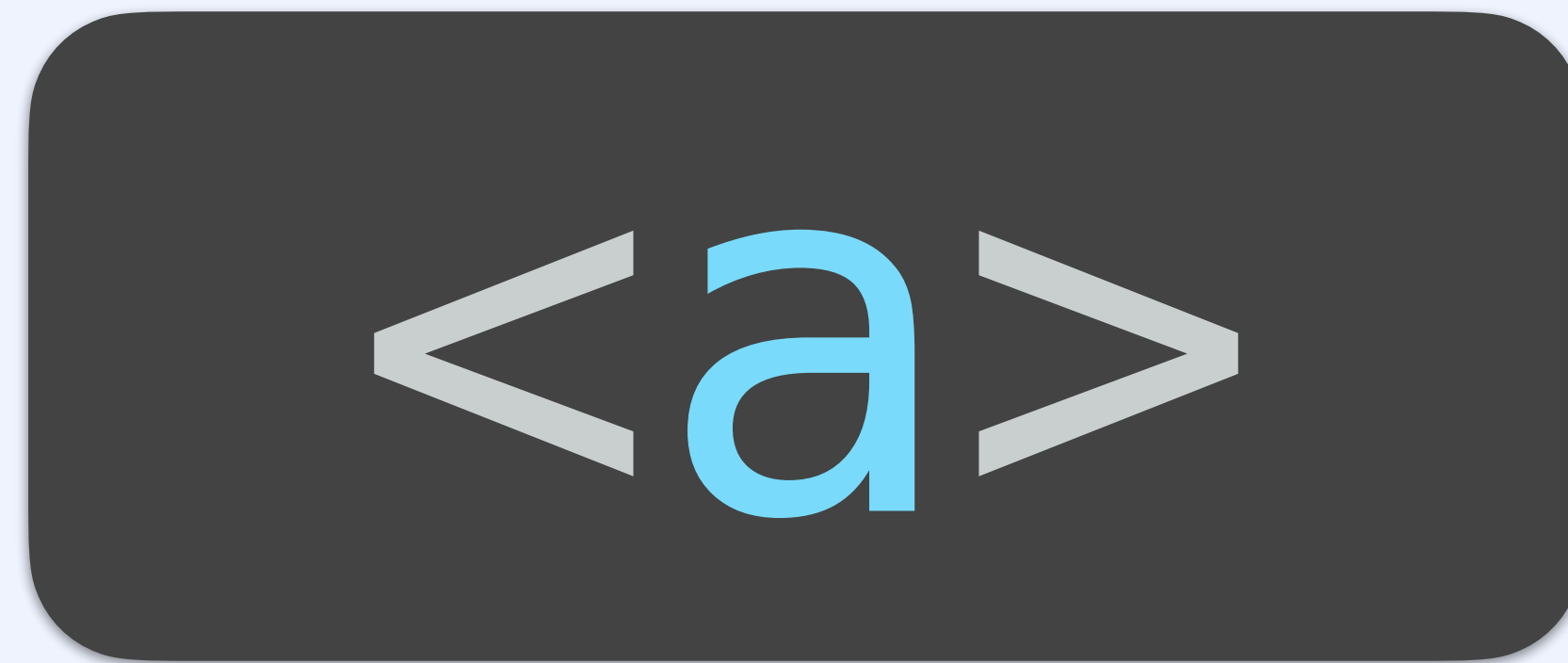
Transactions per year
1.56bn
total for [94 services out of 114](#)

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

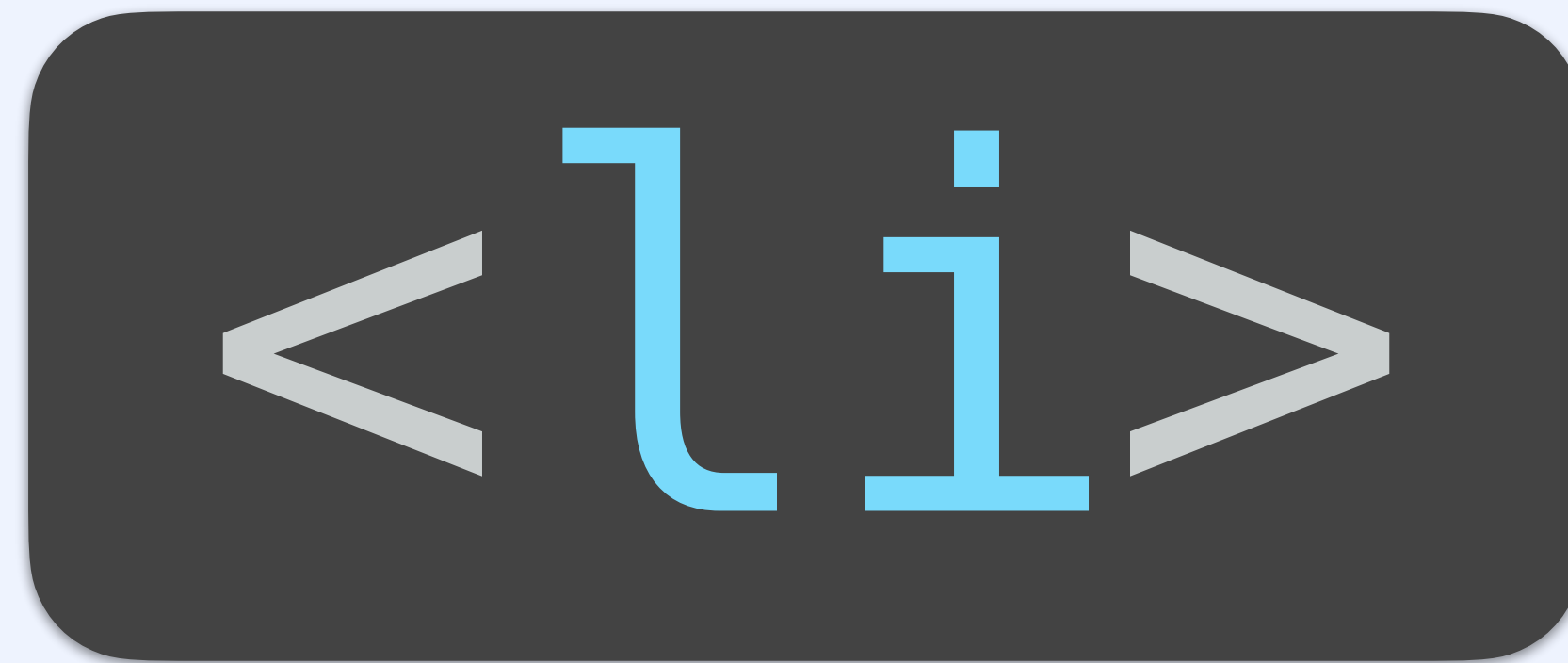
Headings

- 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

<dialog>

dialog

```
<div>
```

[no role]

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

link

```
<div popover>
```

[no role]

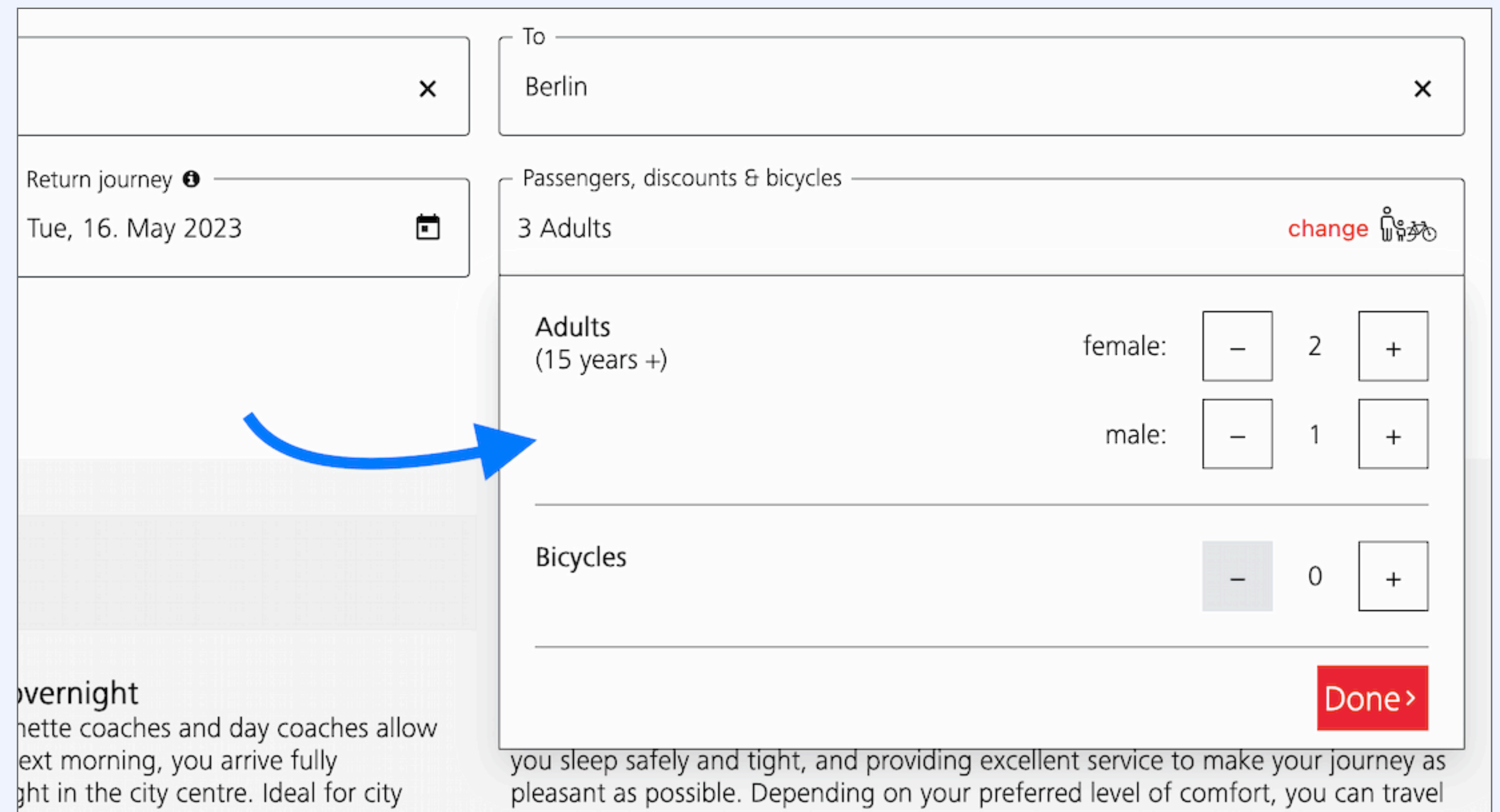
The popover attribute adds
behaviour, not semantics

(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 to Berlin on Tuesday, May 16, 2023. The dialog is titled "Return journey" and includes a close button (x). The main content area is titled "Passengers, discounts & bicycles" and shows "3 Adults" with a "change" link and a person/bicycle icon. Below this, there are sections for "Adults (15 years +)" and "Bicycles". The "Adults" section has two rows: "female:" with a count of 2 and "male:" with a count of 1. Each row has minus and plus buttons to adjust the count. The "Bicycles" section has a count of 0 and minus/plus buttons. A red "Done" button with a right-pointing arrow is at the bottom right. A blue arrow points from the left side of the dialog to the "Adults" section.

