

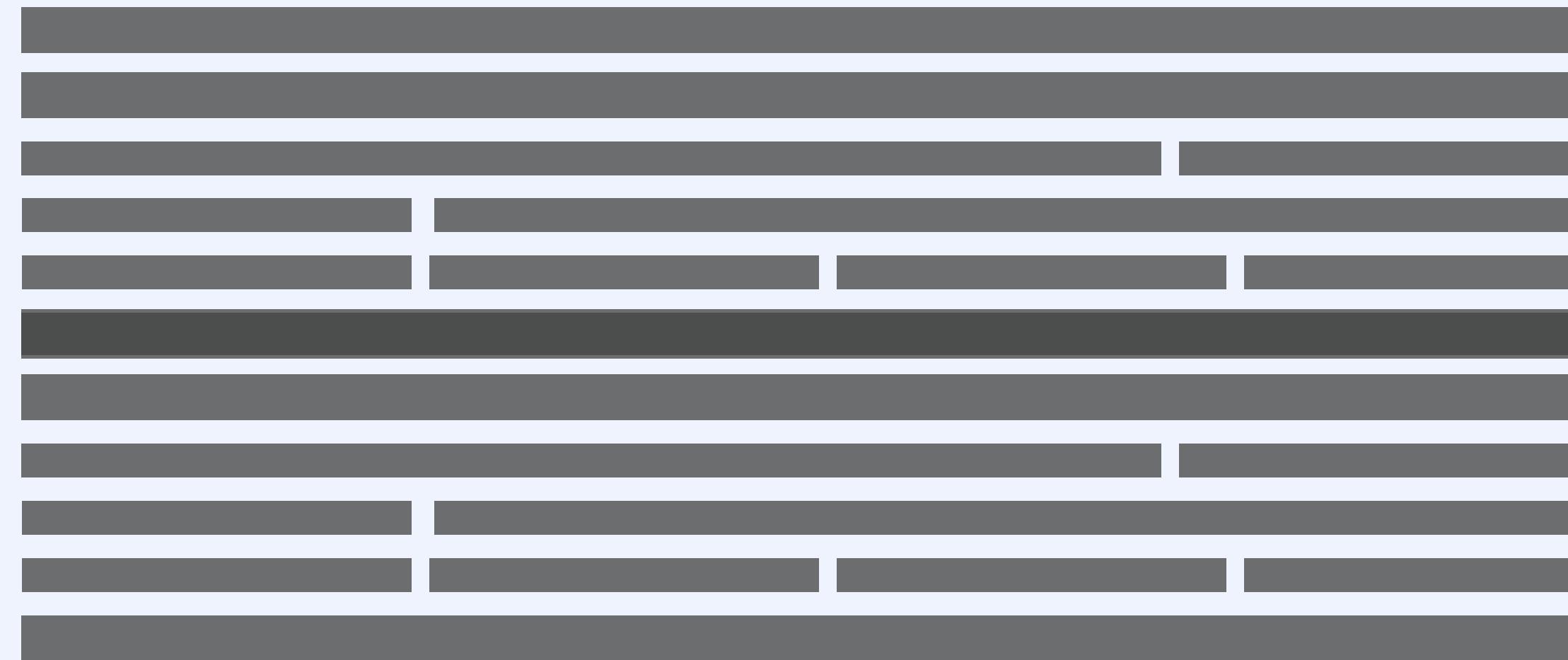
# **MODAL MISCHIEF & DIALOG DILEMMAS**

Hidde de Vries

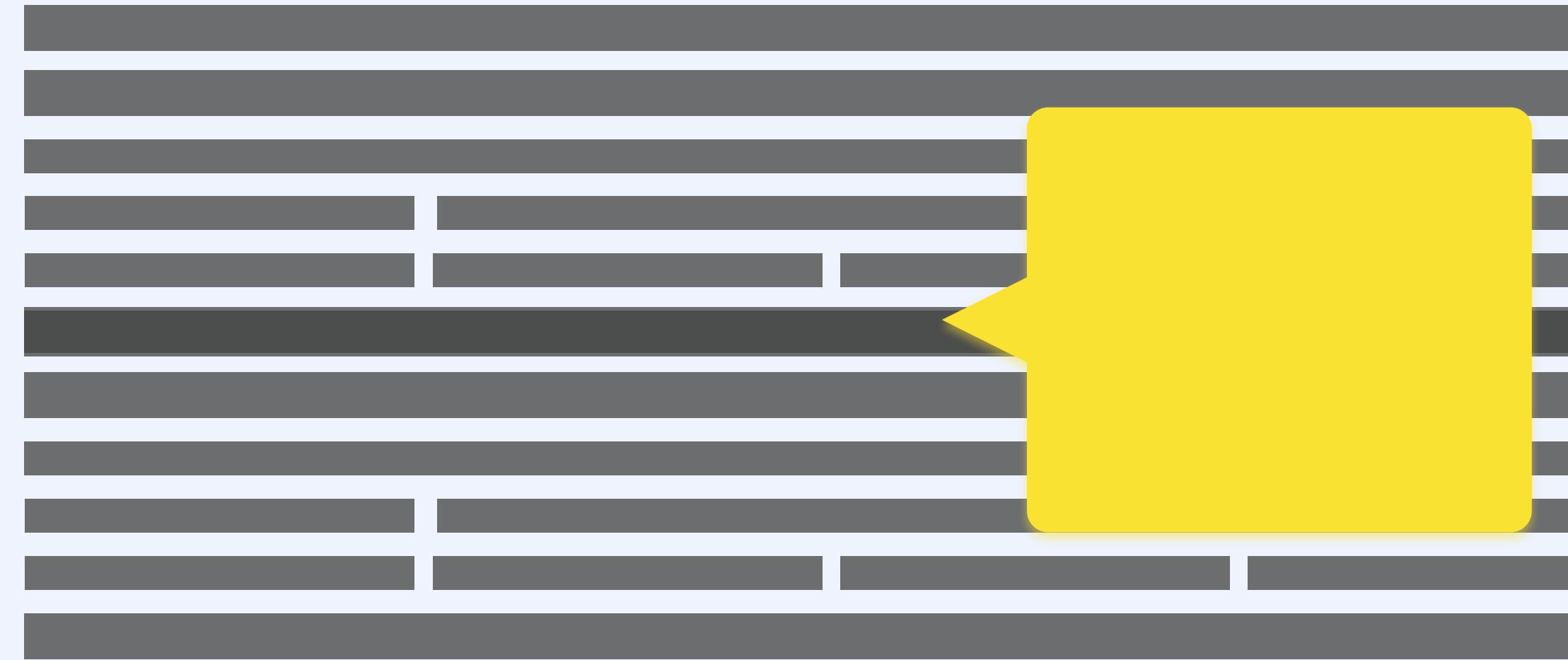
8 June 2023

CSS Day, Amsterdam

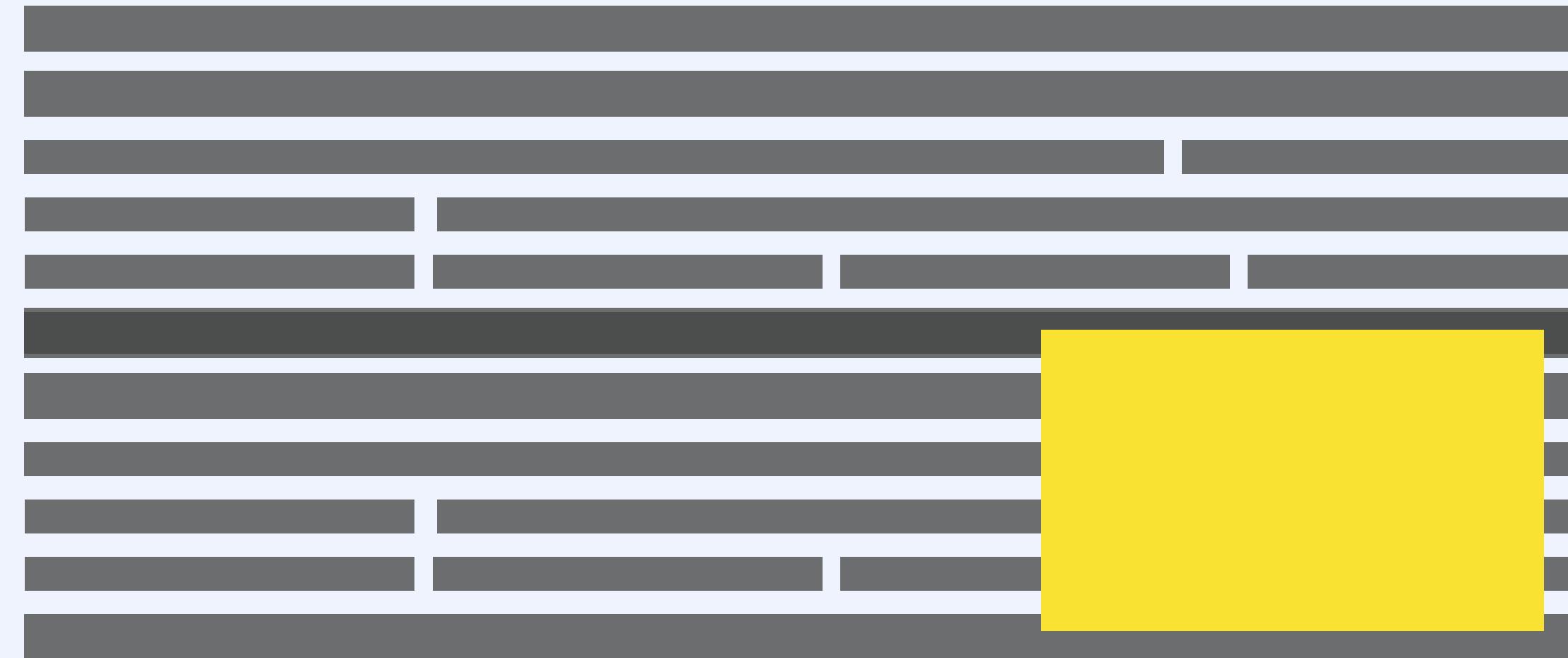
In the beginning,  
content was linear...



Today, it can overlap  
in all sorts of ways



Today, it can overlap  
in all sorts of ways

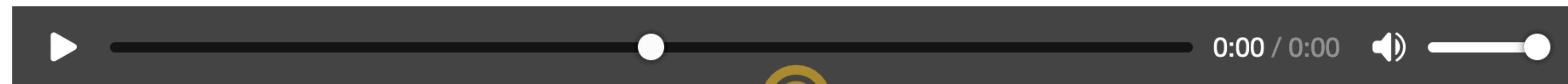


Today, it can overlap  
in all sorts of ways



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.

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



That is just one of his many contributions. In the 1960s he helped to look for life on other planets via the Soviet Union's Venera landers. In the atmosphere in the 1970s, he helped to identify the first man-made chemicals to damage the ozone layer. His nomination to Britain's Royal Society in 1980 was based on his work in chemistry and physics—all before he became famous. He is best known (it is named after Gaia).

### Listen to this story ×

Save time by listening to our audio versions of our most popular articles as you multitask

OK

Lovelock honed a method to find and quantify CFCs in the atmosphere. He also worked on the harmful chemicals. He has written a book on the flora of work in biology, chemistry and physics—all before he became famous. He is best known (it is named after Gaia).

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>

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

**UI considerations**

**Semantics**

**Positioning**

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

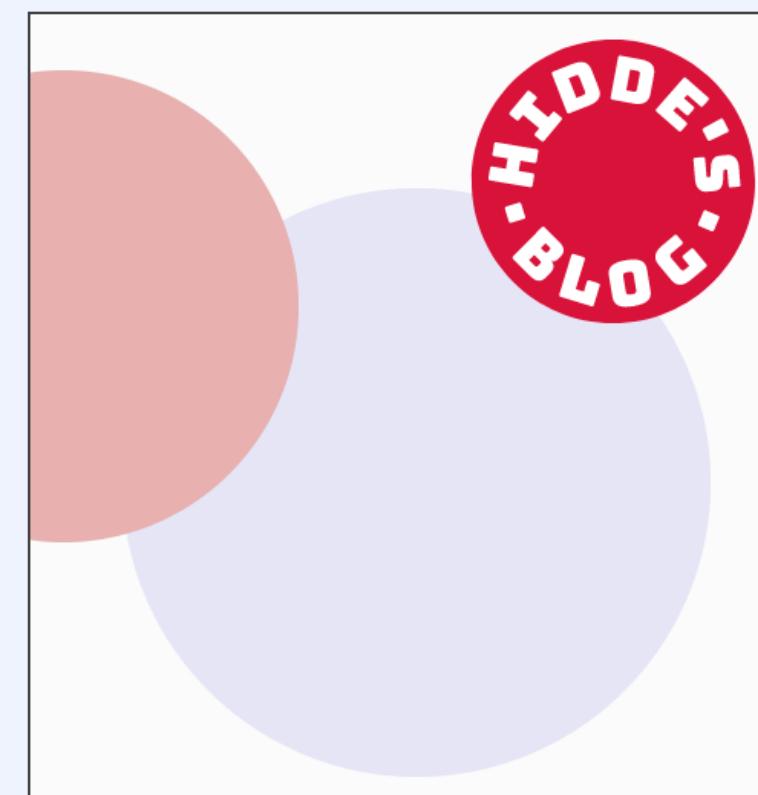
---

participant at Open UI CG

---

hidde.blog





[Blog](#)   [Speaking](#)   [About me](#)   [Contact](#)