Category	Count	Buttons
Adults (15 years +)	3	change icon
female:	2	- 2 +
male:	1	- 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 quantified 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 (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



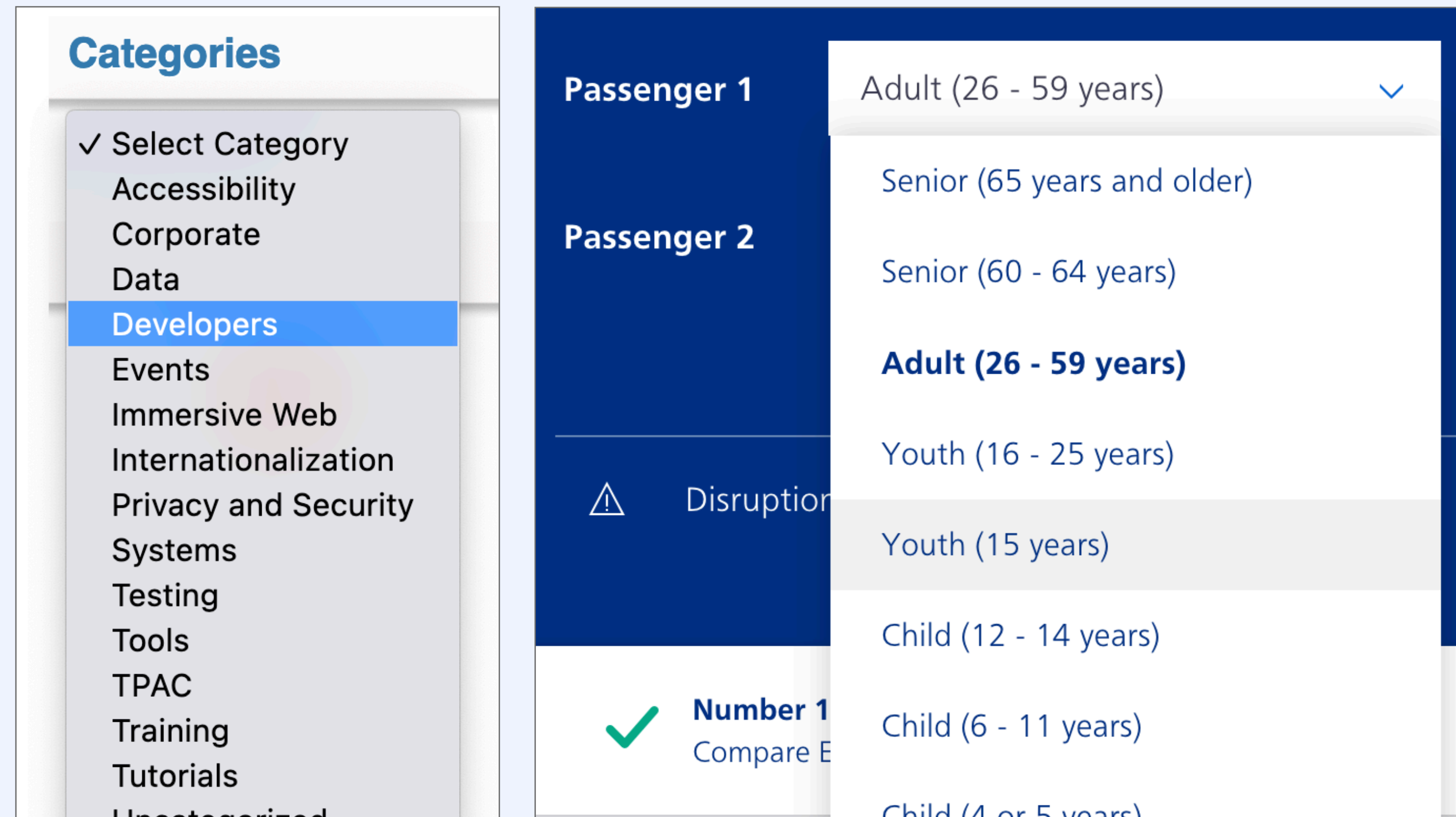
Top destinations



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"

LISTBOX

role="listbox"

Hyde's concerts & books

Manage contents

- Book
- Concert

listbox

Search: je|

Artist + Add filter Clear filters

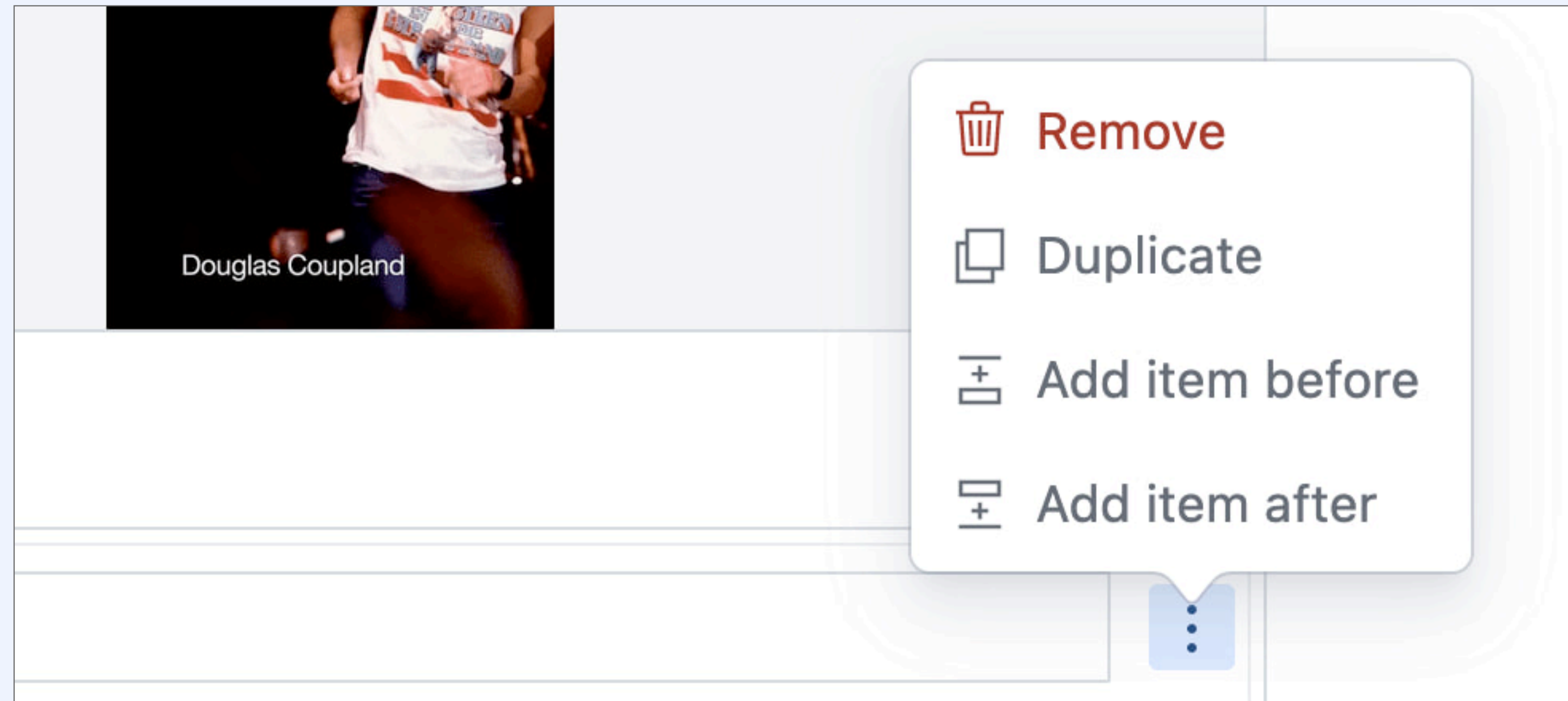
Best match

Jeff Mills	ARTIST
Jeff Neve	ARTIST
De Jeugd van Tegenwoordig	ARTIST
Oscar Jerome	ARTIST