# 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**

• • •

@hdv@front-end.social

# HIDDE.BLOG

## words

I read this book

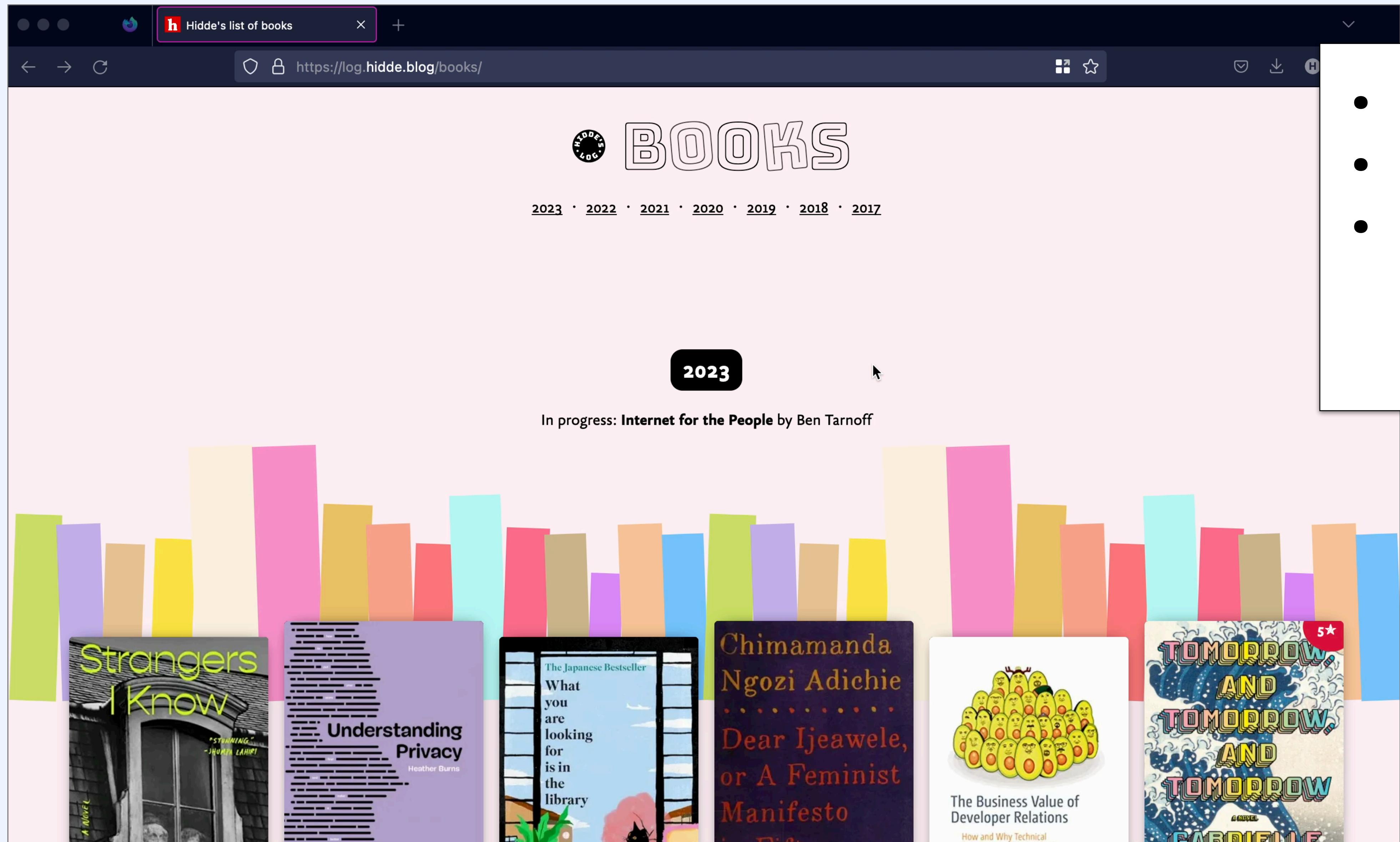
I went to a concert

# **LOG.HIDDE.BLOG**

data points, things I liked

I listened to a song

I watched a film



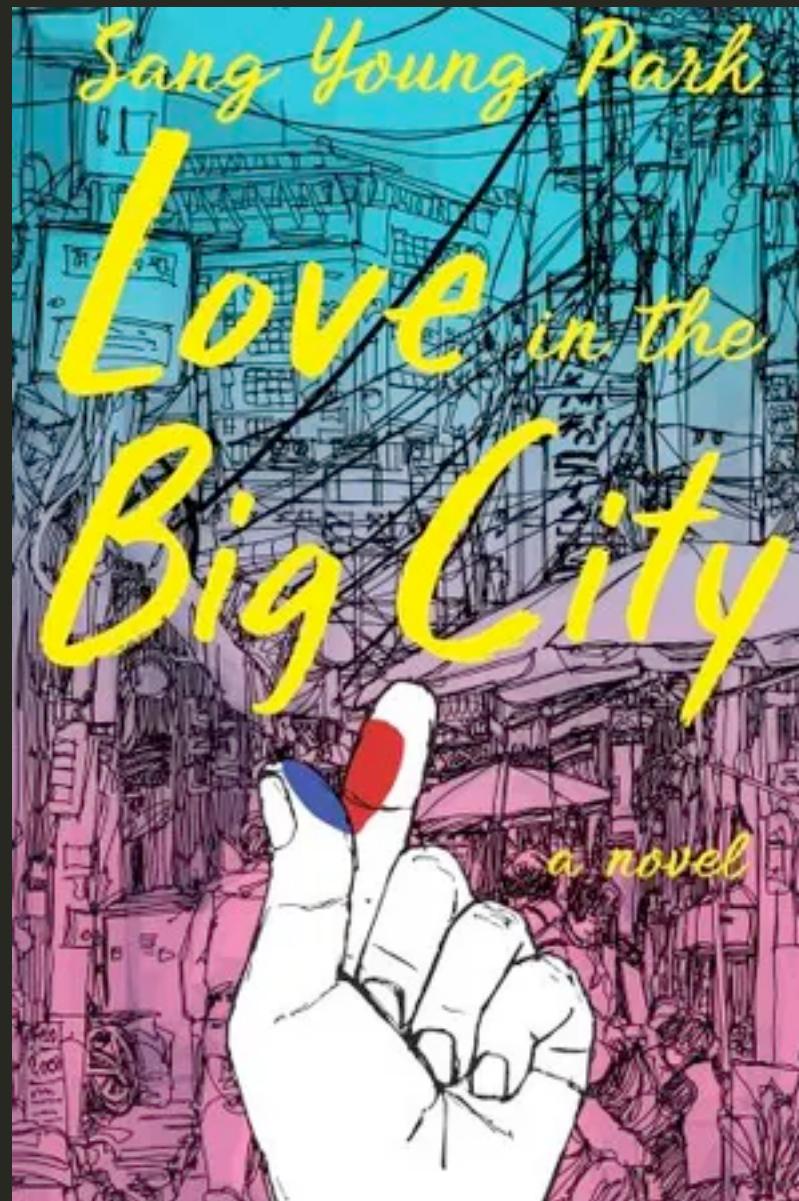
- Eleventy site
  - Sanity data
  - covers in many shapes and sizes

```
"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",  
        "foreground": "#fff"  
    }  
}
```

```

"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",
    "foreground": "#fff"
  }
}

```



muted  
(background)

lightVibrant  
(background)

darkVibrant  
(background)

lightMuted  
(background)

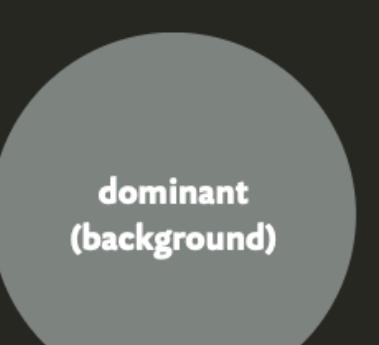
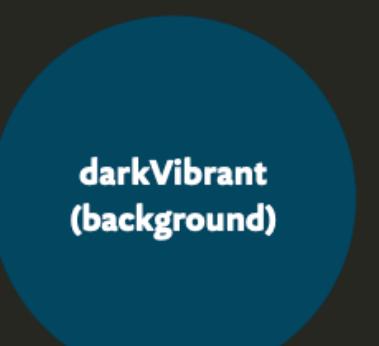
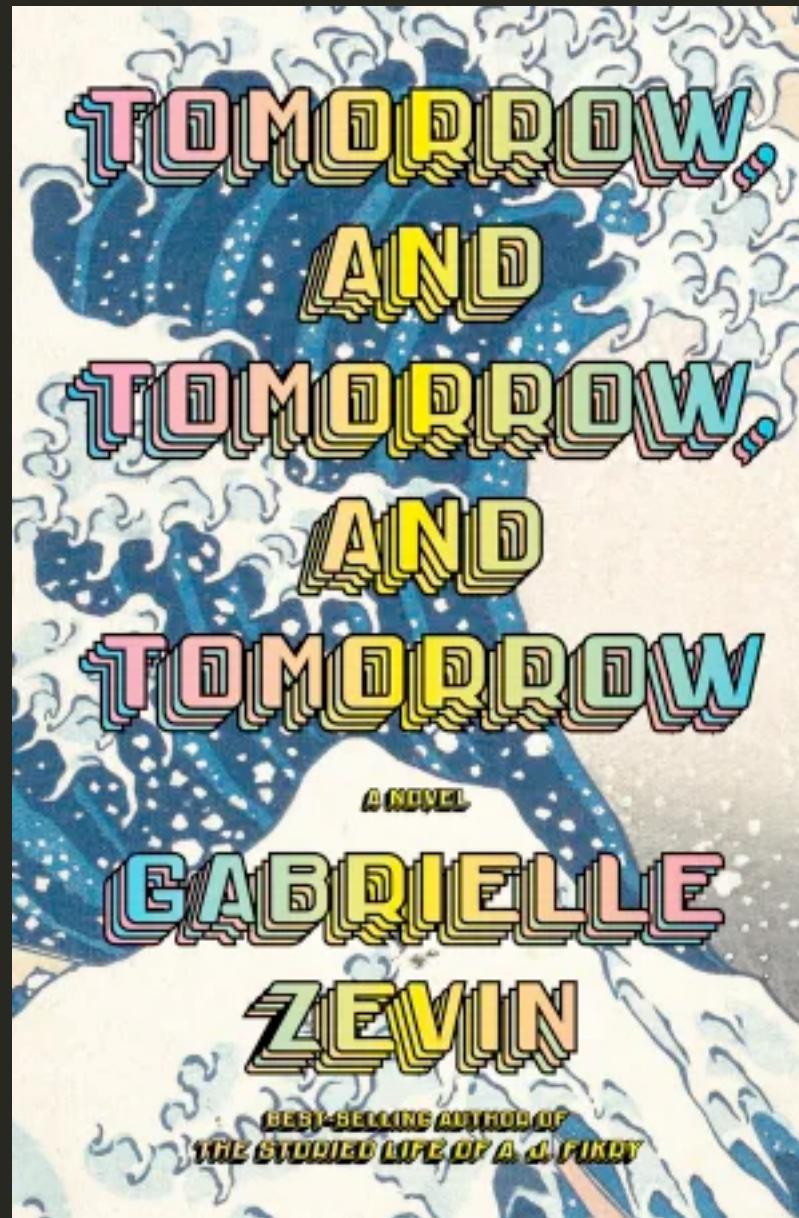
darkMuted  
(background)

dominant  
(background)

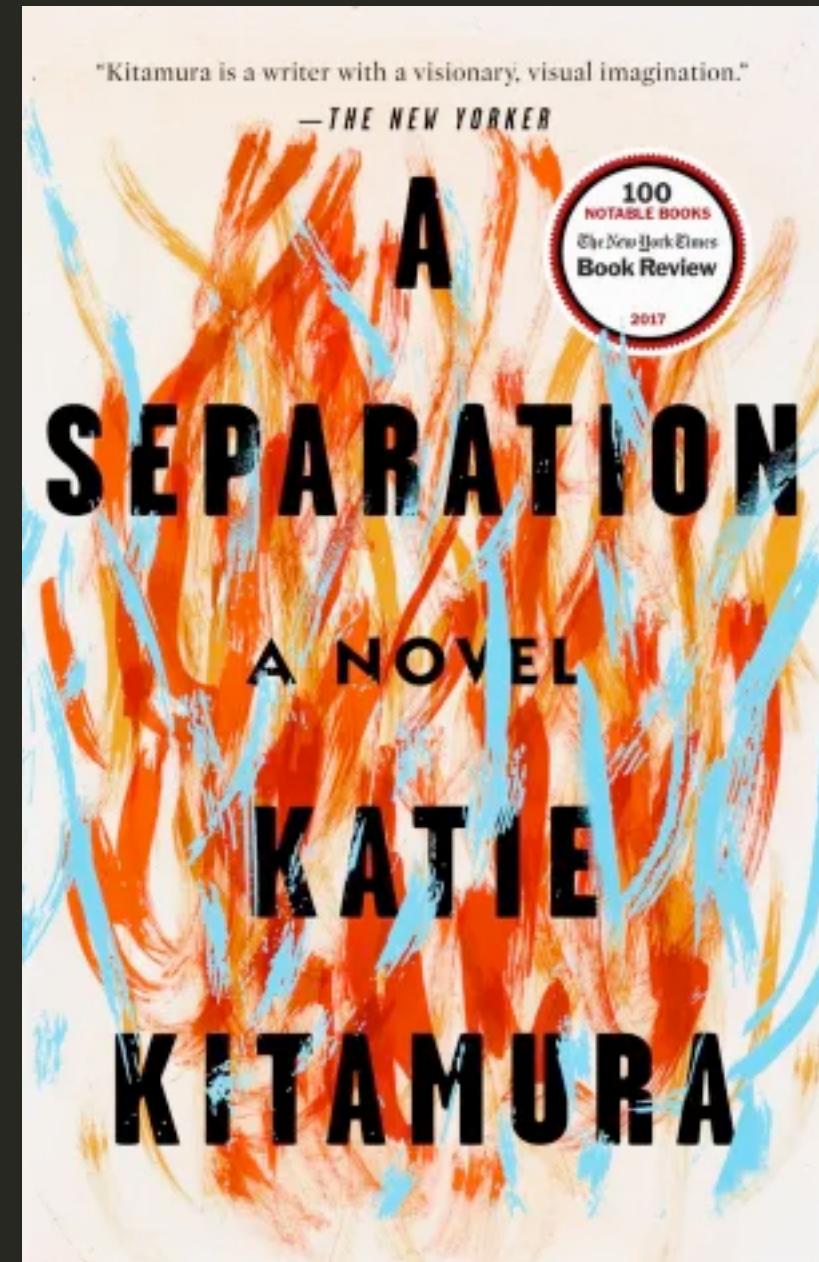
```

"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",
    "foreground": "#fff"
  }
}

```



```
"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",  
        "foreground": "#fff",  
        "title": "#fff",  
        "population": 1.93  
    }  
}
```



muted  
(background)

lightVibrant  
(background)

darkVibrant  
(background)

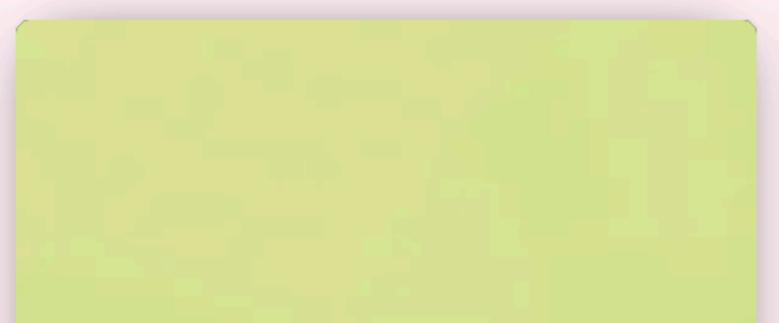
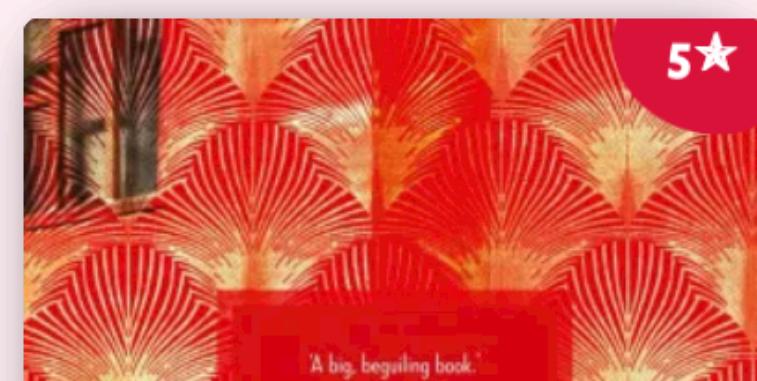
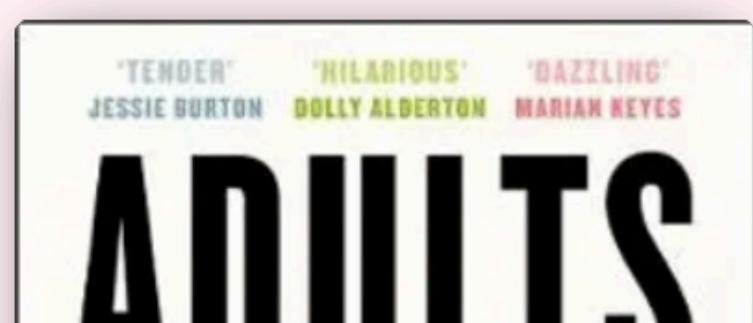
lightMuted  
(background)

darkMuted  
(background)

dominant  
(background)

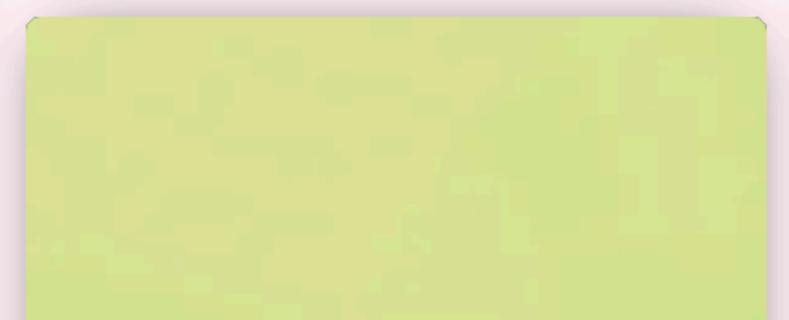
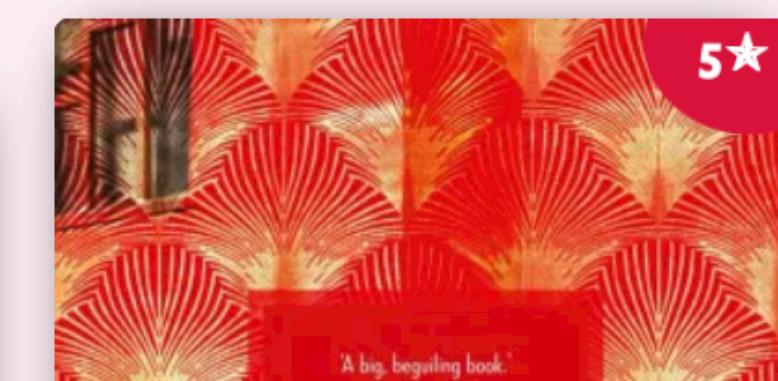
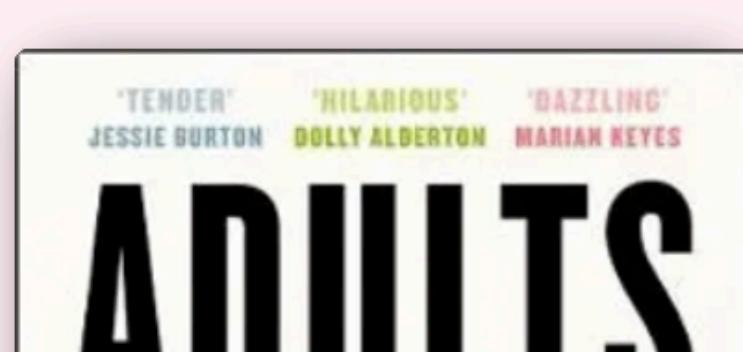
```
<div class="book-case">  
  {% for book in yearCollection %}  
  
    {# book code #}  
  
  {% endfor %}  
</div>
```

books.njk



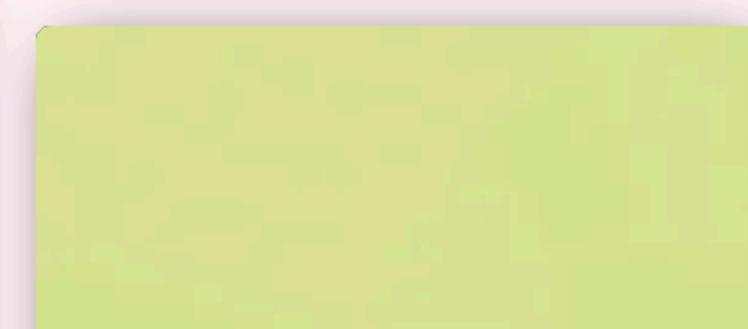
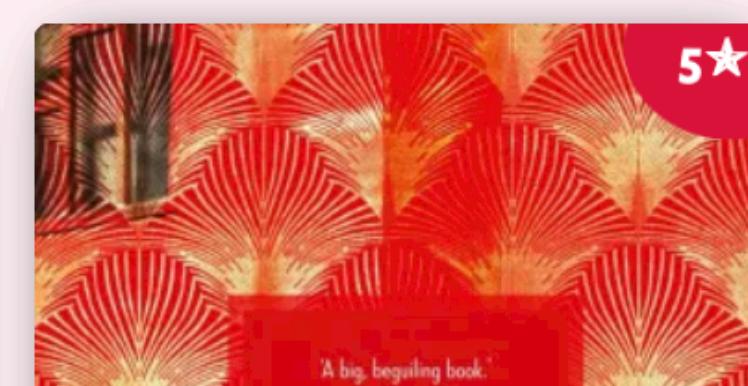
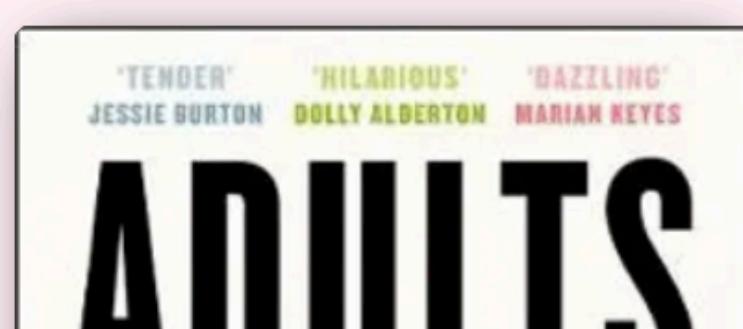
```
<div class="book-case">  
  {% for book in yearCollection %}  
    <span  
      style="  
        background-color:  
          {{ book.image.asset.metadata.palette.lightVibrant.background }};  
      ">  
    </span>  
  {% endfor %}  
</div>
```

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





Gentleman's Dub Club in London  
on 2022-03-06 at O2 Forum Kentish Town



Nuby Garcia in Rotterdam  
on 2021-11-14 at Lantaren Venster



Brad Mehldau in Rotterdam  
on 2021-10-23 at De Doelen



Ellen Allien in Rotterdam  
on 2019-07-06 at Vroesenpark • Expedition in Rotterdam



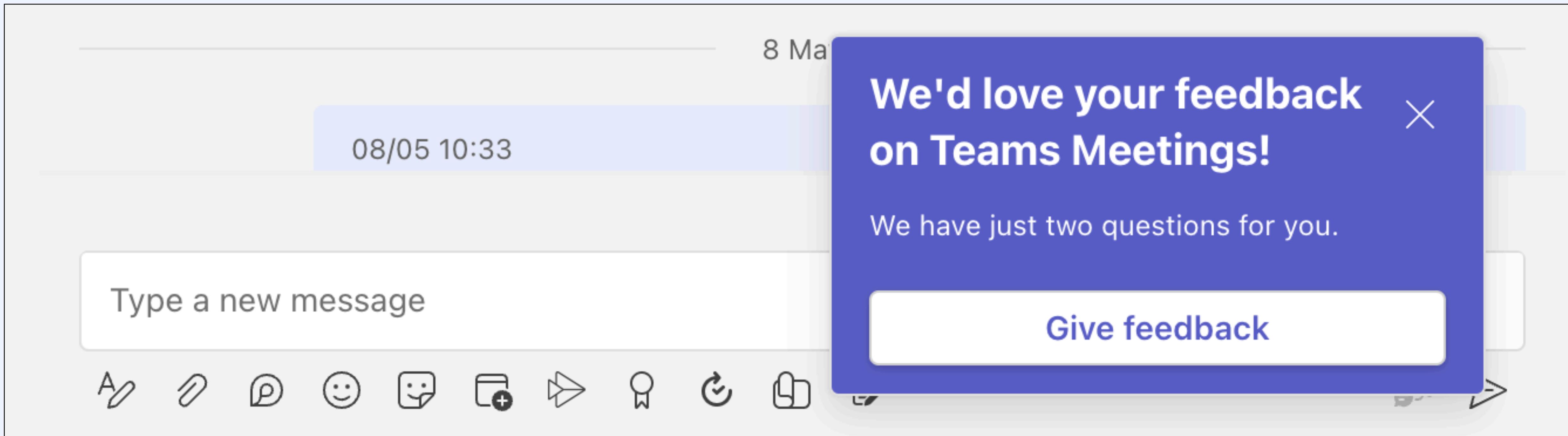
Vuur & Elling in Rotterdam

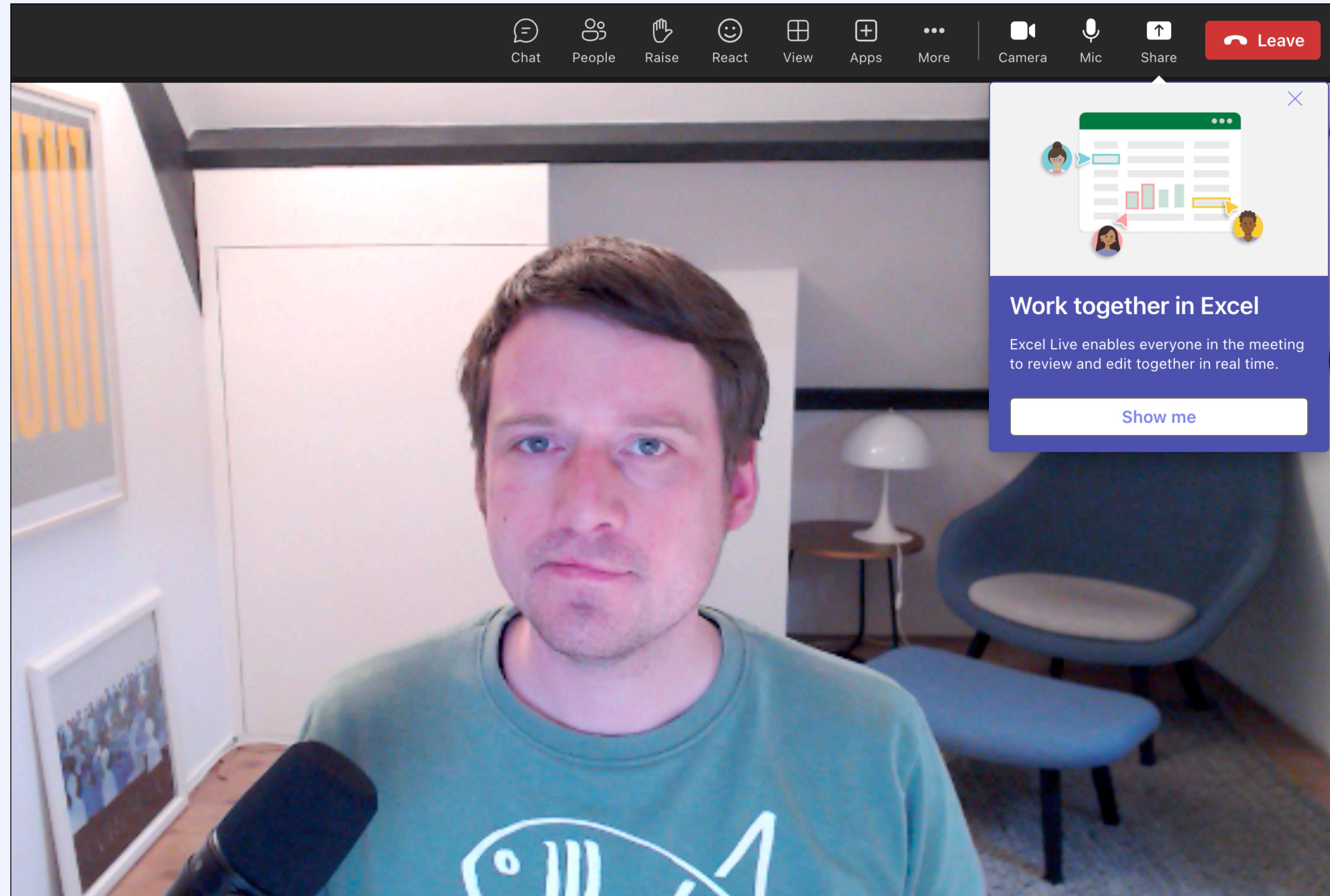


# DIALOGS vs POPOVERS

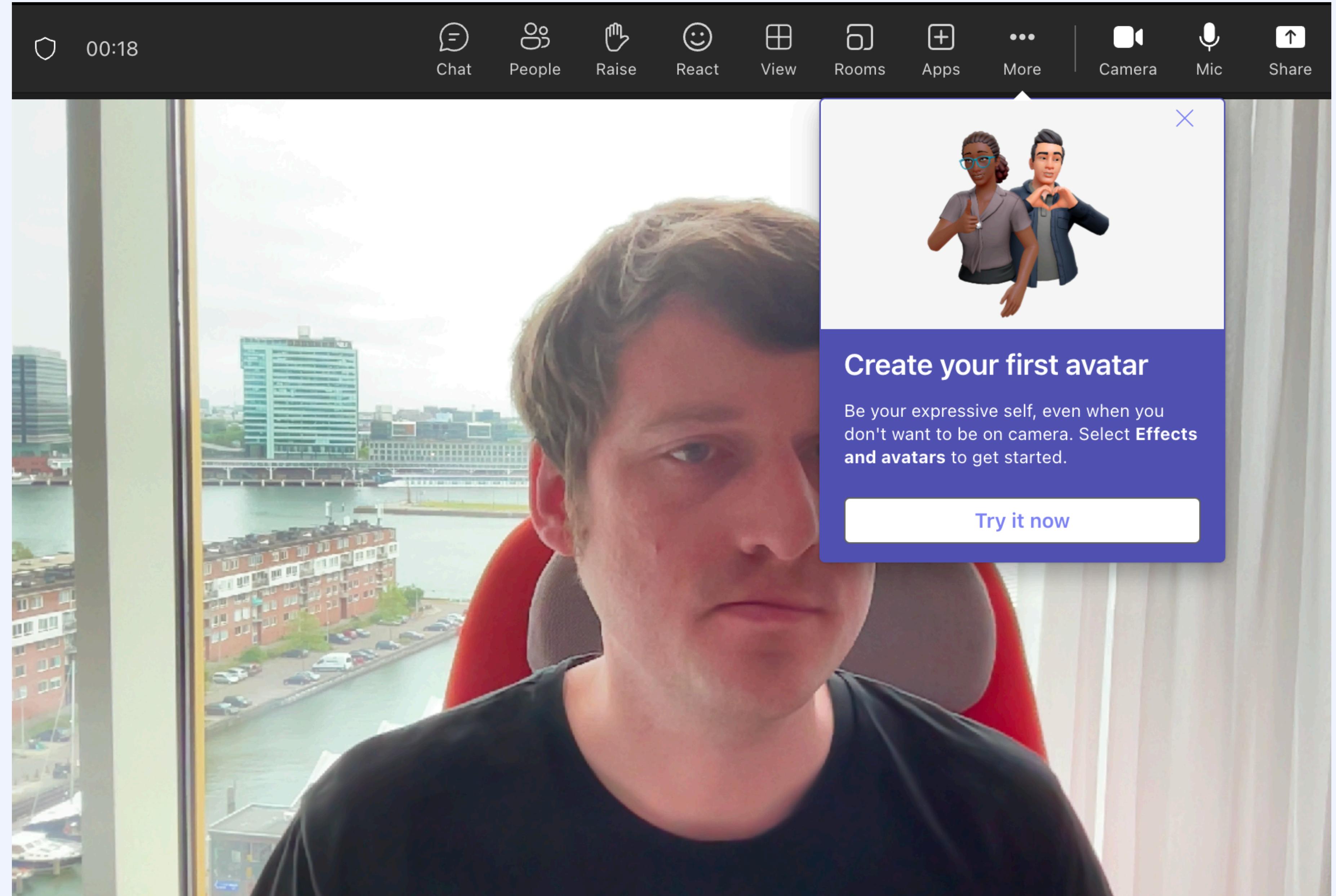
# Teams: a timed popover to ask for feedback