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

MENUS

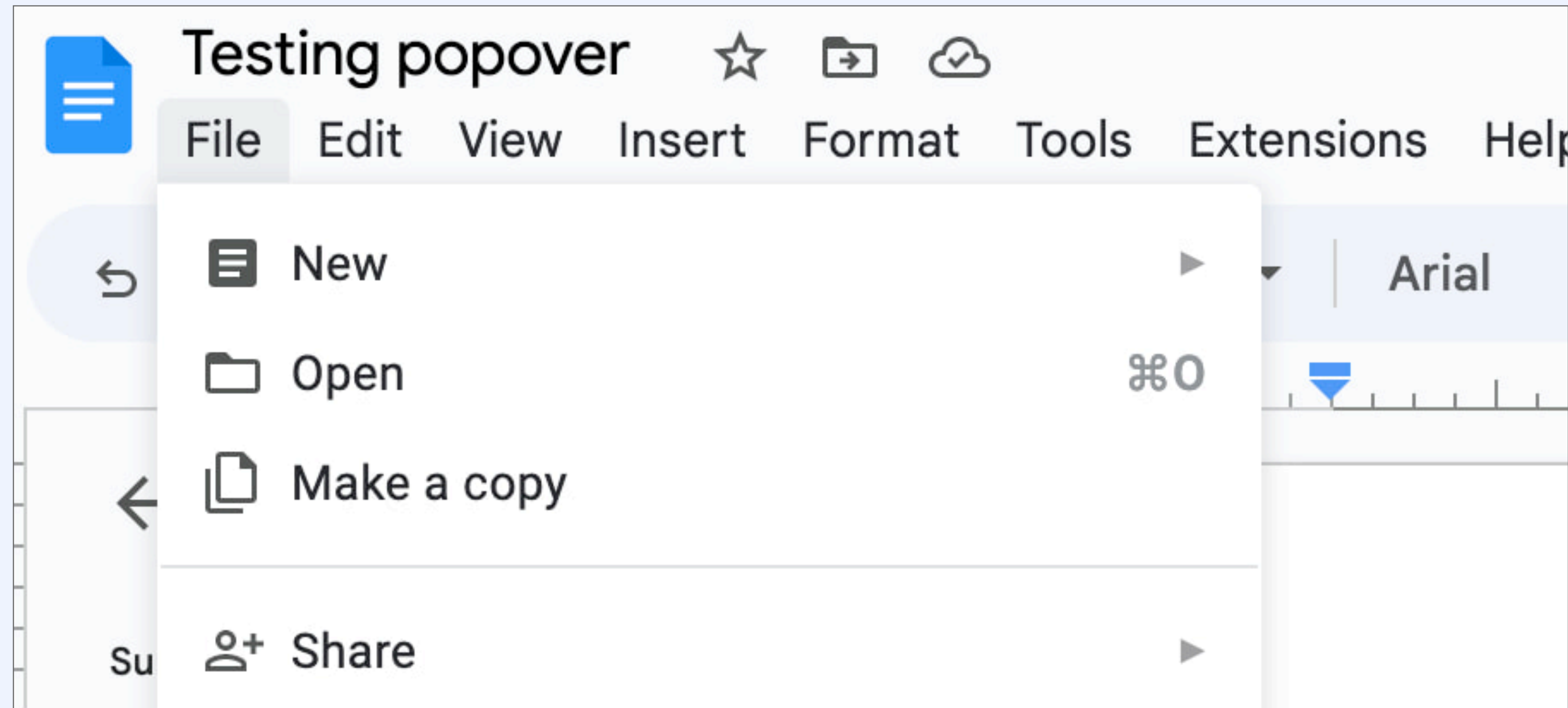
`role="menu"`



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

MENUS

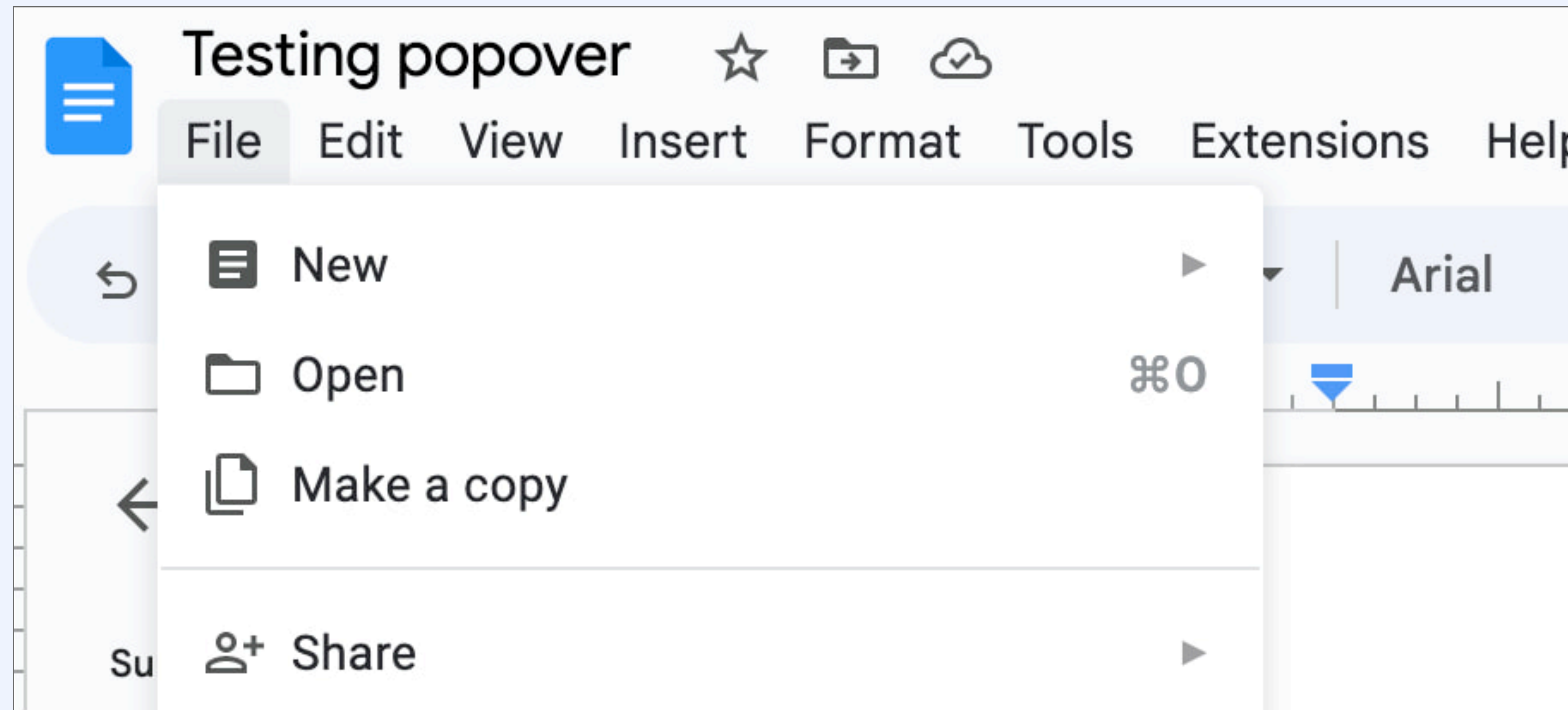
`role="menu"`



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).

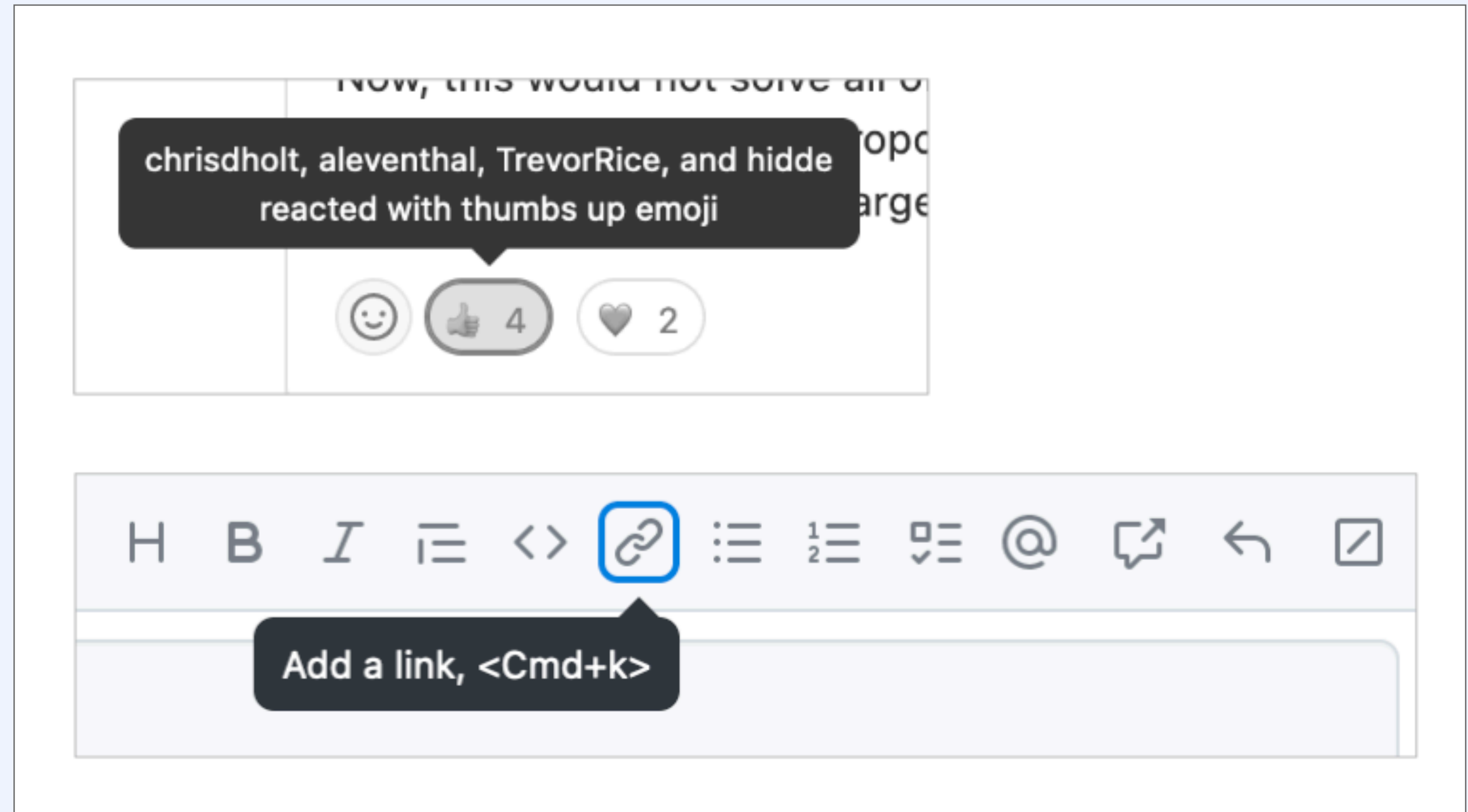
MENUS

`role="menu"`

- not for navigations / meganavigations
- not to be confused with `<menu>`, which has a built-in **list** role
- could complicate things for screenreader users, use sparsely

Plain text suggestions

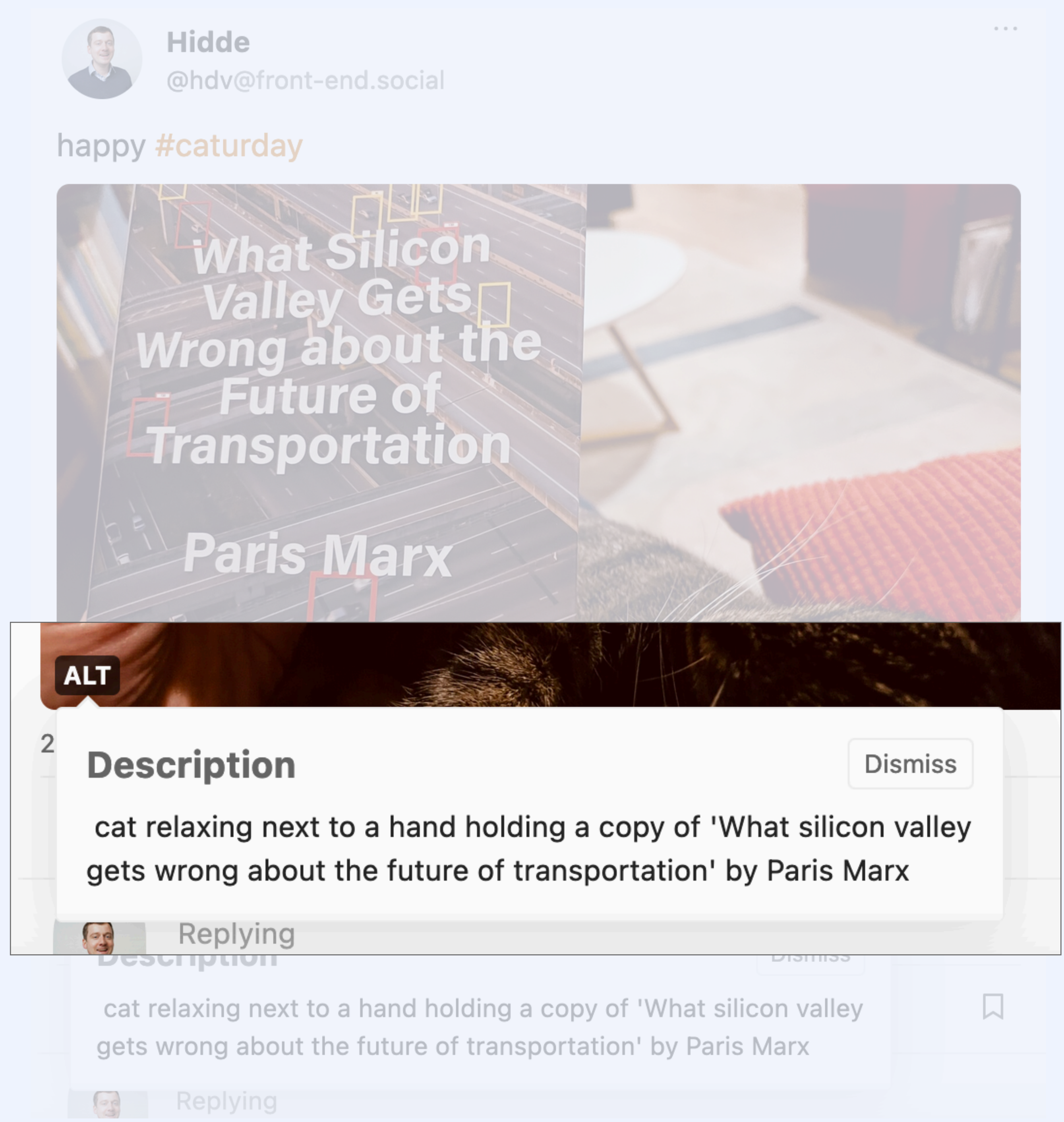
TOOLTIPS
role="tooltip"



TOOLTIPS

`role="dialog"`

More than plain text, maybe better as toggletips



DIALOGS

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

MENUS

`role="menu"`

TOOLTIPS

`role="tooltip"`
`role="dialog"`

SEMANTICS

`<dialog>`

dialog (implicit)