@hdv@front-end.social



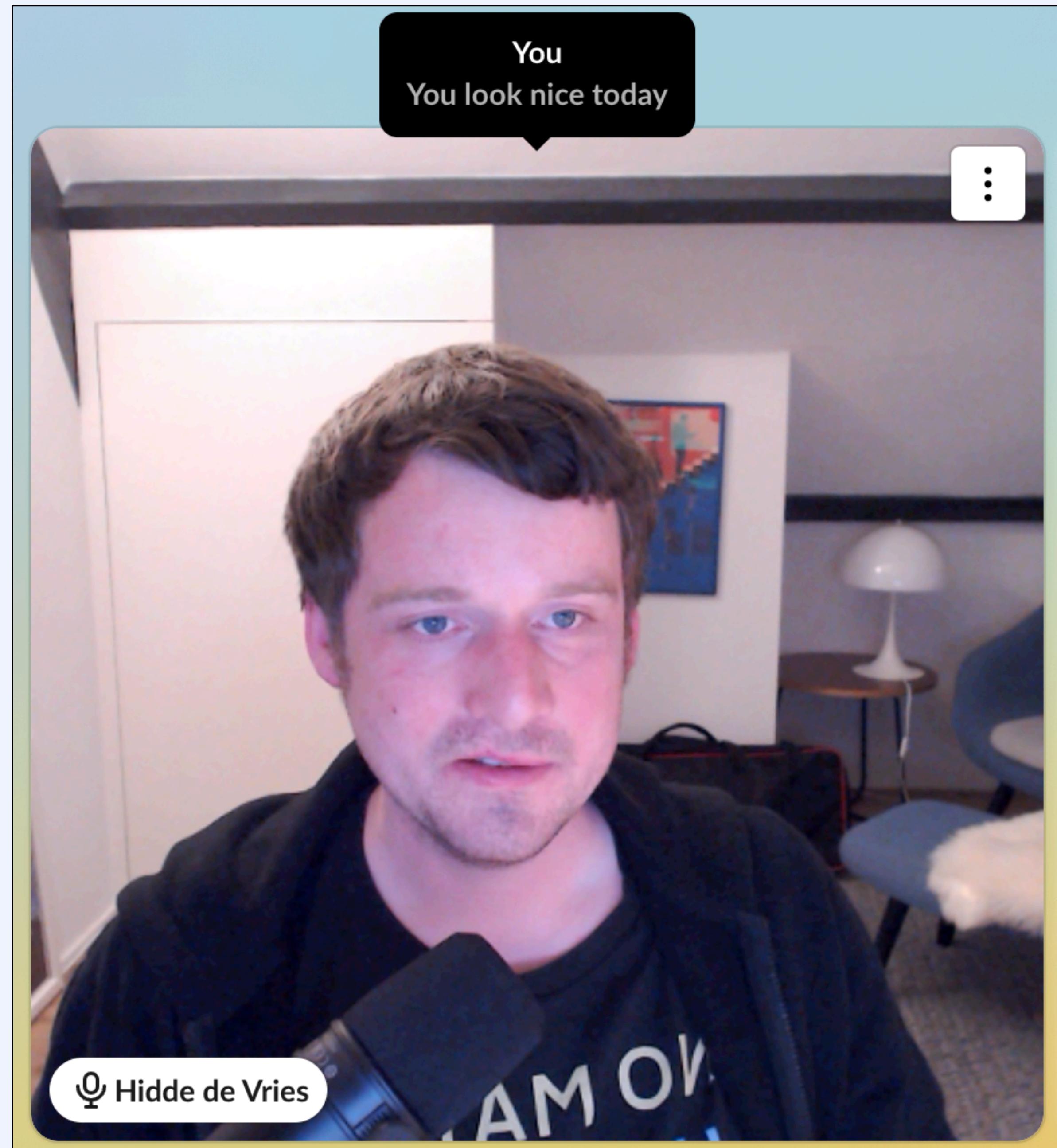


Teams: a  
popover to teach  
about an Excel  
integration



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

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



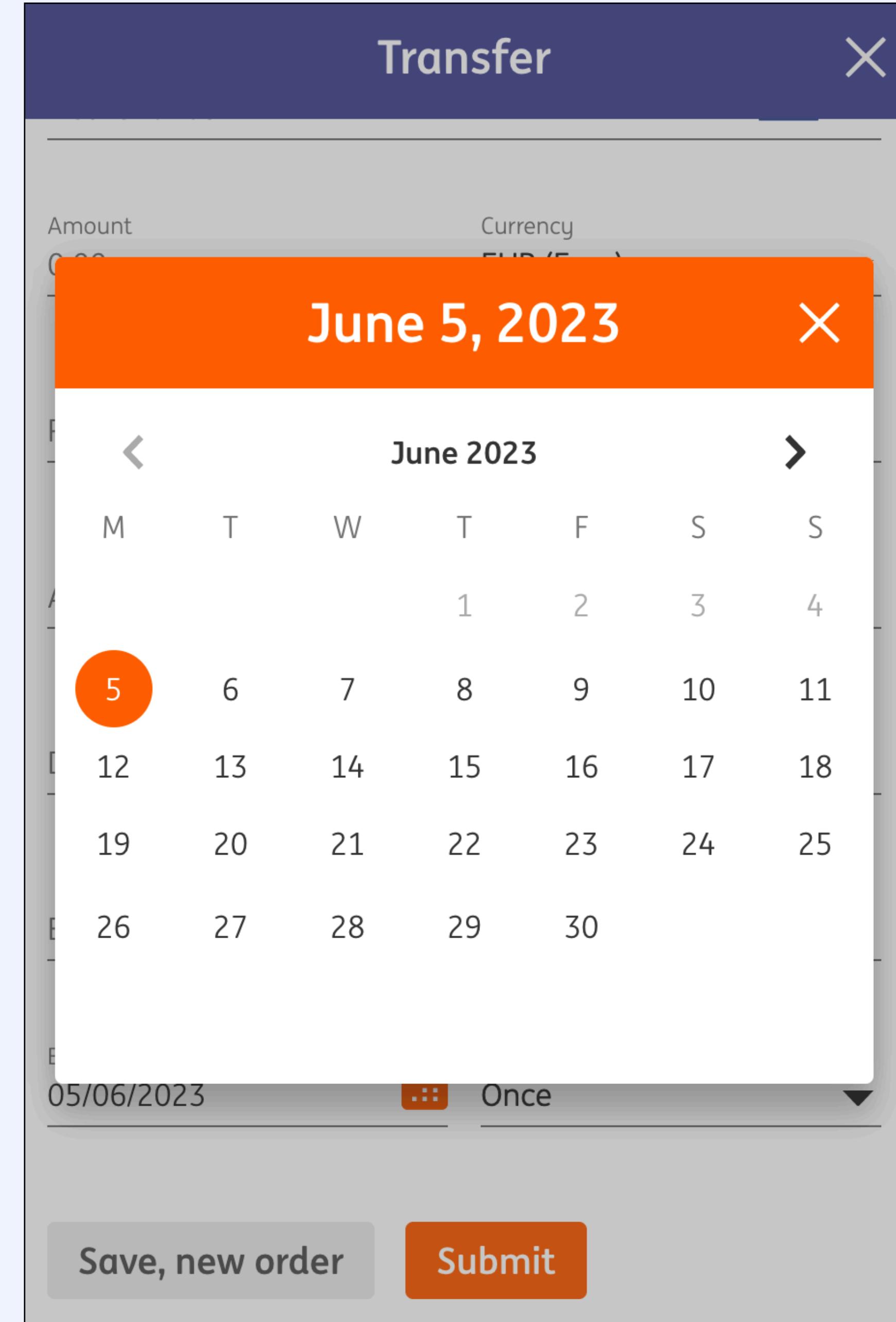
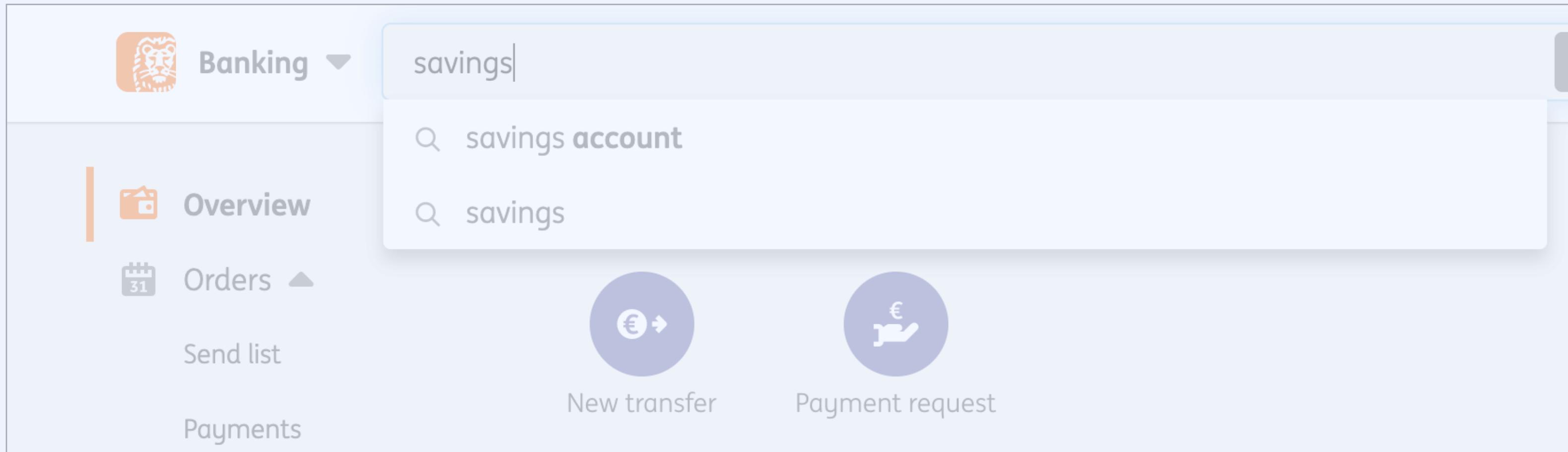
# Online banking: a popover to autocomplete search query

@hdv@front-end.social

The screenshot shows a web-based banking application. At the top left is a logo of a lion and the word "Banking". To the right is a search bar containing the text "savings" with a magnifying glass icon and a "Search" button. Further right are links for "Help", a user profile for "Hr H de Vries", and a "Log out" button. On the far left, there's a vertical sidebar with icons for "Overview" (document), "Orders" (calendar), "Send list", and "Payments". The main area has two large blue circular buttons: one labeled "New transfer" with a euro symbol and arrow, and another labeled "Payment request" with a hand holding a euro symbol. A search popover is open over the search bar, displaying two suggestions: "savings account" and "savings". The background of the page is light gray.