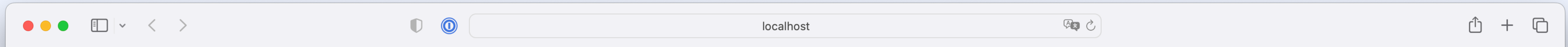
`popover`

it depends. You choose an apt role,
could be **dialog**, **listbox**, **menu** or **tooltip**

POSITIONING

`<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
★★★★★

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



(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
★★★★★

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
★★★★★
on 2023-04-15 at Het Klooster

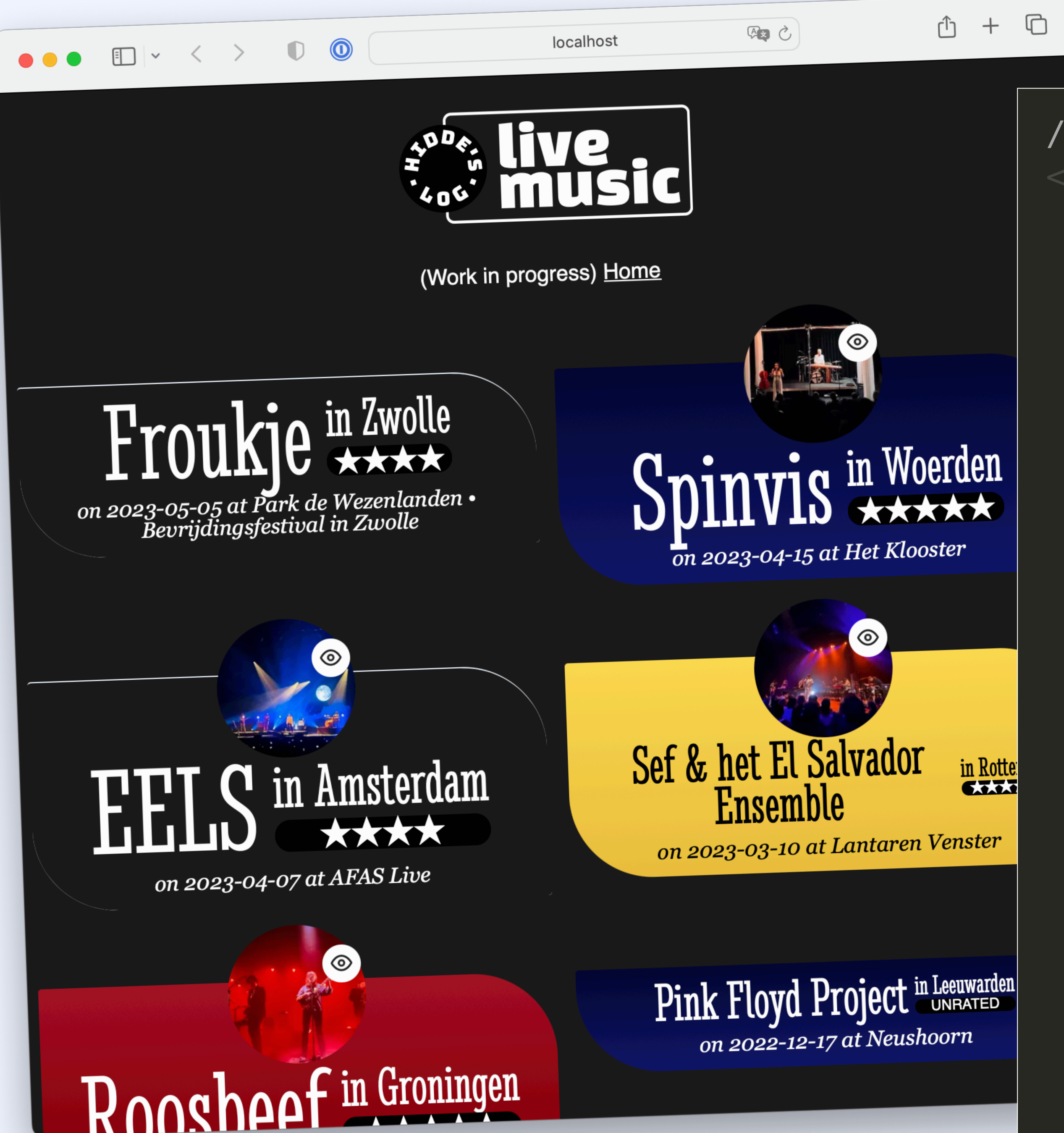
EELS in Amsterdam
★★★★★
on 2023-04-07 at AFAS Live

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

Roosbeef in Groningen
★★★★★

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



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
★★★★

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
★★★★★

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

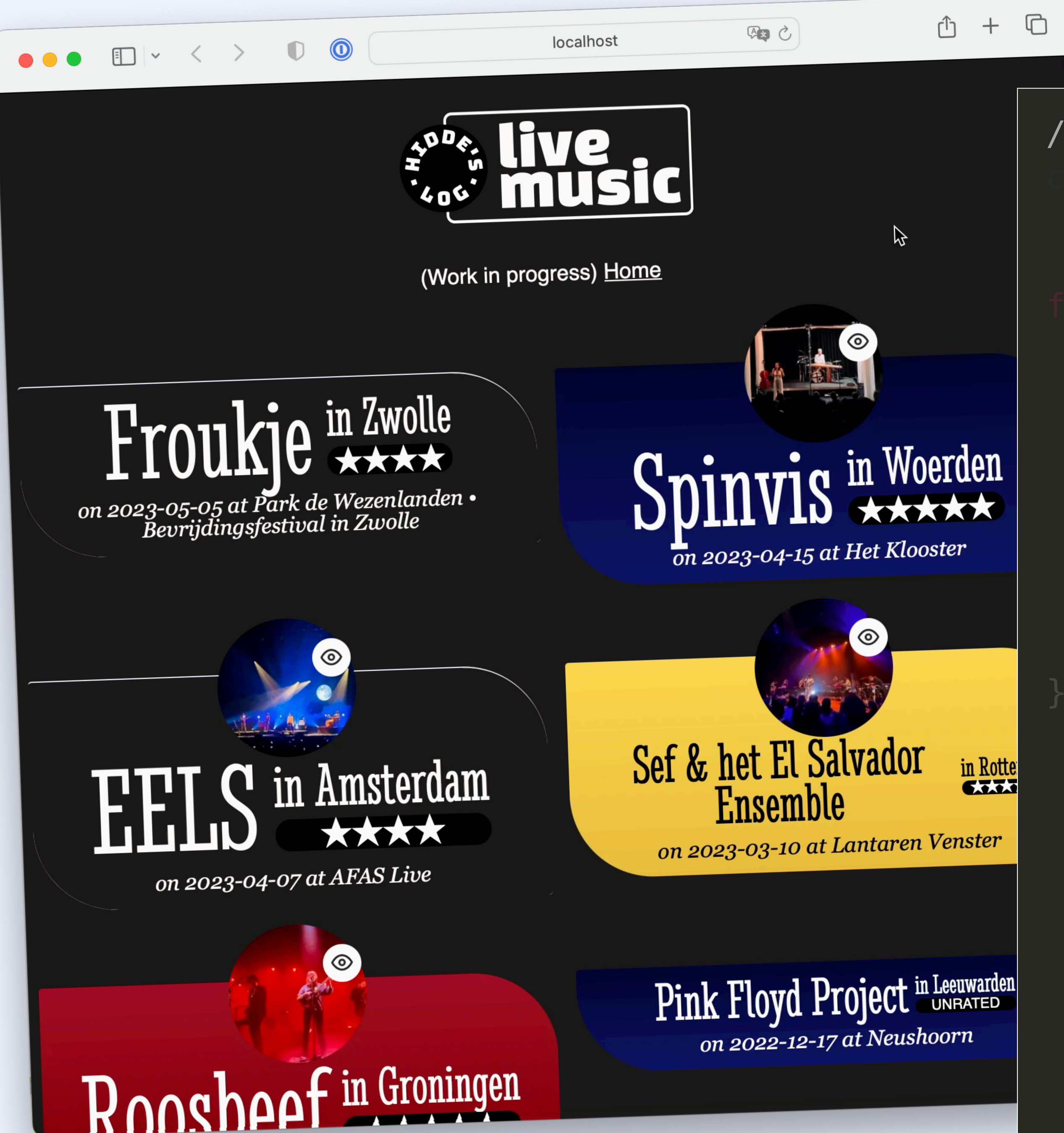
Pink Floyd Project in Leeuwarden
UNRATED

on 2022-12-17 at Neushoorn

Roosbeef in Groningen
★★★★★

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

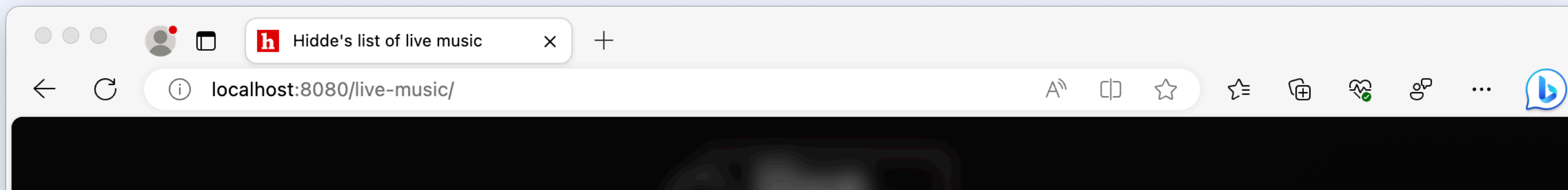
for (let i = 0; i < dialogOpeners.length; i++) {
  const opener = dialogOpeners[i];
  const correspondingDialog =
    document.querySelector(
      `#${opener.getAttribute('data-dialogtarget')}`);
}
```



```
// 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

```
<div style="padding: 1em;">
  <button type="button" data-dialogclose="dialog-2022-02-25-1410" aria-label="Close">... </button>
  <h1> Robert Glasper in Menlo Park </h1>
  
</div>
```

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

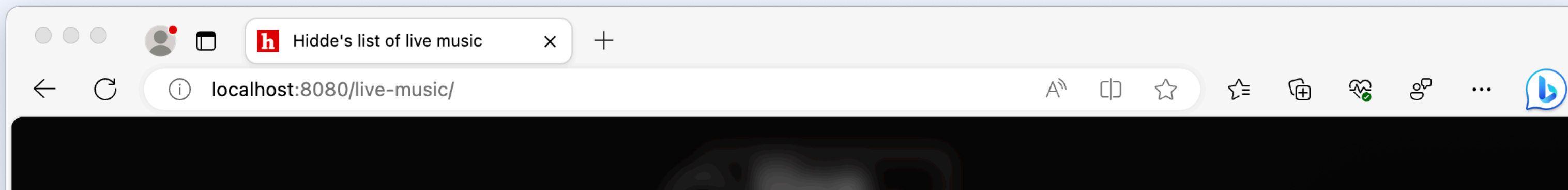
Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility

Filter :hov .cls +

```
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

```
<div style="padding: 1em;">  
  <button type="button" data-dialogclose="dialog-2022-02-25-1410" aria-label="Close">... </button>  
  <h1> Robert G  
    