# 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](https://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

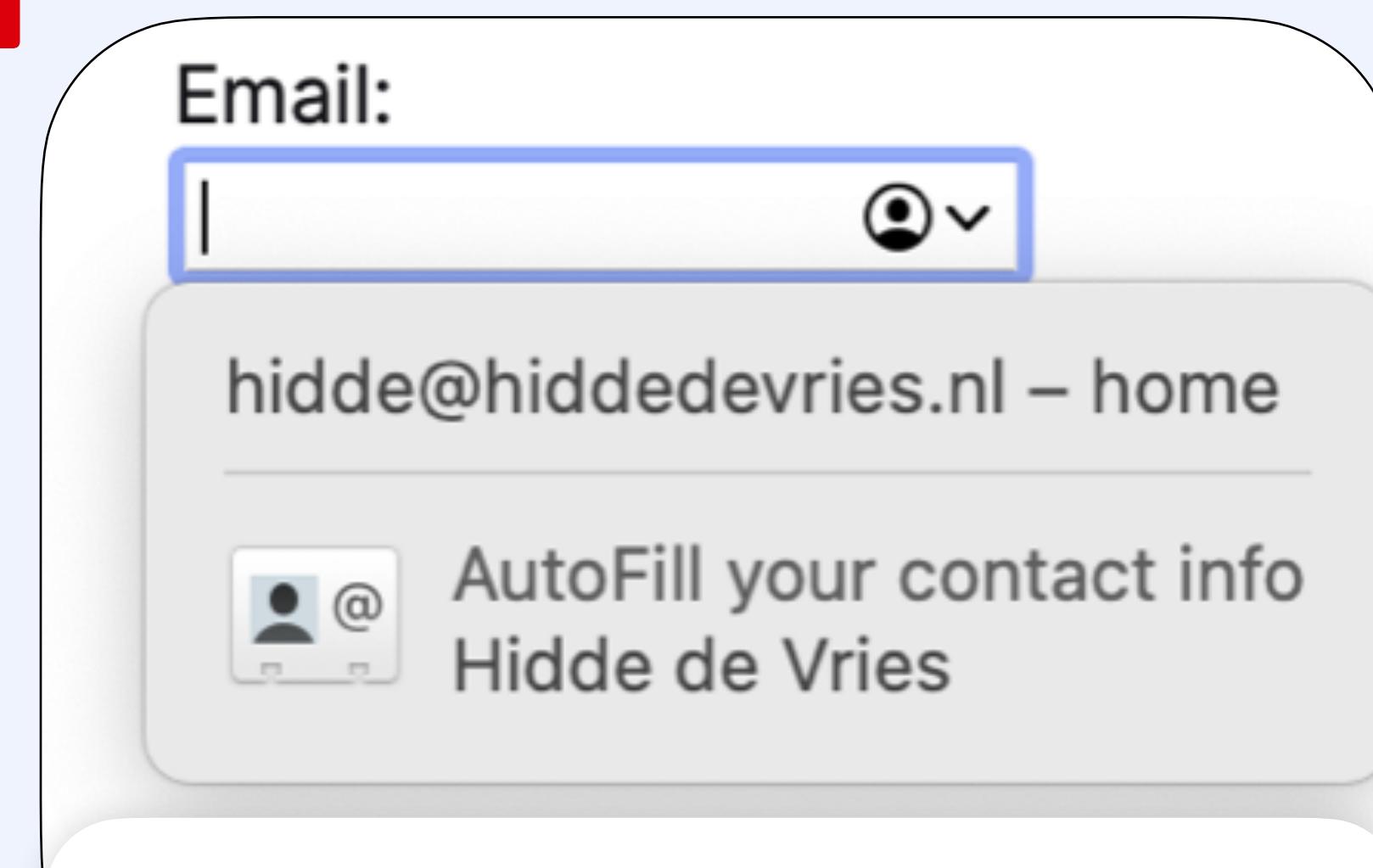
```
<div popover>... </div>
```

# [POPOVER]

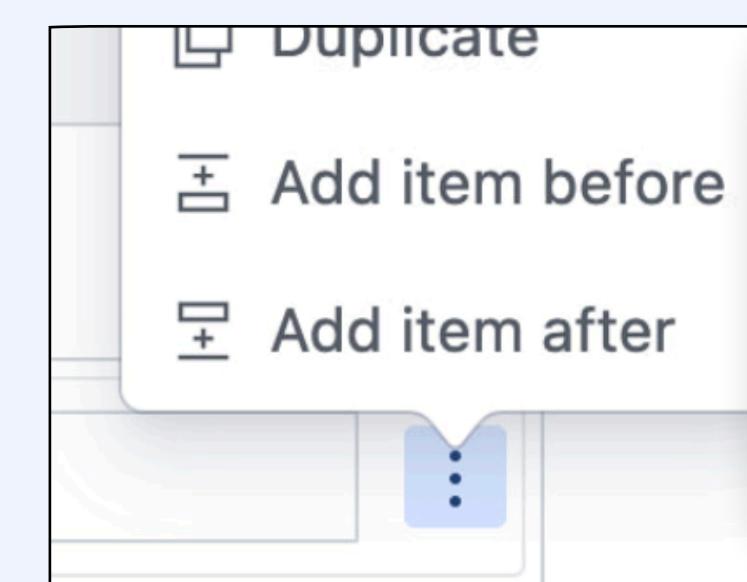
*Use cases*



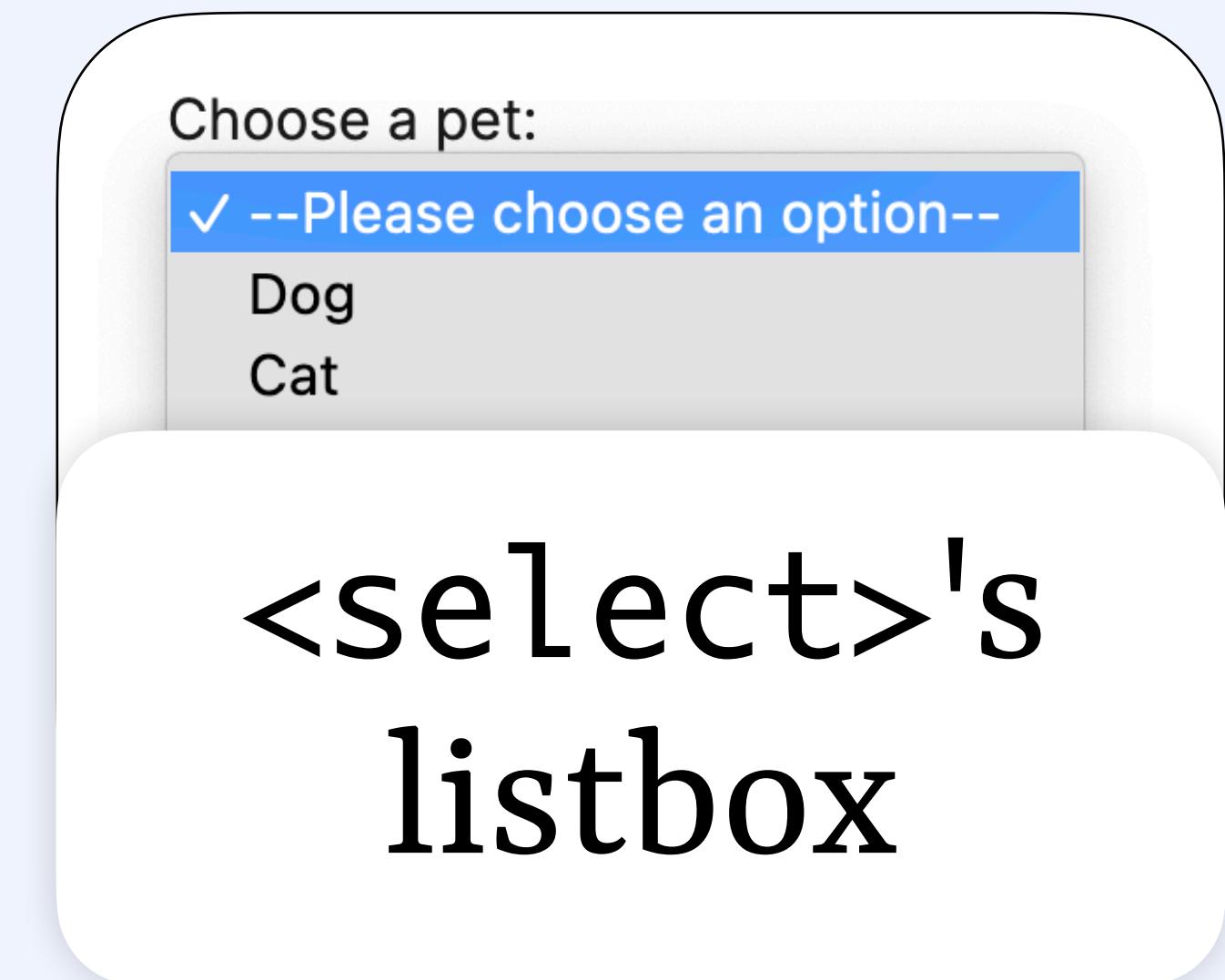
content  
pickers



form element  
suggestions

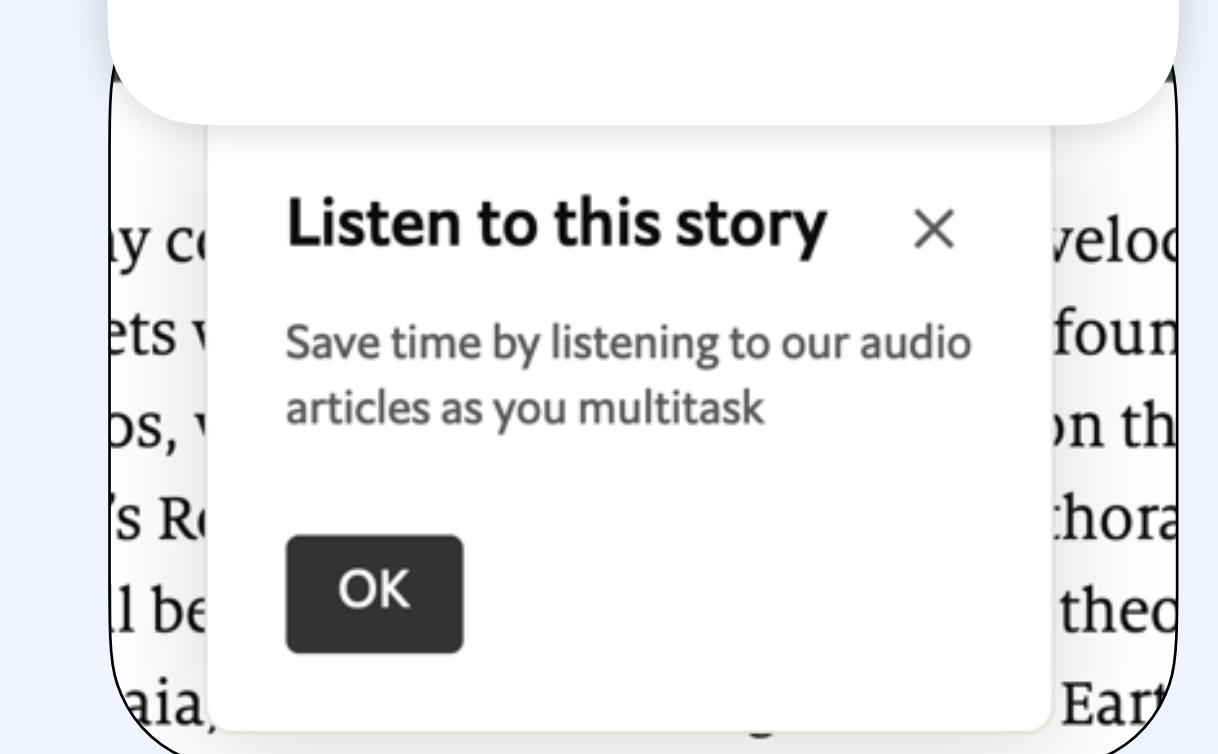


action  
menus



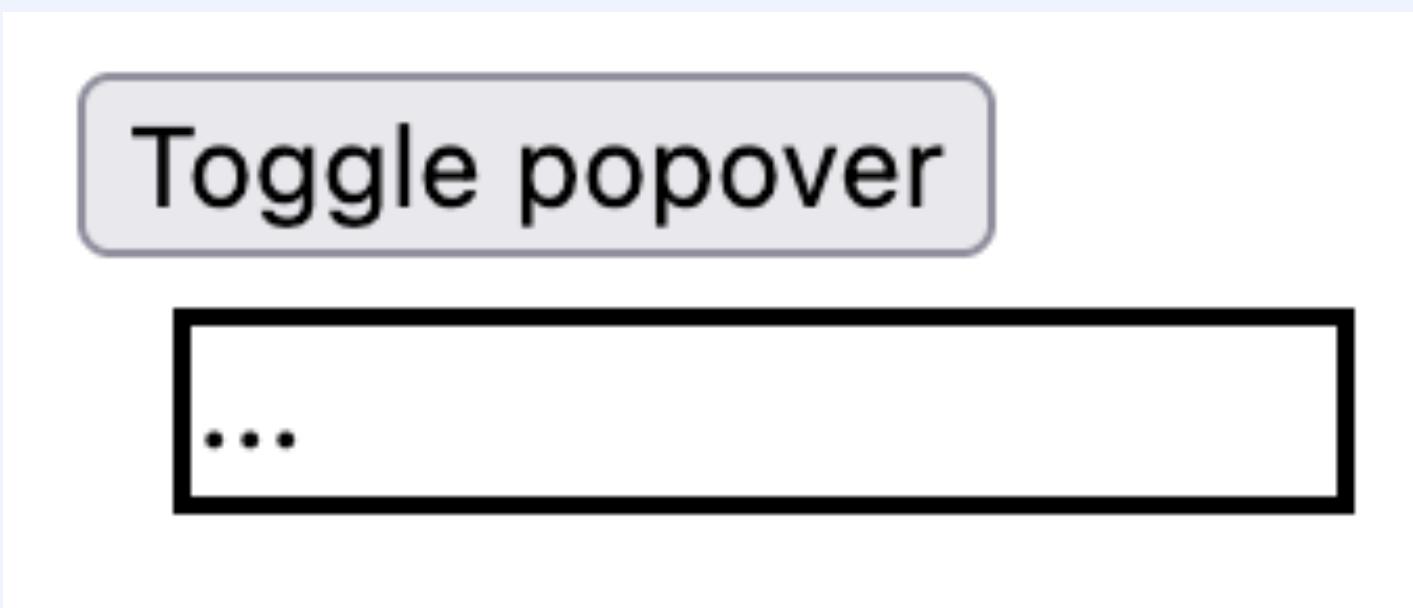
<select>'s  
listbox

teaching  
UI



# [POPOVER]

No *JavaScript*  
*required*

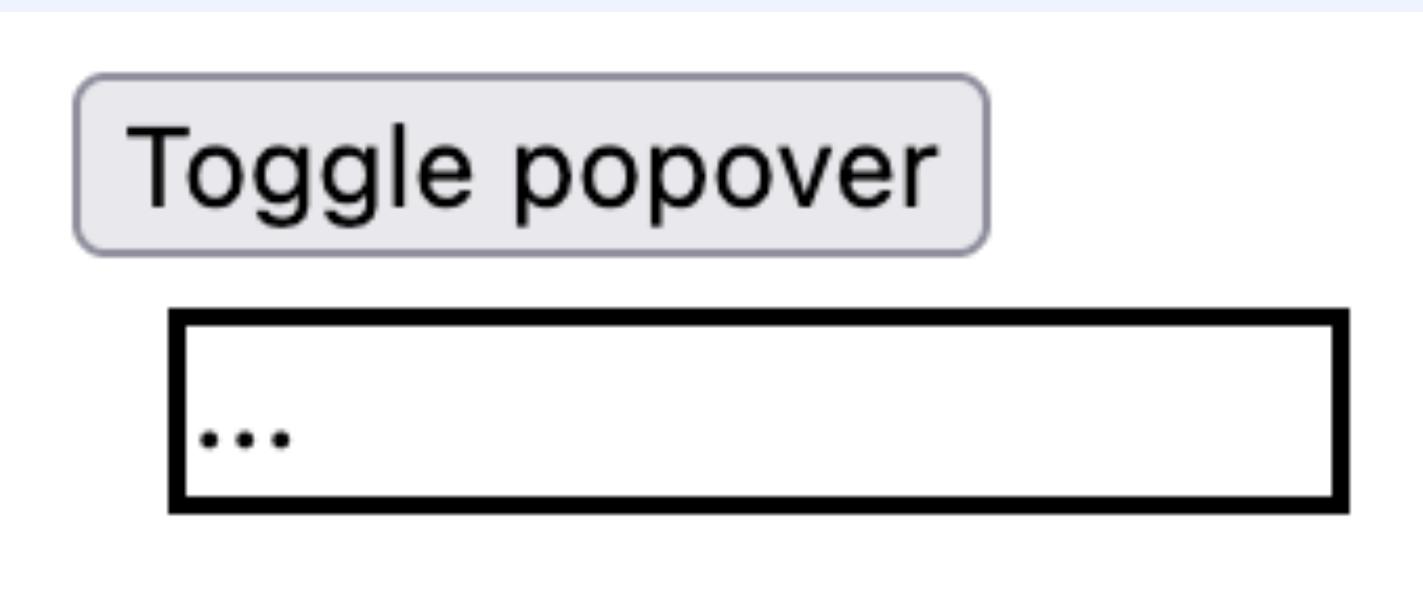


```
<button>
  Toggle popover
</button>

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

# [POPOVER]

No *JavaScript*  
*required*



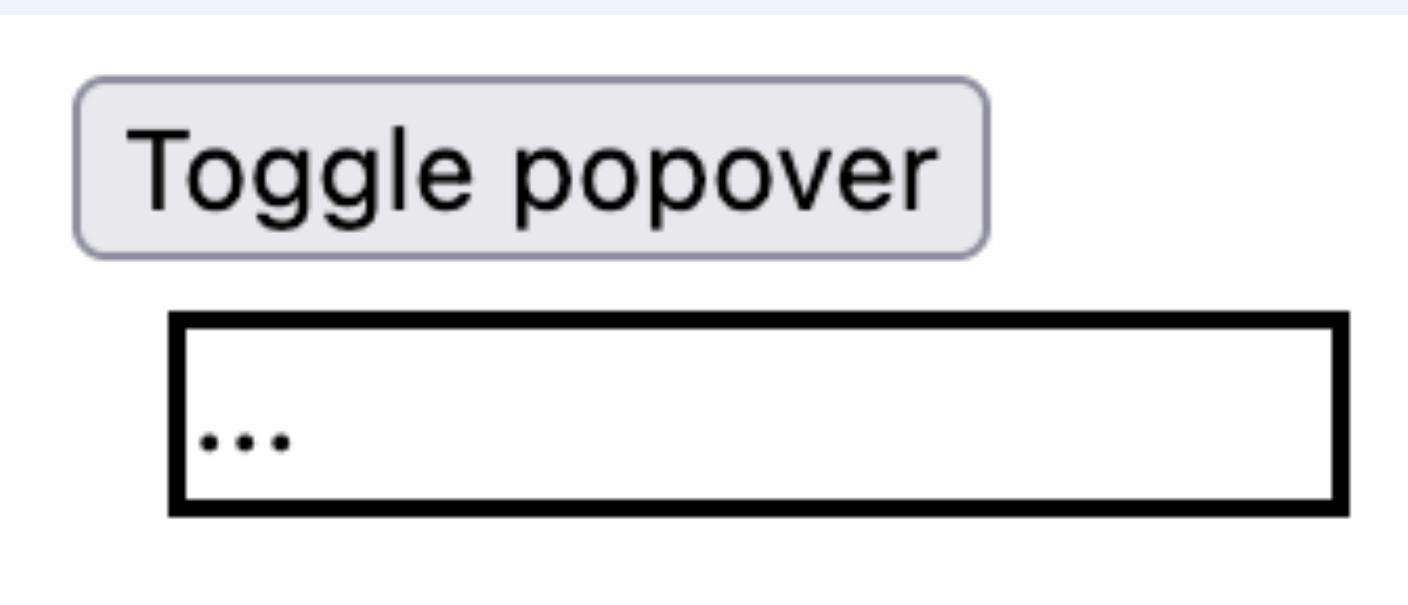
```
<button>
  Toggle popover
</button>

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

make it a  
popover

# [POPOVER]

No *JavaScript*  
*required*



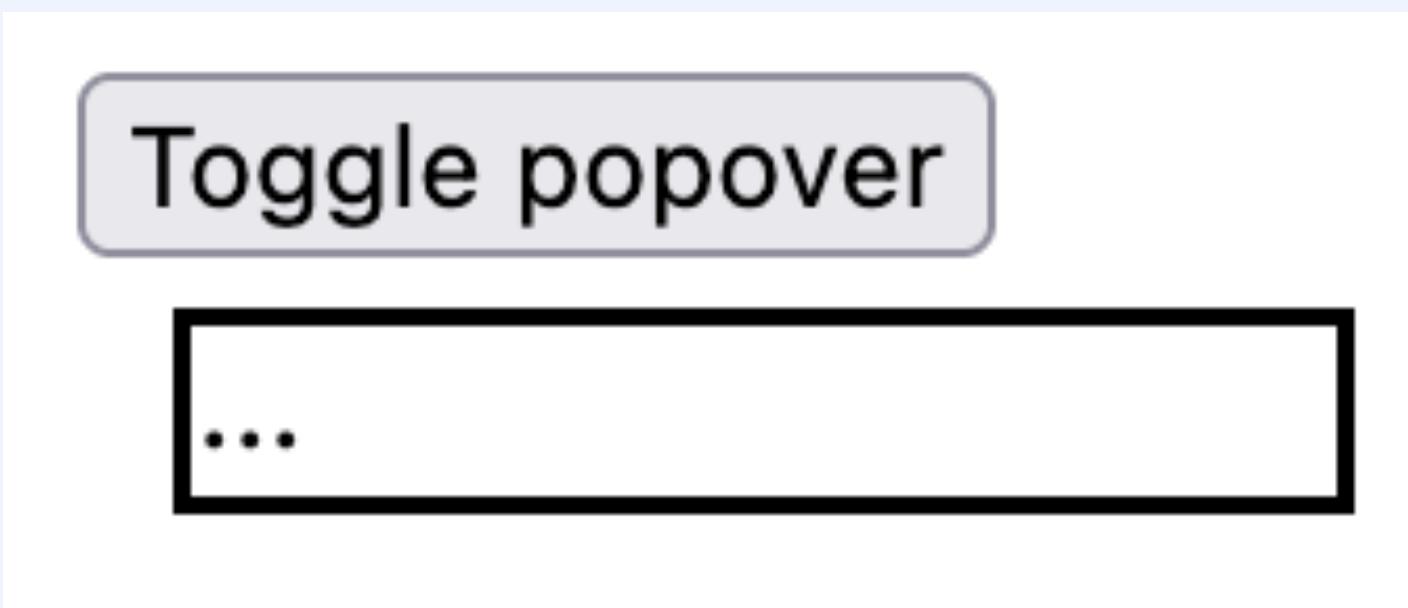
```
<button>  
  Toggle popover  
</button>
```

```
<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](https://github.com/whatwg/html/issues/3567)

The screenshot shows a GitHub issue page for the `whatwg/html` repository. The title of the issue is "Have some way of opening `<dialog>` elements without JavaScript". The issue was opened by `keithamus` on March 14, 2018, and has 54 comments. A comment from `keithamus` on the same day expresses concern that dialog elements are great but their functionality relies on JavaScript, specifically the `open` attribute. The GitHub interface includes standard navigation bars like Pulls, Issues, Codespaces, Marketplace, and Explore, along with repository statistics like 1.7k issues and 155 pull requests.

Have some way of opening `<dialog>` elements without JavaScript #3567

keithamus commented on Mar 14, 2018 · 54 comments

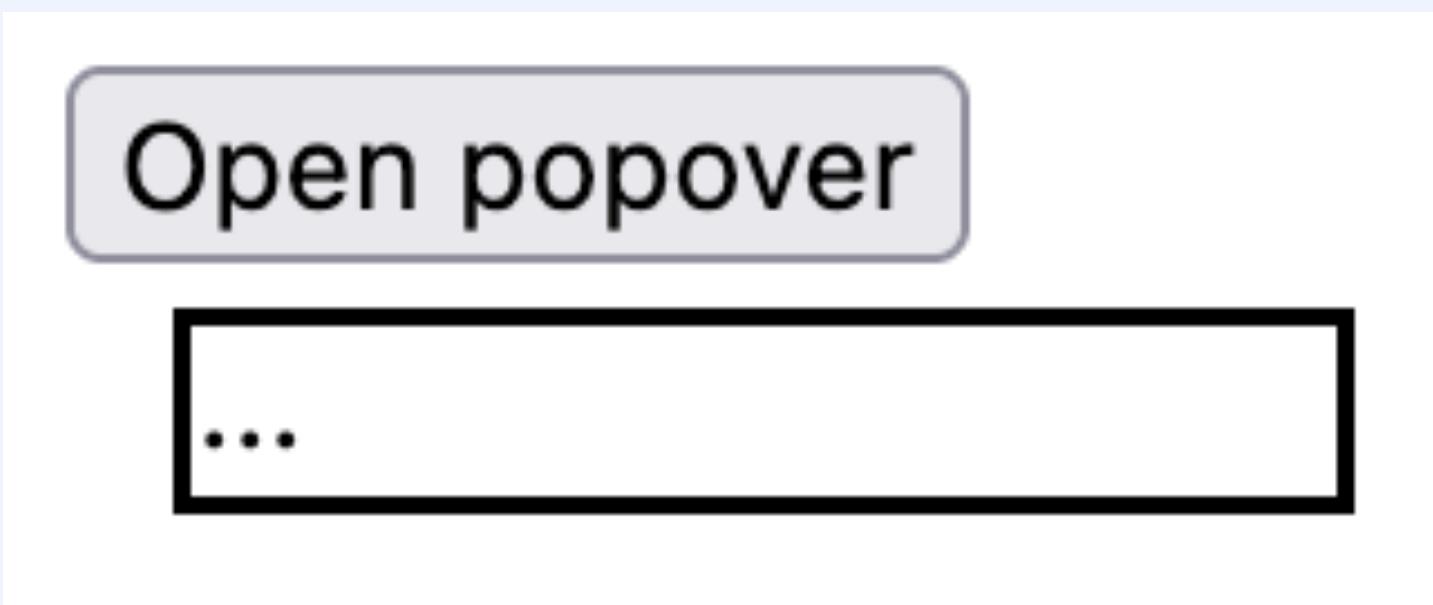
dialog elements are a great addition and I'm glad they're getting implemented, but a key part of their functionality relies on JavaScript: to open a `<dialog>` you need to use JavaScript to set the `open` attribute.

Assignees  
No one assigned

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">
```

...

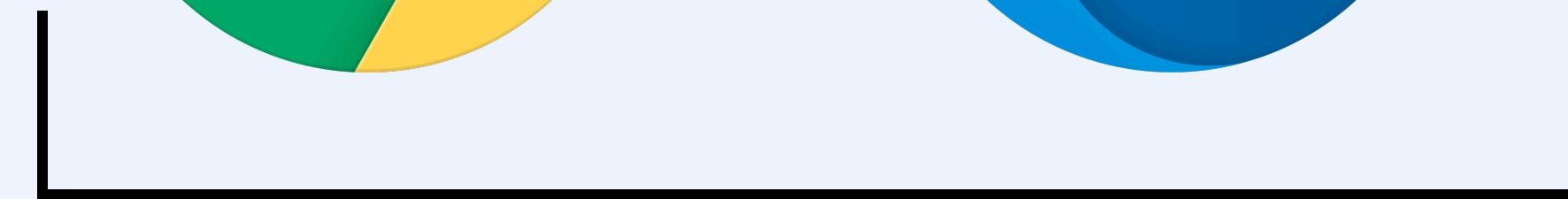
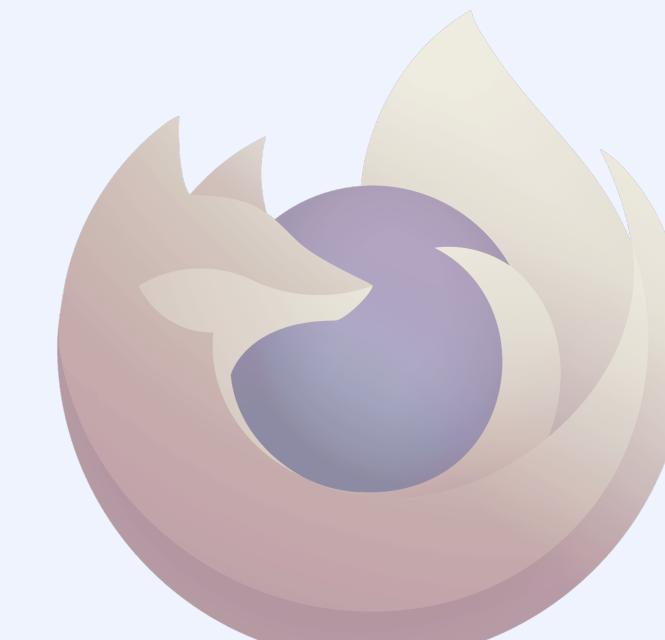
```
</div>
```

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

## [POPOVER]

*Open/close  
with script*

## CURRENT STATUS: POPOVER ATTRIBUTE/API



in Chromium 114  
(Chrome stable, Edge stable soon)

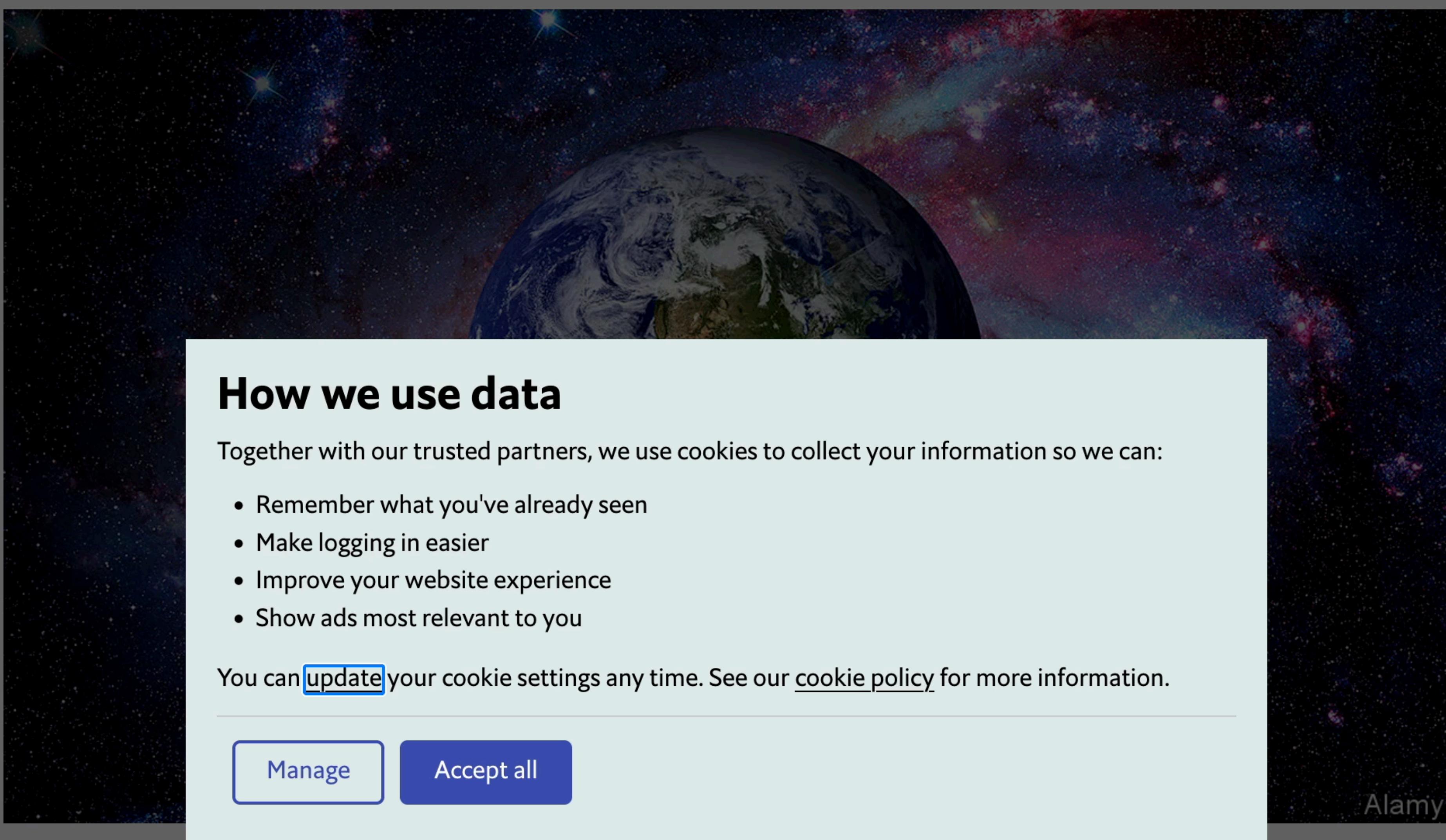


Tech Preview >167,  
Safari 17 (fall 2023)



**HOW ARE  
THESE PATTERNS  
DIFFERENT?**

# **MODAL** VS **NON-MODAL**



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.