  ::backdrop  
</dialog>  
</li>  
<li class="concert  
<li class="concert  
html body ol.conce
```

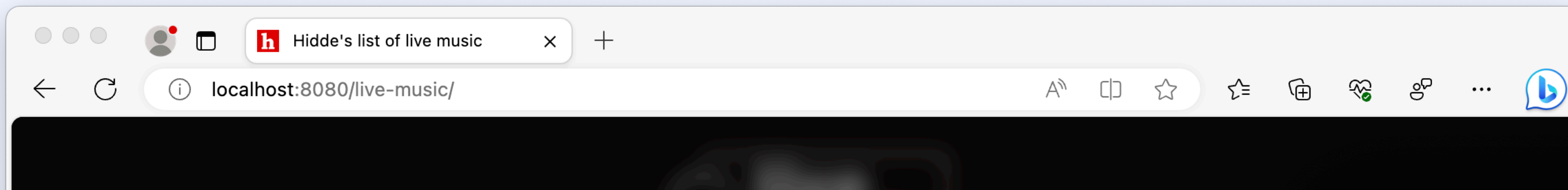
Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility

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/

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>
      
    ::backdrop == $0
  </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

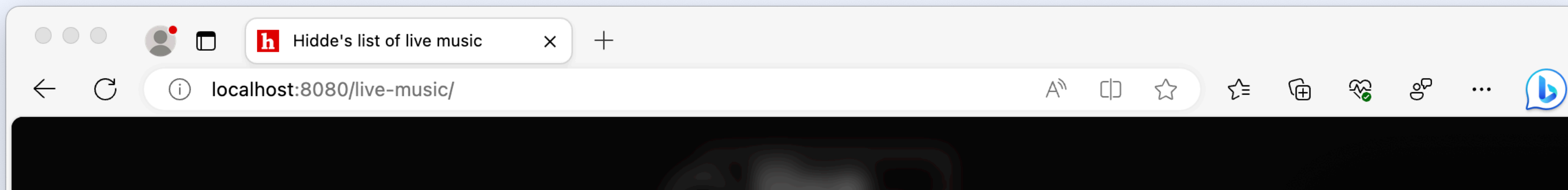
Accessibility

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

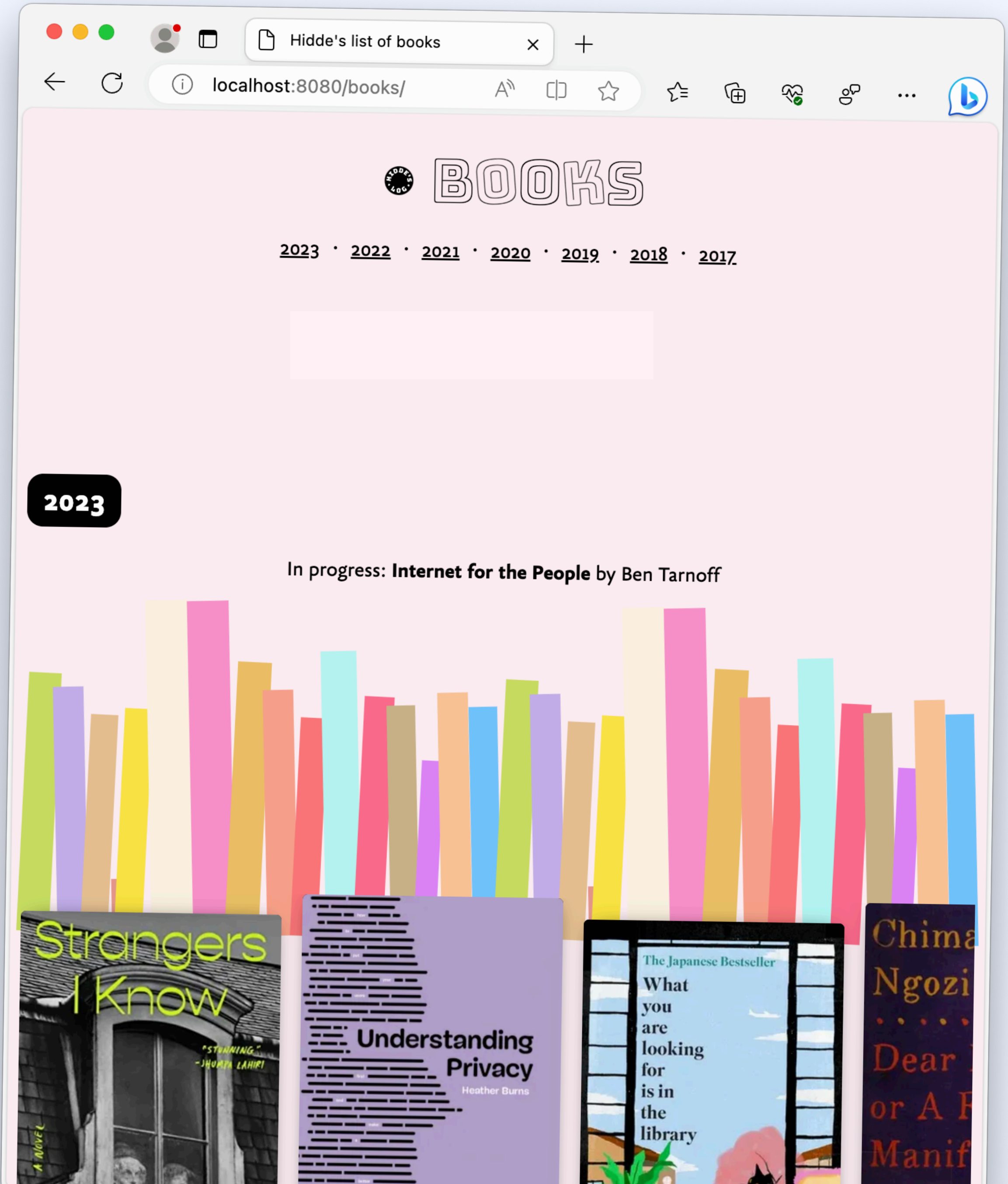
```
dialog::backdrop {
  background: ▶ rgba(0,0,0,0.6);
  backdrop-filter: blur(.5em);
  overflow: ▶ hidden;
}
```

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

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

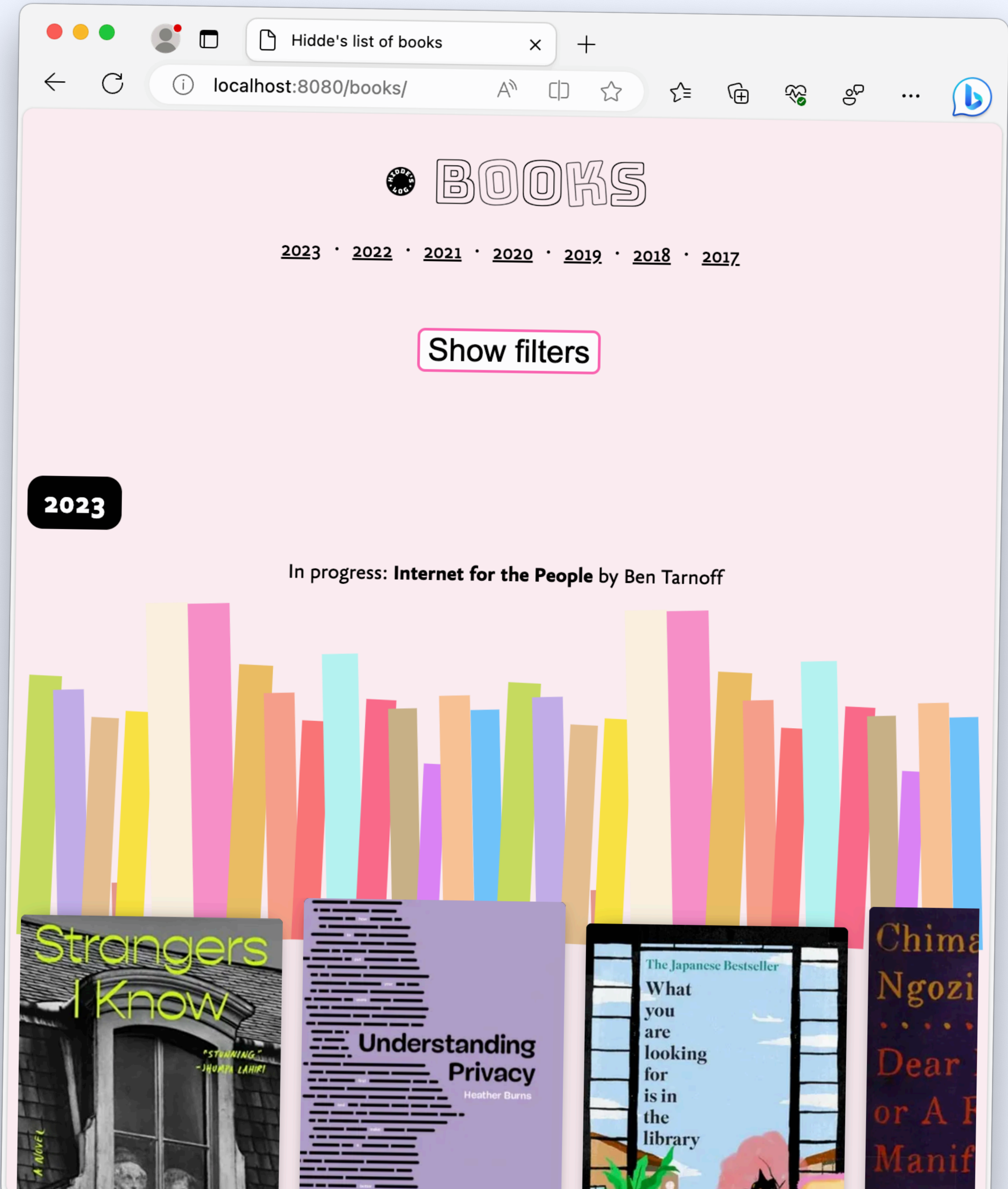
Both are *centered*
by default

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



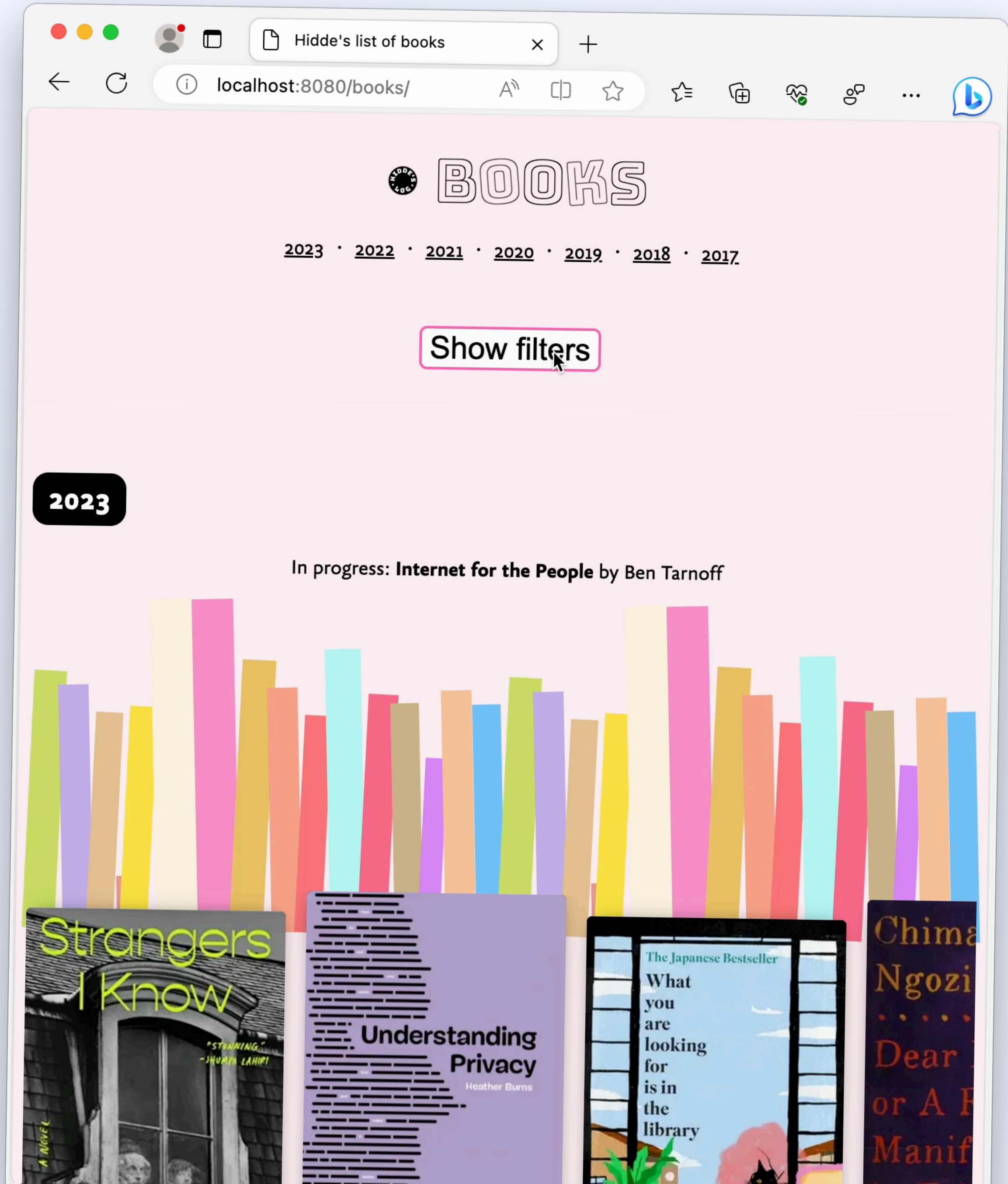
```
// book-list.njk
...
<button type="button" popovertarget="filters">
  Toggle filters
</button>