English

## MijnOverheid

Home

Berichtenbox

Lopende zaken

Identiteit

Financiën

Werk

Gezondheid

Wonen

Vervoer



H.A. de Vries

Uitloggen

### 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](#)

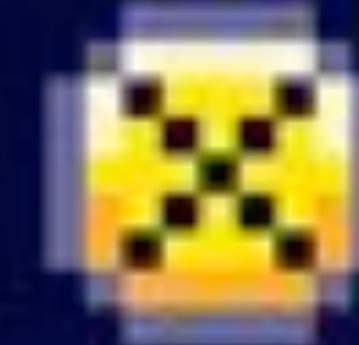
[Ja, verlengen](#)

n na uw overlijden wel of niet

[Ga naar Donorregister](#)



GAME OVER

Press   
to try again

The screenshot shows a mobile web page from The Economist. At the top, there are three buttons: 'Save' (with a bookmark icon), 'Share' (with a share icon, which is highlighted with a blue border), and 'Give' (with a gift icon). Below these buttons is a large, semi-transparent white overlay containing the word 'Share' and a close 'X' button in the top right corner. The overlay lists five sharing options, each with an icon and text: 'Copy link' (phone icon), 'Share on Facebook' (Facebook icon), 'Share on Twitter' (Twitter icon), 'Share on WhatsApp' (WhatsApp icon), and 'Share on LinkedIn' (LinkedIn icon). The background of the page is visible through the overlay, showing a story about flexible schedules and links to download audio and podcasts.

RDS “flexible schedule” have an attract  
andemic workplace full of motivated w  
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

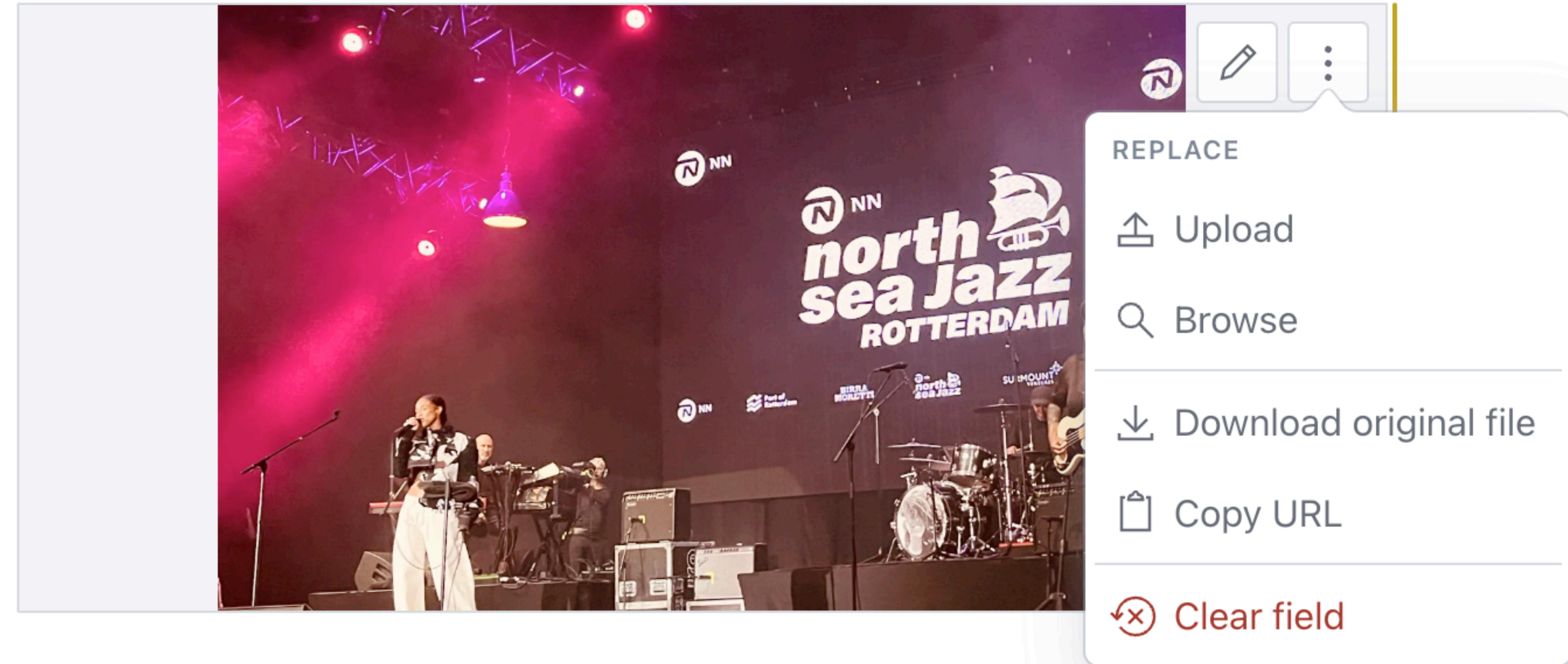
blue-collar worker in an industry that operates in shifts, for example,

The image shows a social network post with a light blue background. At the top, there's a small profile picture of a person with short brown hair. Below the profile picture, the text "Social network: a non-modal alternative text dialog" is displayed in a large, bold, black font. To the right of the text, the email address "@hdv@front-end.social" is shown in a smaller, dark blue font.

The main content area features a white rounded rectangle containing an image of four Fritz kola bottles. From left to right, the bottles are: fritz-kola (dark brown), fritz-kola (light brown), fritz-limo (yellow), and fritz-spritz (orange). Below the image, the text "Image description" is displayed in a large, bold, black font. Underneath that, the text "Pieter pot website with various Fritz kola beverages on sale" is shown in a smaller, gray font.

At the bottom of the white box, there is a "Dismiss" button with a light gray background and a thin black border. The word "Dismiss" is centered in a bold, black font. Below the white box, there is a footer bar with a light beige background. On the left side of the footer, there is a small dark gray box with the word "ALT" in white. Next to it is a logo consisting of the word "pie" in a bold, black, sans-serif font, with a small "toe" graphic underneath. To the right of the logo, the text "Nog gemakkelijker verpakkingsvrij winkelen?" is displayed in a bold, black font.

Main image



**Alternative text**

What's on this picture?

The screenshot shows a booking website interface with a non-modal chat widget. The chat is a white box on the left containing a user icon (Cati) and a message history:

- Hi Hidde!
- What can I help you with today?

Close and minimize buttons are at the top right of the chat box. To the right of the chat is a dark background illustration of a hotel lobby with staff and guests. Below the illustration is a "Create a team event" section with a group icon and the text "Organize travel for a group". Further down are "Hotels" and "Trains" sections with icons. A "1 room" dropdown is shown above a red-outlined input field. At the bottom right are "Check-in" and "My hotel" buttons.

Hi Hidde!

What can I help you with today?

Cati

Hotels

Trains

1 room

Check-in

My hotel

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**

New message: explicit dismiss

@hdv@front-end.social

The screenshot shows a Twitter compose screen. At the top, there's a navigation bar with 'Latest Tweets' on the left and 'Retweets' on the right. On the far left, there's a vertical sidebar with icons for Home, Notifications (1), Direct Messages, and Profile. The main area has a white background. In the top-left corner of the main area is a small circular profile picture of a man. To its right is a blue button with the text 'Everyone' and a dropdown arrow. Below this, the text 'Explicit dismiss example' is displayed in large black font. Further down, there's a section with a globe icon followed by the text 'Everyone can reply'. At the bottom of the screen, there are several blue icons for media attachments (Image, GIF, List, Smile, Calendar, Location). To the right of these are two light gray circular buttons with a plus sign and a refresh symbol. On the far right is a large blue 'Tweet' button.

Latest Tweets

Retweets

Everyone

Explicit dismiss example

Everyone can reply

Tweet

# Font chooser: light dismiss

@hdv@front-end.social

The screenshot shows a Google Docs editor interface. At the top, there's a toolbar with various icons for file operations like saving and sharing, and a user profile icon. Below the toolbar is a secondary toolbar with icons for navigating, printing, and adjusting text style. A font size dropdown is set to "26". The main content area contains a single line of text: "Light dismiss|". The text is bolded and italicized. The background of the content area has a grid pattern with numerical values (1, 2, 3, 4) on the left and top edges.

Light dismiss example

File Edit View Insert Format Tools Extensions Help

Share

26

Arial

B I U A

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.

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

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

`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 one.

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**.

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

# 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.

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

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

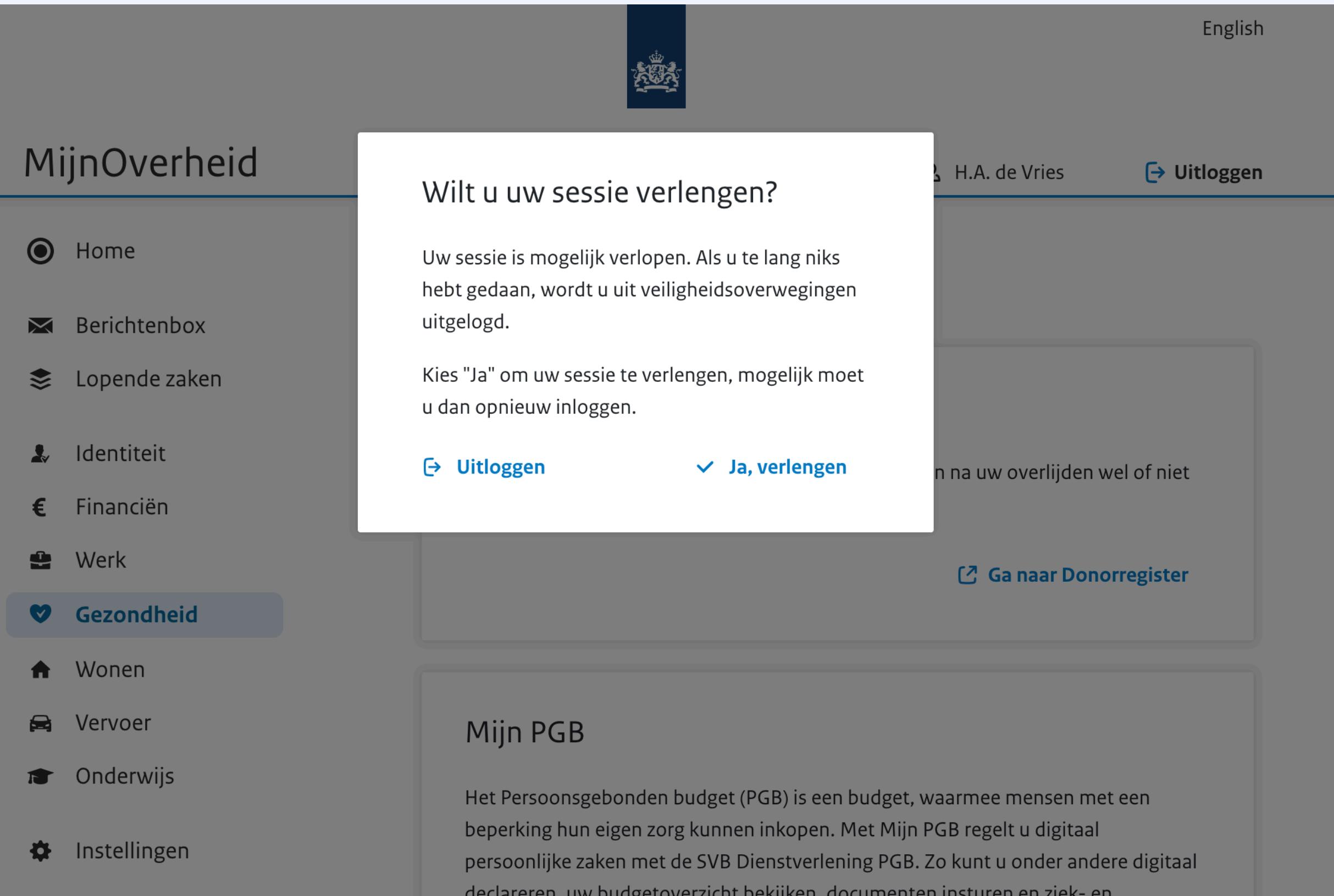
also top layer,  
also top layer,  
also top layer,  
also top layer,

**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**

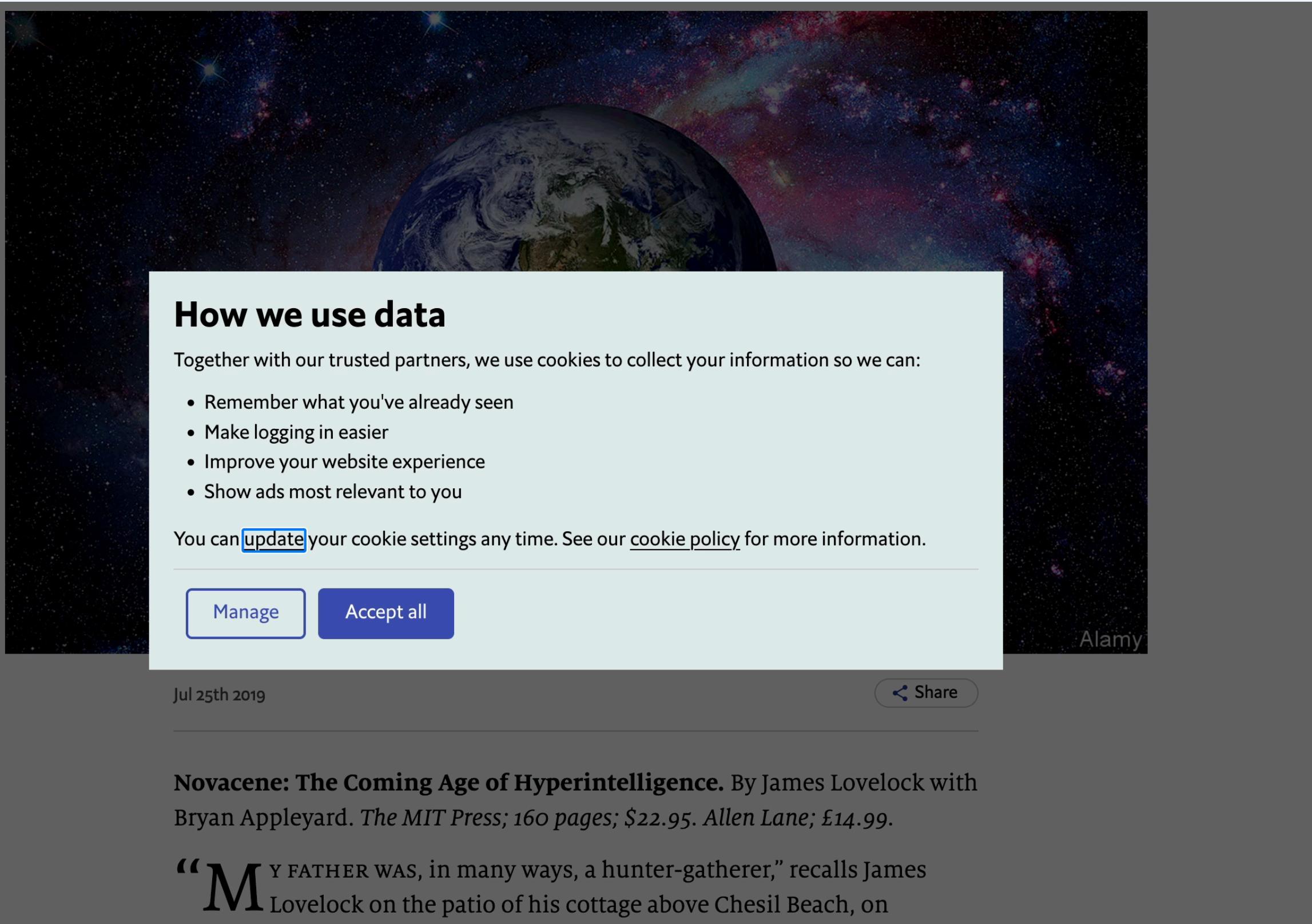
**LIGHT DISMISS** VS **EXPLICIT DISMISS**

**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()

L1

SS

VS

EX

<dialog>  
with show()