<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>
...
```



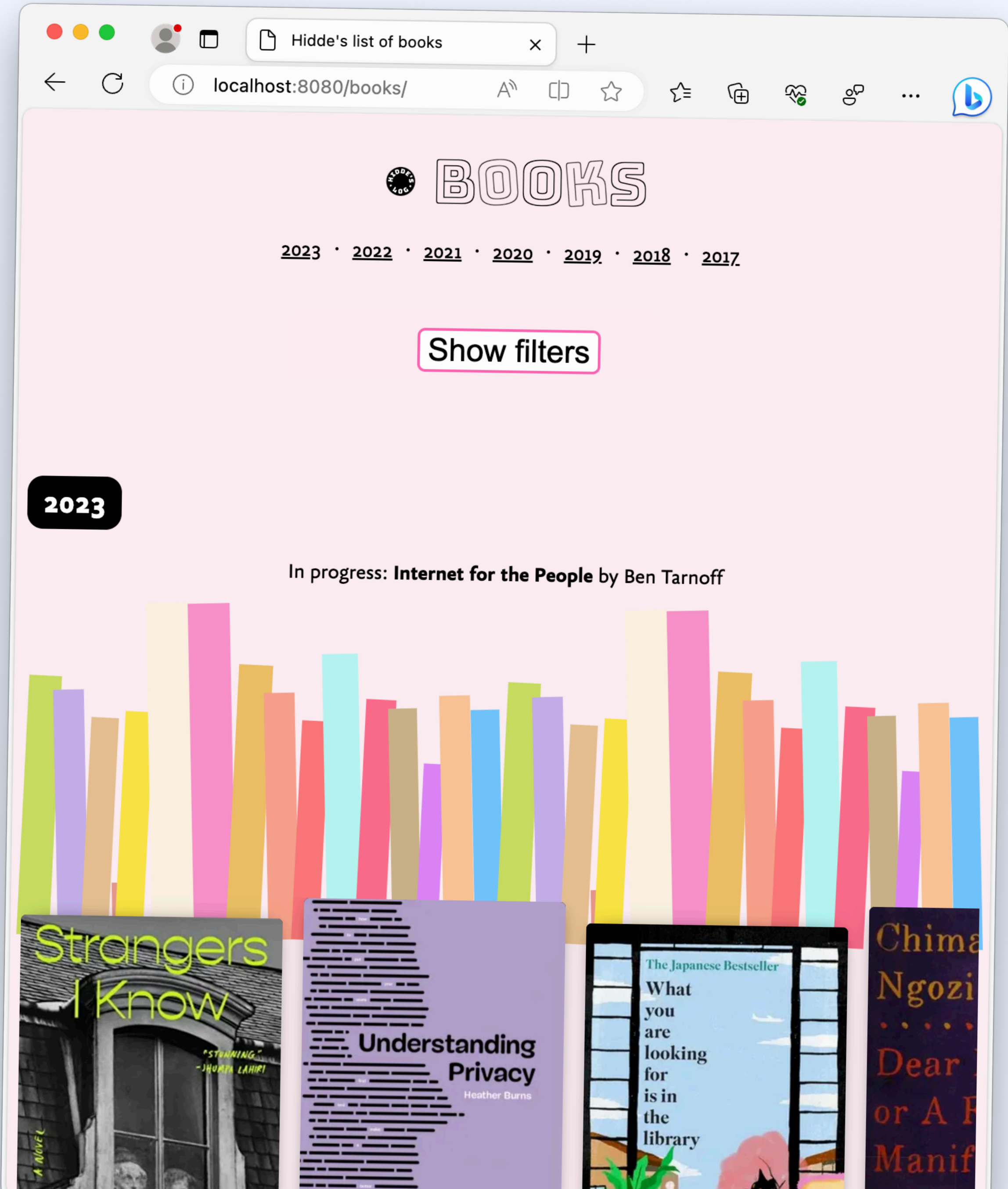
```
// book-list.njk
...
<button type="button" popovertarget="filters">
  Toggle filters
</button>

<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>
...
```



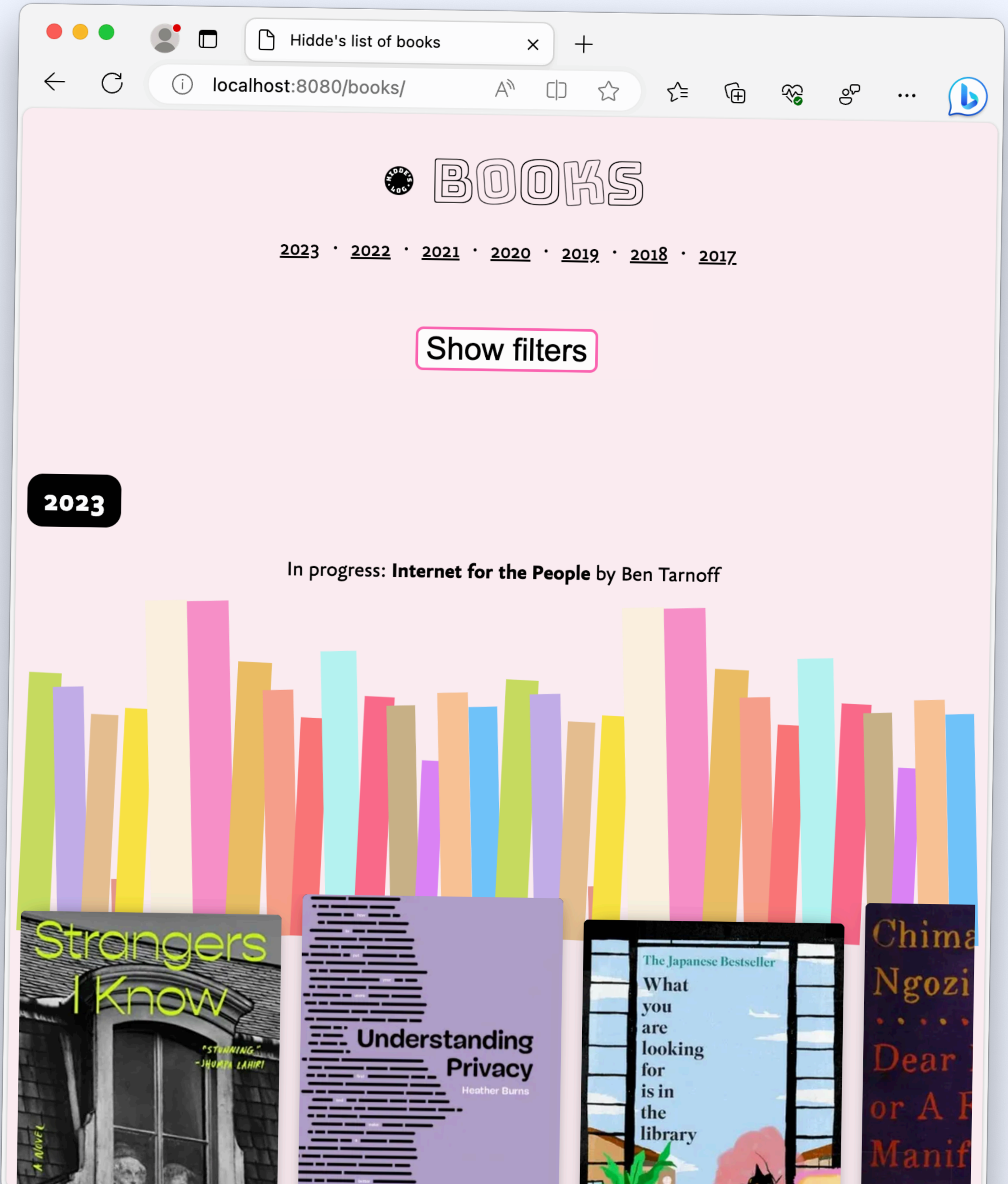
```
// book-list.njk
...
<button type="button" popovertarget="filters">
  Show filters
</button>

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



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

html body div div#filters

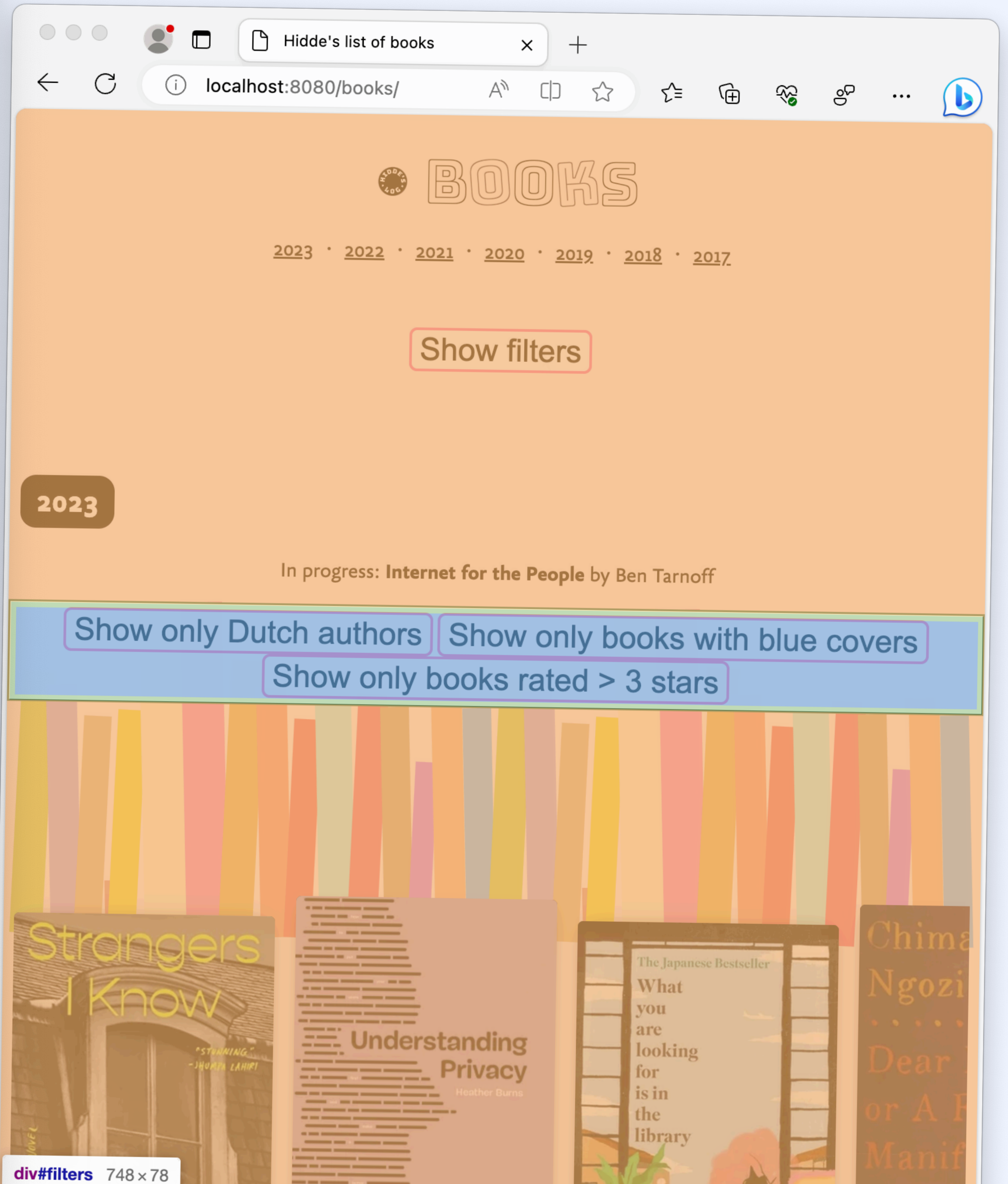
Styles Computed Layout Event Listeners DOM Breakpoints
Filter :hov .cls