MISS

Z-INDEX

VS

TO

popover

## BACKDROP

## KEYBOARD FOCUS TRAP

**MODAL** VS **NON-MODAL**

**LIGHT DISMISS** VS **EXPLICIT DISMISS**

`popover="auto"`

VS

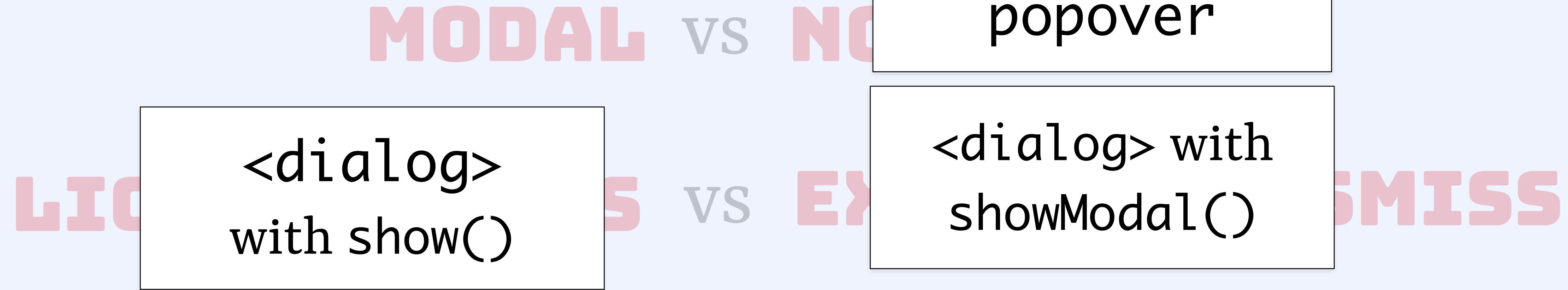
`popover="manual"`

**TOP LAYER**

`any <dialog>`

**BACKDROP**

**KEYBOARD FOCUS TRAP**



**Z-INDEX** vs **TOP LAYER**

**BACKDROP**

**KEYBOARD FOCUS TRAP**

**MODAL** VS **NON MODAL**

browser provided  
w/ ::backdrop

**LIGHT DISMISS** VS **EXPLICIT**

popover

consider if modal  
<dialog> not better

**Z-INDEX** VS **TOP POSITION**

<dialog> with  
showModal()

## BACKDROP

**KEYBOARD FOCUS TRAP**

**MODAL** VS **NON MODAL**

browser provided  
w/ ::backdrop

**LIGHT DISMISS** VS **EXPLICIT**

popover

consider if modal  
<dialog> not better

**Z-INDEX** VS **TOP POSITION**

<dialog> with  
showModal()

## BACKDROP

**KEYBOARD FOCUS TRAP**

**MODAL** VS **NON-MODAL**

**LIGHT DISMISS** VS **EXPLICIT DISMISS**

**Z-INDEX** VS **TOP**

**BACKDROP**

browser provided

<dialog> with  
showModal()

**KEYBOARD FOCUS TRAP**

# SEMANTICS

“What is this thing?”

“What is this thing  
on the page?”



<h1>

*heading*

<h1>

*heading*



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%

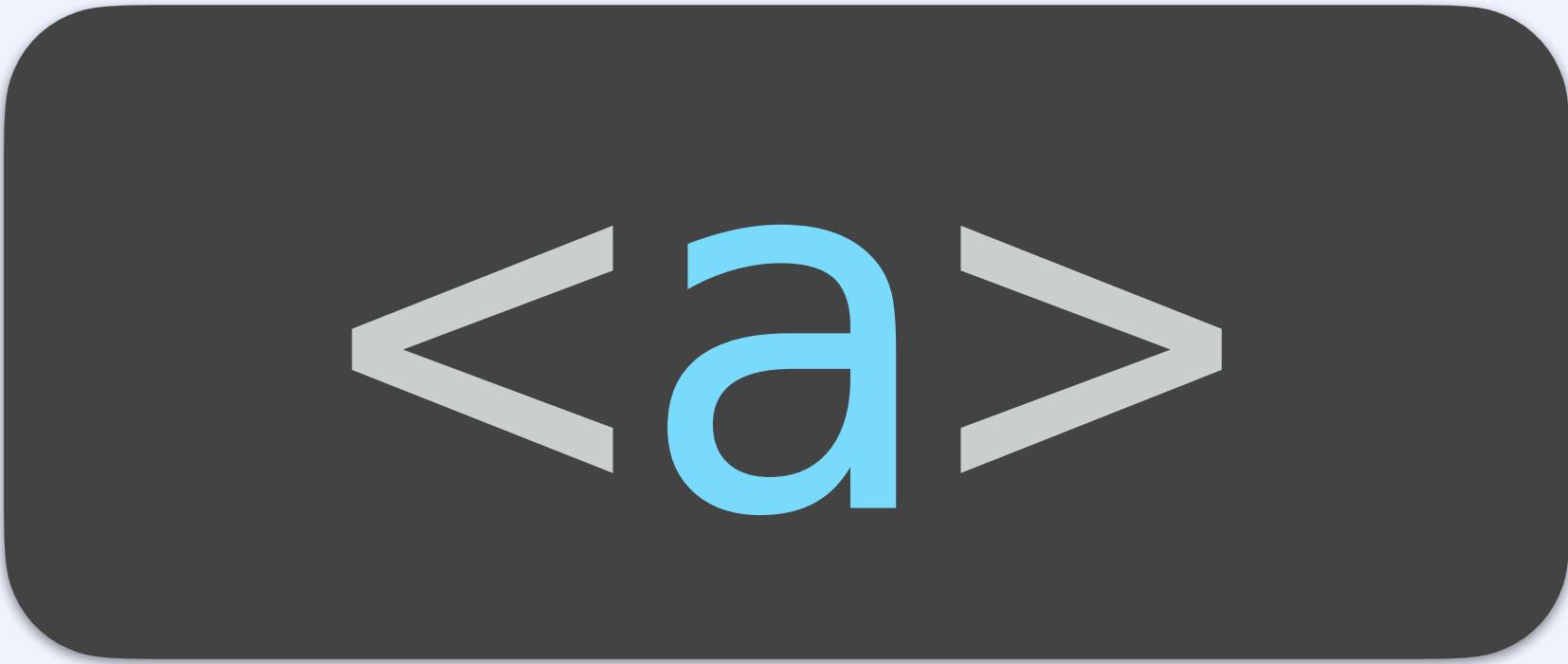
weighted average for [70 services out of 114](#)

## 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](#)



<a>

*link*



<li>

*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"

To Berlin

Return journey ⓘ – Tue, 16. May 2023

Passengers, discounts & bicycles – 3 Adults

change ພົມບັນຍາ

Adults (15 years +)

female: - 2 +

male: - 1 +

Bicycles

- 0 +

overnight  
Night coaches and day coaches allow you to sleep safely and tight, and providing excellent service to make your journey as pleasant as possible. Depending on your preferred level of comfort, you can travel

Done >

# 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 science. In the 1970s, he began looking for life on other planets by studying the composition of the atmosphere. His nomination to Britain's Royal Society was based on his work in chemistry and physics—all because of his love of science. He is best known (it is named after Gaia).

## Listen to this story ×

Save time by listening to our audio versions of our most popular articles as you multitask

OK

Velock honed a method to find and quantify CFCs in the atmosphere. He has also conducted a great deal of work in biology, particularly in the field of ecology, theory for which he is best-known (it is named after Gaia).

Business Agents site In het Nederlands

Discover Travel information Customer service

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"

The image displays two examples of listbox components. On the left, a dropdown menu titled "Categories" is shown, listing various topics with "Developers" selected. On the right, a multi-select dropdown for "Passenger 1" shows a list of age groups, with "Adult (26 - 59 years)" selected. Both examples illustrate how listbox components wrap their choice options.

**Categories**

- ✓ Select Category
- Accessibility
- Corporate
- Data
- Developers**
- Events
- Immersive Web
- Internationalization
- Privacy and Security
- Systems
- Testing
- Tools
- TPAC
- Training
- Tutorials
- Uncategorized

**Passenger 1**

Adult (26 - 59 years)

Senior (65 years and older)

Senior (60 - 64 years)

**Adult (26 - 59 years)**

Youth (16 - 25 years)

Youth (15 years)

Child (12 - 14 years)

Child (6 - 11 years)

Child (4 or 5 years)

**Passenger 2**

Disruption

Number 1

Compare E

Transfer X

Country of the bank of the recipient

Netherlands



Amount

1,337.00

Currency

EUR (Euro)

USD (United States dollar)

Recipient's name

**LISTBOX**

role="listbox"

# LISTBOX

role="listbox"

A screenshot of a web application interface titled "Hidde's concerts & books". The main search bar contains the text "je". Below it, a "Manage contents" sidebar lists "Book" and "Concert" categories. A large pink bracket on the left side of the screenshot spans from the sidebar to the bottom of the listbox area, highlighting the entire list component. The list itself is titled "Best match" and contains four items:

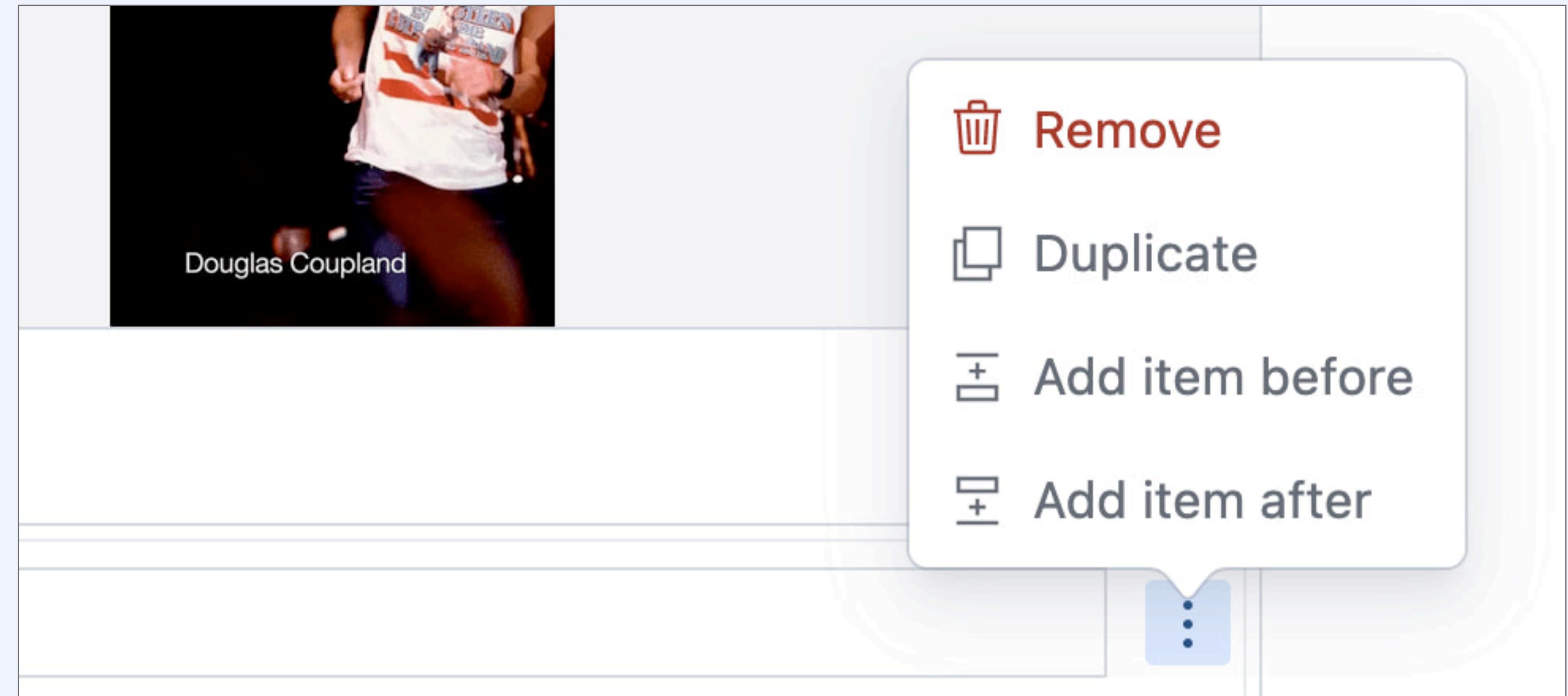
- Jeff Mills (ARTIST)
- Jeff Neve (ARTIST)
- De Jeugd van Tegenwoordig (ARTIST)
- Oscar Jerome (ARTIST)

The interface includes a "Clear filters" button and a "Add filter" section.

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

# MENUS

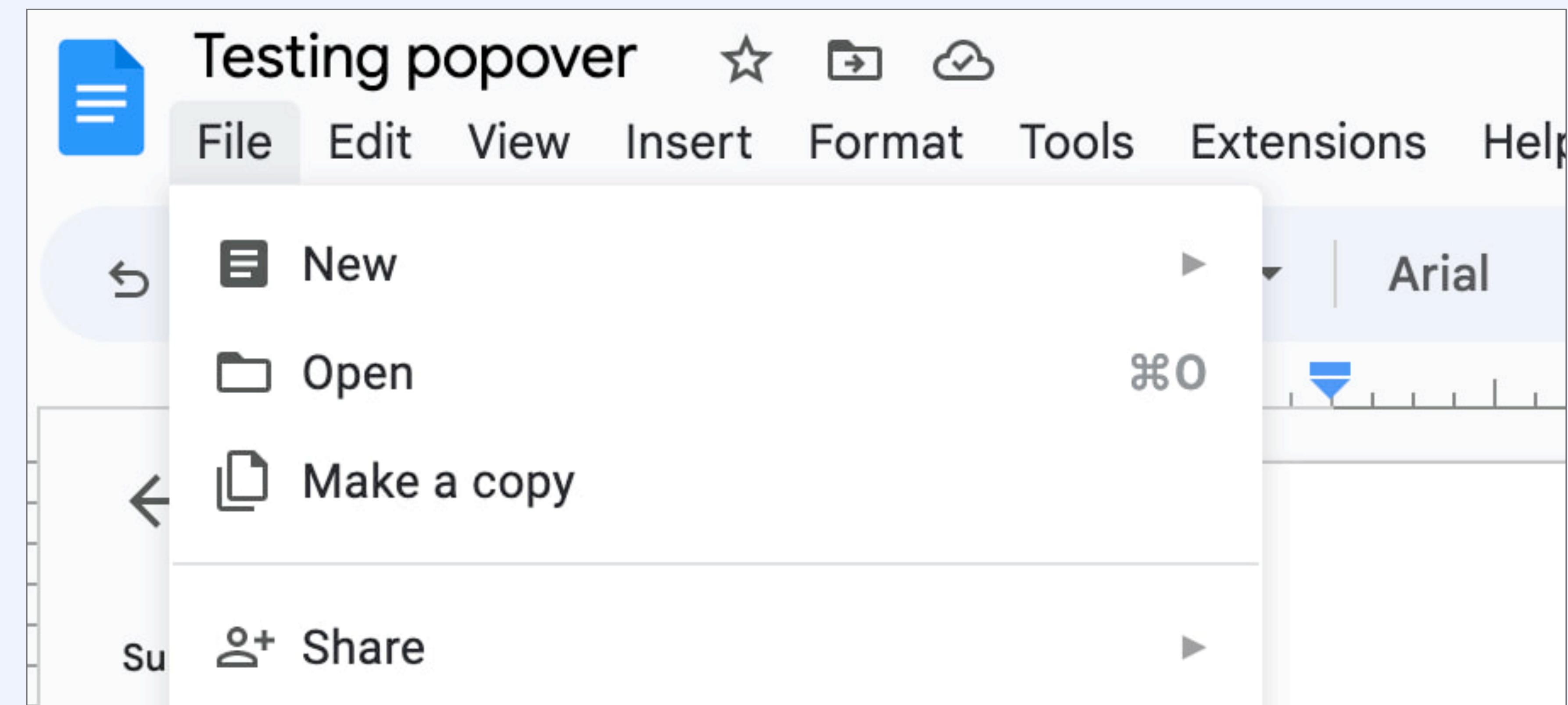
role="menu"



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

# MENUS

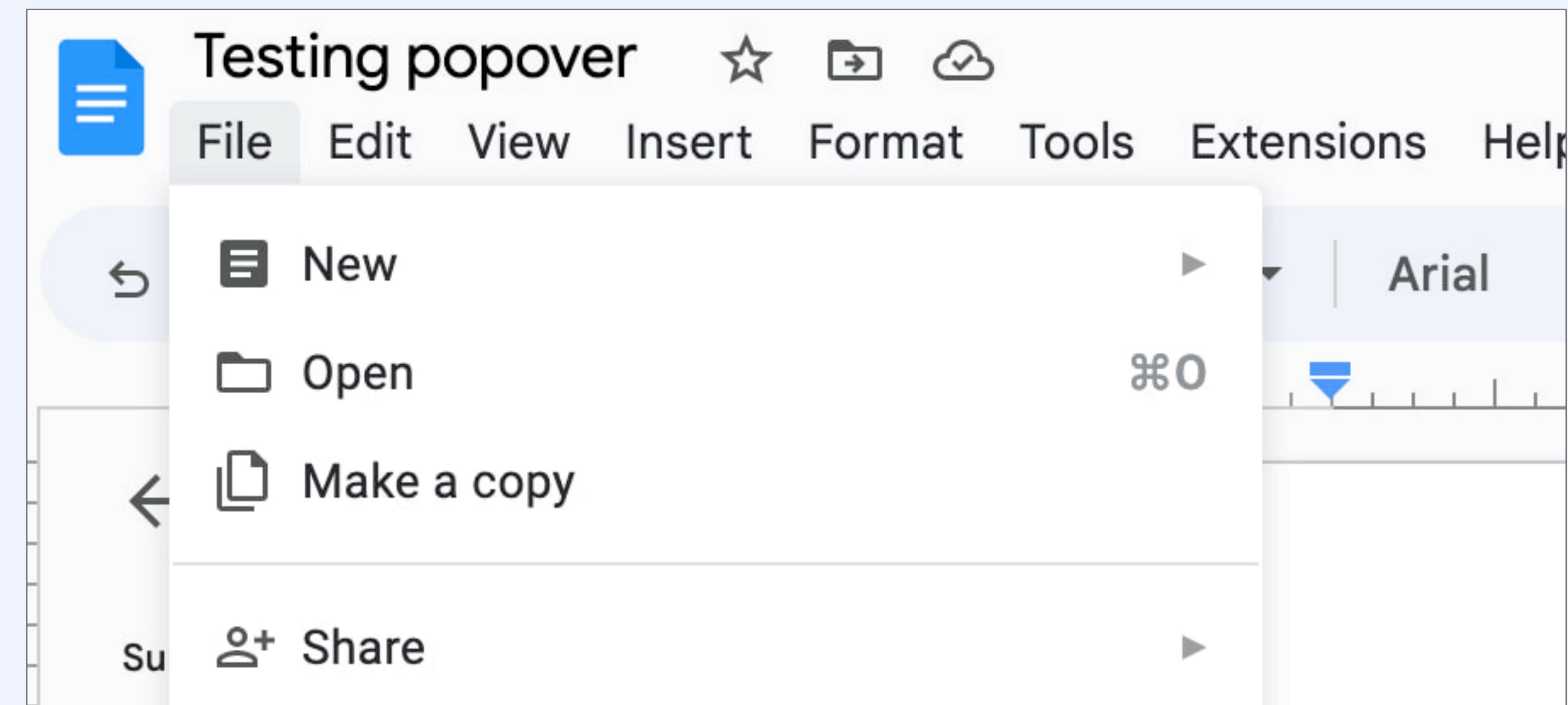
role="menu"



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).