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)

```
// 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]');

</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) {

  });
</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')}"]`);

  });
</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)

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

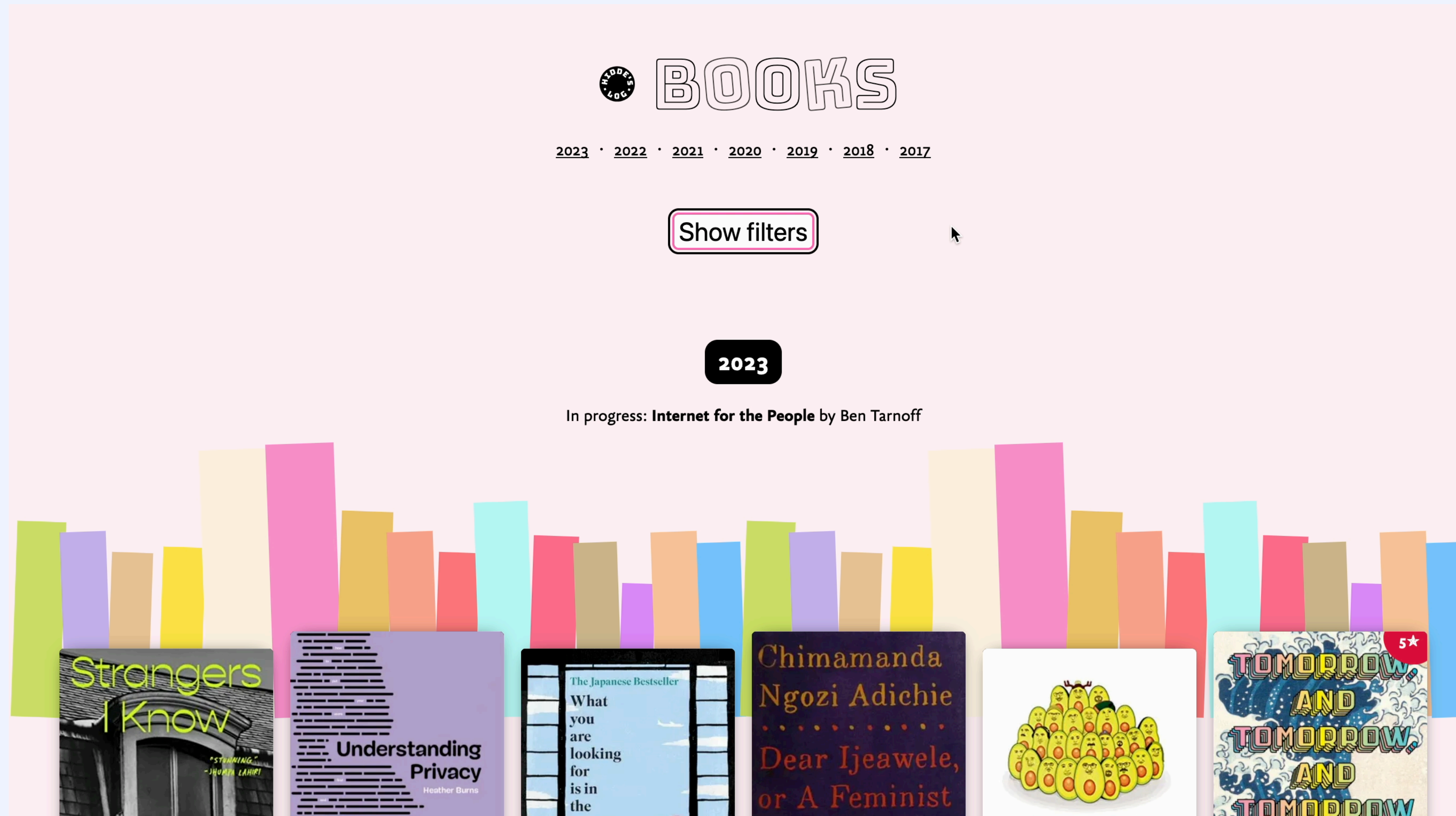
  const popover = document.querySelector('[popover]');

  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>
```

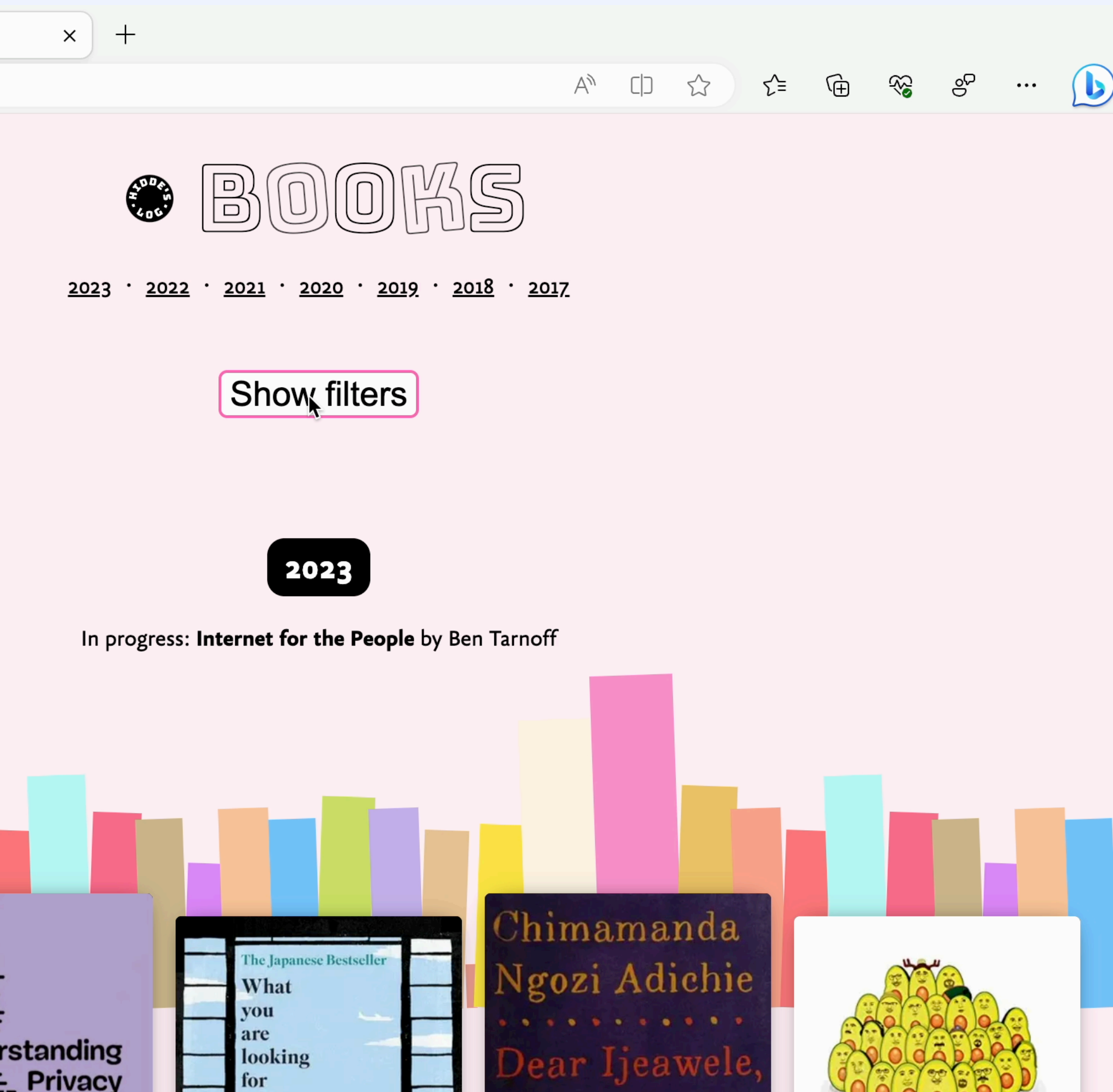

POPOVER POSITIONING

Option 1: calculate (yourself or with a library)



POPOVER POSITIONING

Option 1: calculate (yourself or with a library)

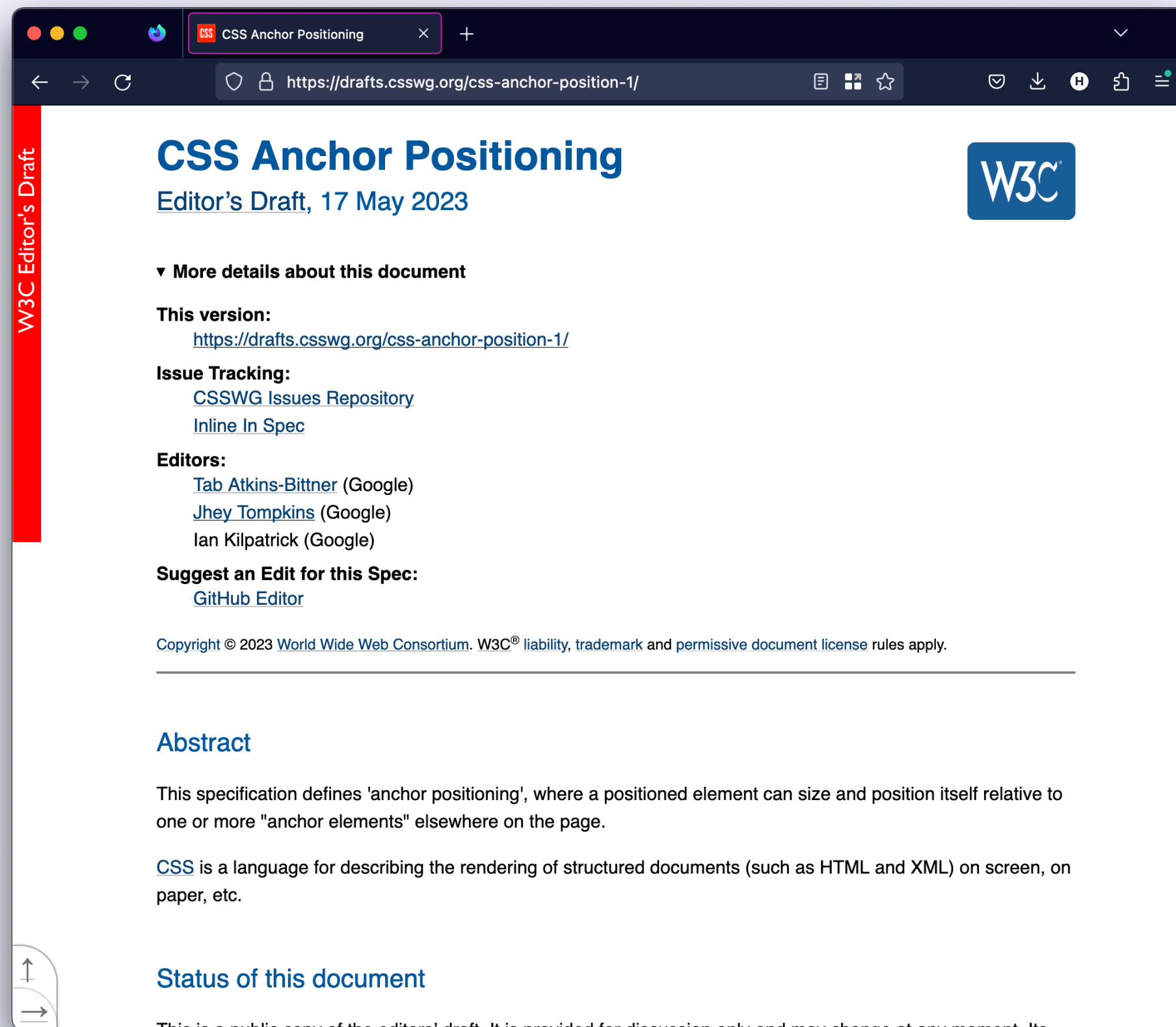


```
DevTools - localhost:8080/books/
Elements
<div popover role="menu" id="filters" style
  <button type="button">Show only Dutch auth
  <button type="button">Show only books with
  <button type="button">Show only books rate
html body div div#filters
Styles Computed Layout Event Listeners
Filter :hov .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/

POSITIONING

modal `<dialog>`

Centered

non-modal `<dialog>`

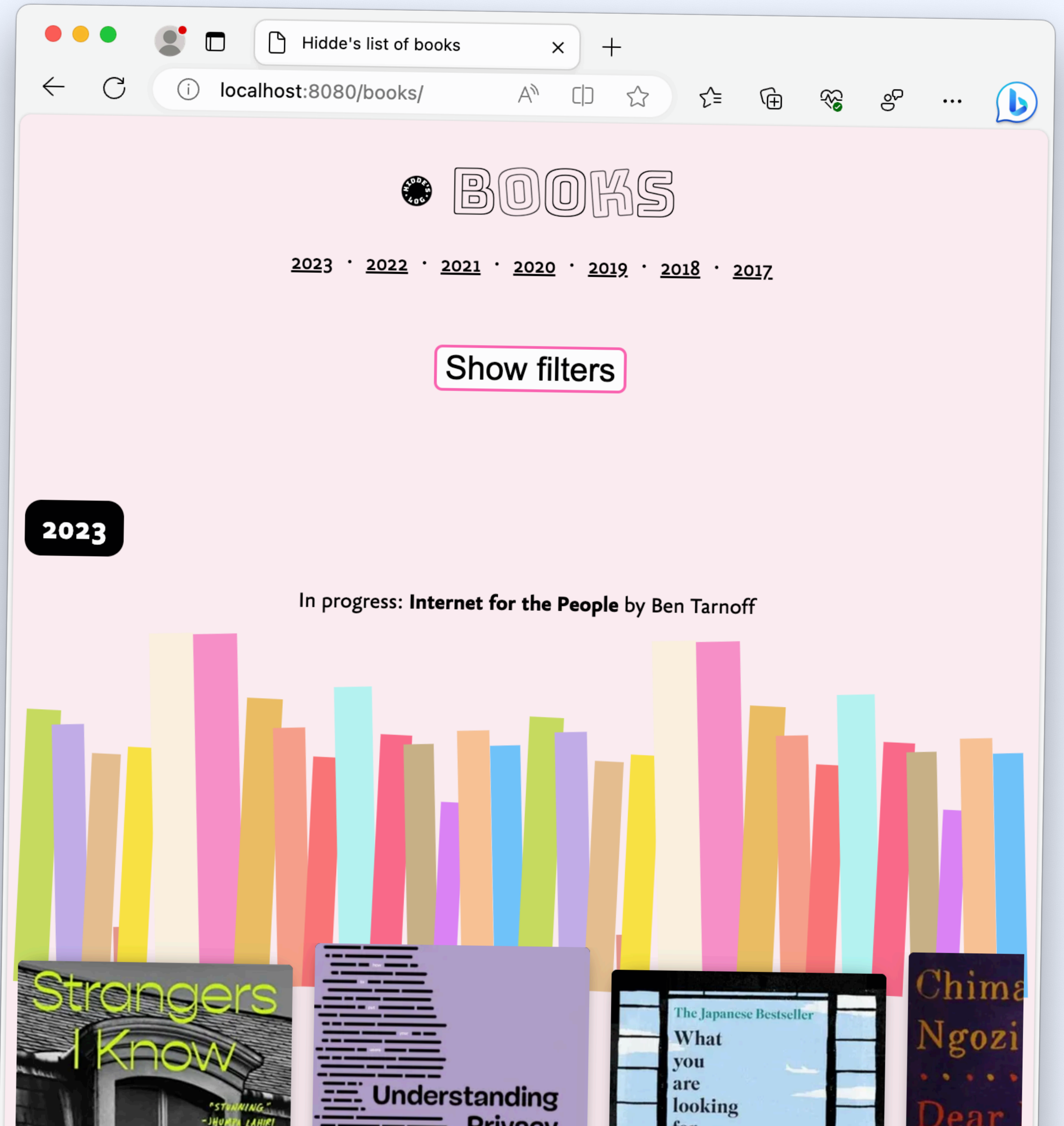
In page flow. Anchor with script now, later with anchor positioning

popover

Centered. Anchor with script now, later with anchor positioning

<DIALOG> ON POPOVER

What if my session
timed out?



BOOKS

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

Show filters

2023

In progress: **Internet for the People** by Ben Tarnoff

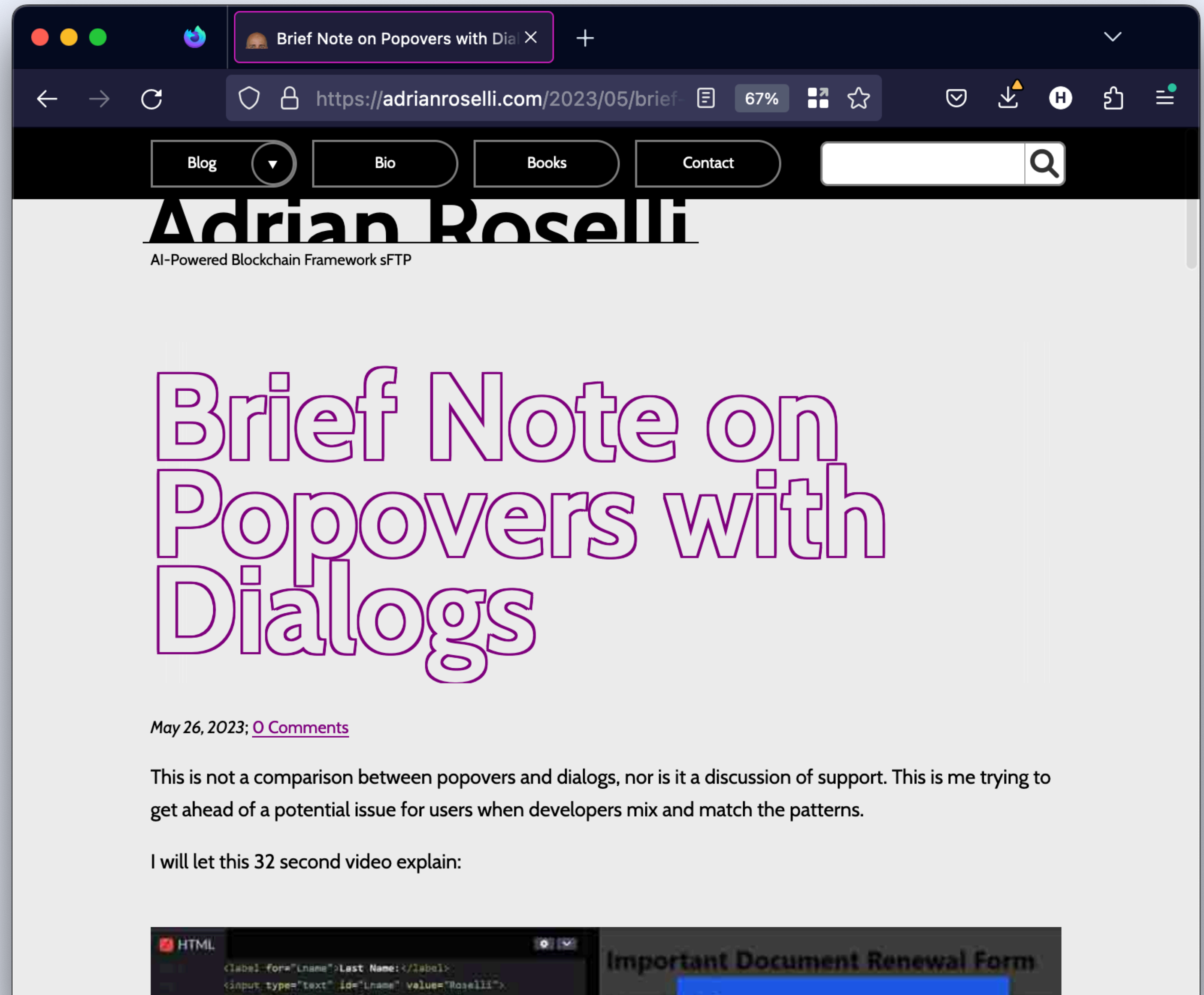


```
<!DOCTYPE html> == $0
<html lang="en">
  <head> ... </head>
  <body>
    <header aria-label="main"> ... </header>
    <nav aria-label="list of all years"> ... </nav>
    <div style="text-align: center;"> ... </div>
    <section class="year" aria-labelledby="2023"> ... </section>
    <section class="year" aria-labelledby="2022"> ... </section>
    <section class="year" aria-labelledby="2021"> ... </section>
    <section class="year" aria-labelledby="2020"> ... </section>
    <section class="year" aria-labelledby="2019"> ... </section>
    <section class="year" aria-labelledby="2018"> ... </section>
    <section class="year" aria-labelledby="2017"> ... </section>
    <script type="module"> ... </script>
  </body>
</html>
```

adrianroselli.com/2023/05/brief-note-on-popovers-with-dialogs.html

BRIEF NOTE ON POPOVERS WITH DIALOGS

Suggests only using
popover if also
using modal
<dialog>, so that
both are in top layer



WRAPPING UP

<dialog>

UI considerations

HTML element with
support and (as of recently) good
accessibility support

Semantics

Positioning

popover

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

**THANK
YOU!**

Questions

@hdv on most platforms

Slides/resources

talks.hiddedevries.nl