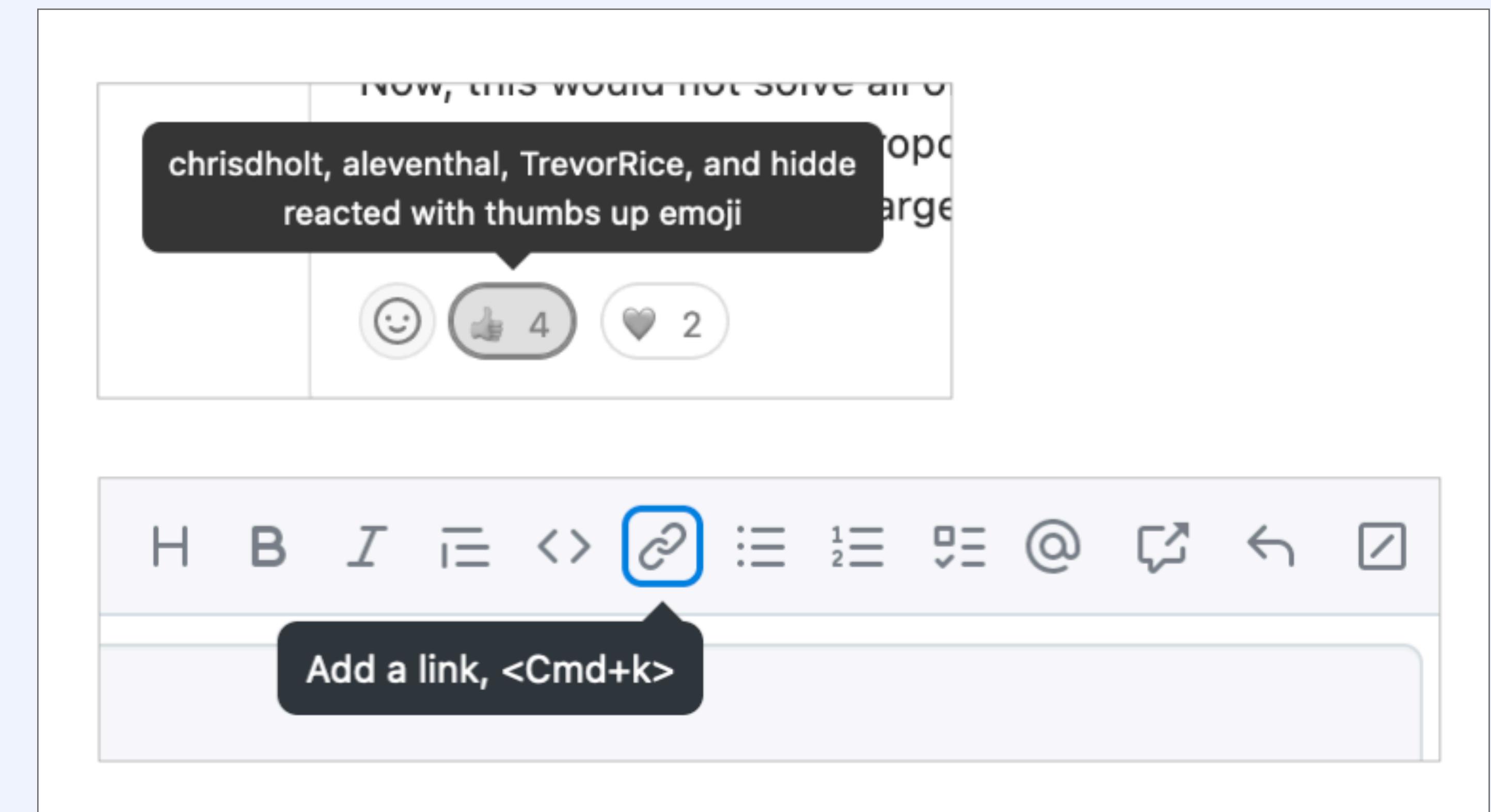
# MENUS

`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 sparingly

# Plain text suggestions

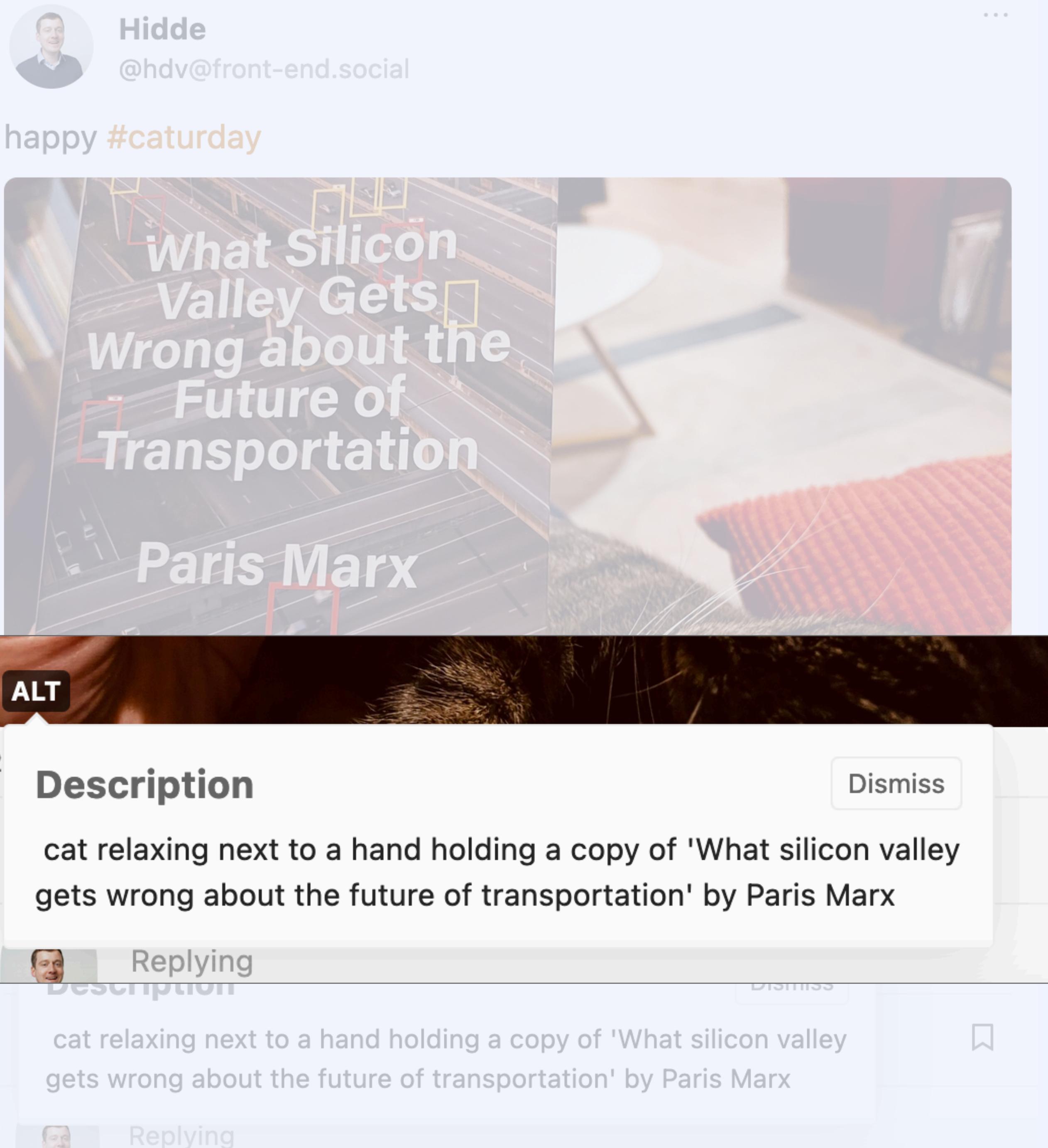
**TOOLTIPS**  
role="tooltip"



# TOOLTIPS

role="dialog"

## More than plain text, maybe better as togglertips



## DIALOGS

<dialog> or  
role="dialog"

## MENUS

role="menu"

## TOOLTIPS

role="tooltip"  
role="dialog"

# SEMANTICS

<dialog>

---

dialog (implicit)

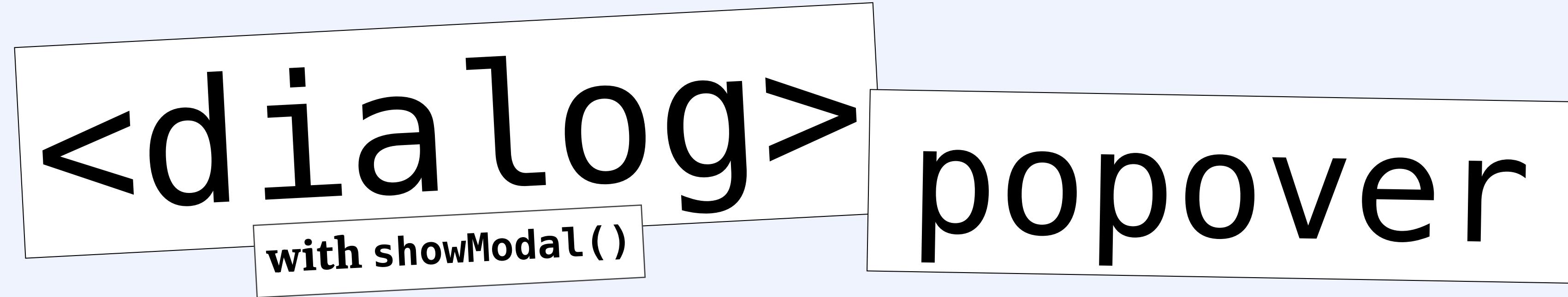
popover

---

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

---

# POSITIONING



Both are *centered*  
by default

localhost

live music

(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

**Lianne La** in Rotterdam

localhost

live  
music

(Work in progress) [Home](#)

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



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



**Roosheef** in Groningen  


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



**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



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

The screenshot shows a web application for live music concert listings. The interface is dark-themed with white and light-colored text. At the top left is a logo for "HIDDEN LOGS live music". Below it, a message says "(Work in progress) [Home](#)". The main content area displays five concert entries:

- Froukje** in Zwolle ★★★★  
on 2023-05-05 at Park de Wezenlanden.  
Bevrijdingsfestival in Zwolle
- EELS** in Amsterdam ★★★★  
on 2023-04-07 at AFAS Live
- Roosheef** in Groningen
- Spinvis** in Woerden ★★★★★  
on 2023-04-15 at Het Klooster
- 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

```
// 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>
```

localhost

live music

(Work in progress) [Home](#)

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

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

**Roosheef** in Groningen

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

**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

```
// 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>
```

localhost

live music

(Work in progress) [Home](#)

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

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

Roosheef in Groningen

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

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

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

The screenshot shows a web application for live music reviews. At the top left is the logo "HIDDEN LOGS live music". Below it, a link "(Work in progress) Home". The main content displays five concert reviews:

- Froukje** in Zwolle ★★★★  
on 2023-05-05 at Park de Wezenlanden.  
Bevrijdfestival in Zwolle
- EELS** in Amsterdam ★★★★  
on 2023-04-07 at AFAS Live
- Roosheef** in Groningen
- Spinvis** in Woerden ★★★★★  
on 2023-04-15 at Het Klooster
- 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

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

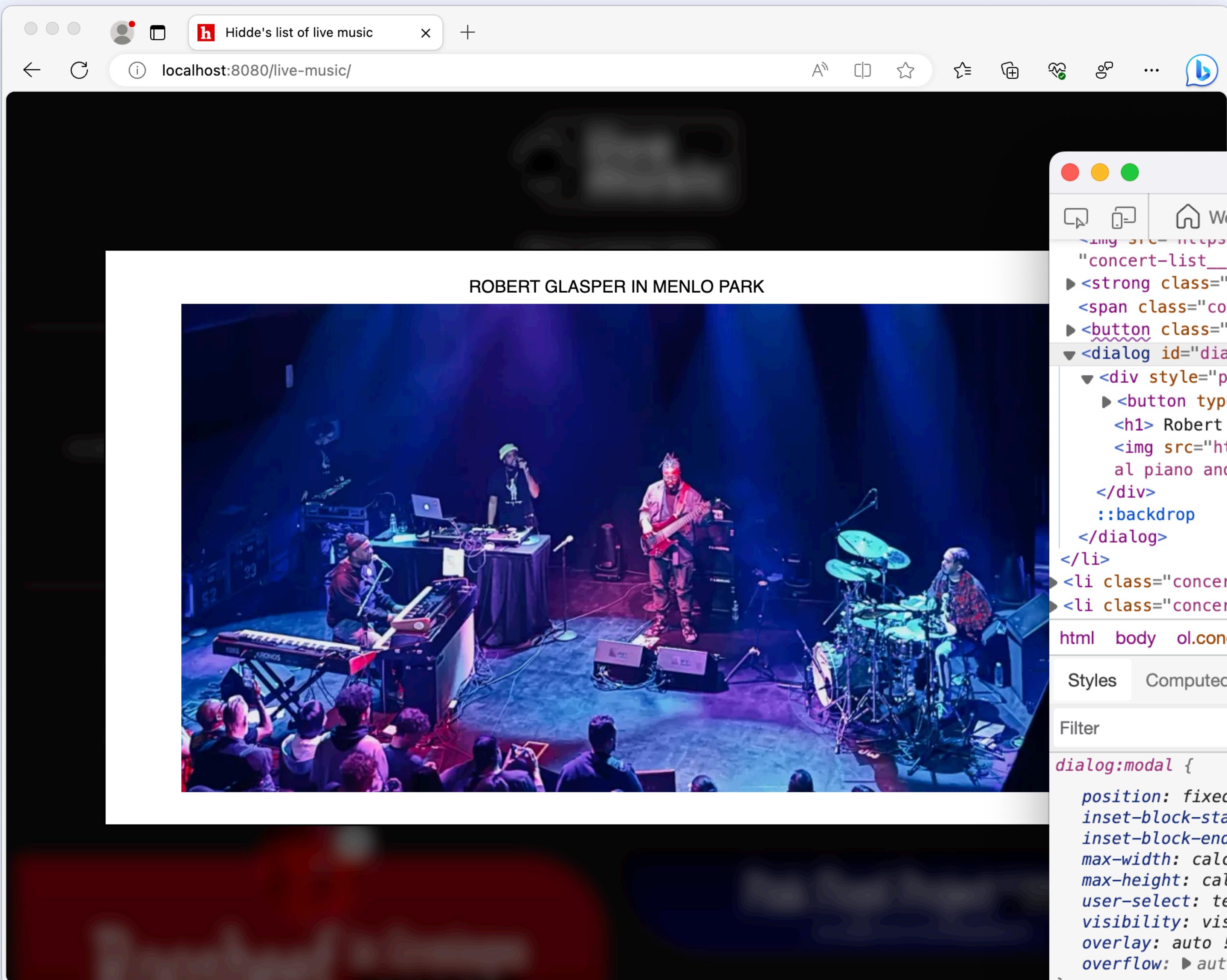
for (let i = 0; i < dialogOpeners.length; i++) {
  const opener = dialogOpeners[i];
  const correspondingDialog =
    document.querySelector(
      `#${opener.getAttribute('data-dialogtarget')}`);
}
```

The screenshot shows a web application for a concert database. The interface is dark-themed with white and light-colored text. At the top left is a logo for "HIDDEN LOGS live music". Below it, a navigation bar includes a link to "(Work in progress) Home". The main content area displays five concert entries:

- Froukje** in Zwolle ★★★★  
on 2023-05-05 at Park de Wezenlanden.  
Bevrijdingsfestival in Zwolle
- EELS** in Amsterdam ★★★★  
on 2023-04-07 at AFAS Live
- Roosheef** in Groningen  
A red card with a white border.
- Spinvis** in Woerden ★★★★★  
on 2023-04-15 at Het Klooster
- 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

```
// 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();
  });
}
```



DevTools - localhost:8080/live-music/

Elements

```
"concert-list__img">
  <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" aria-la
  <dialog id="dialog-2022-02-25-1410" style="padding: 0;" open> top-layer (1) == $0
    <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
    </dialog>
  </li>
<li class="concert-list__item">...</li> flex
<li class="concert-list__item">...</li> flex
```

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 {**

*user agent stylesheet*

```
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] {**

*user agent stylesheet*

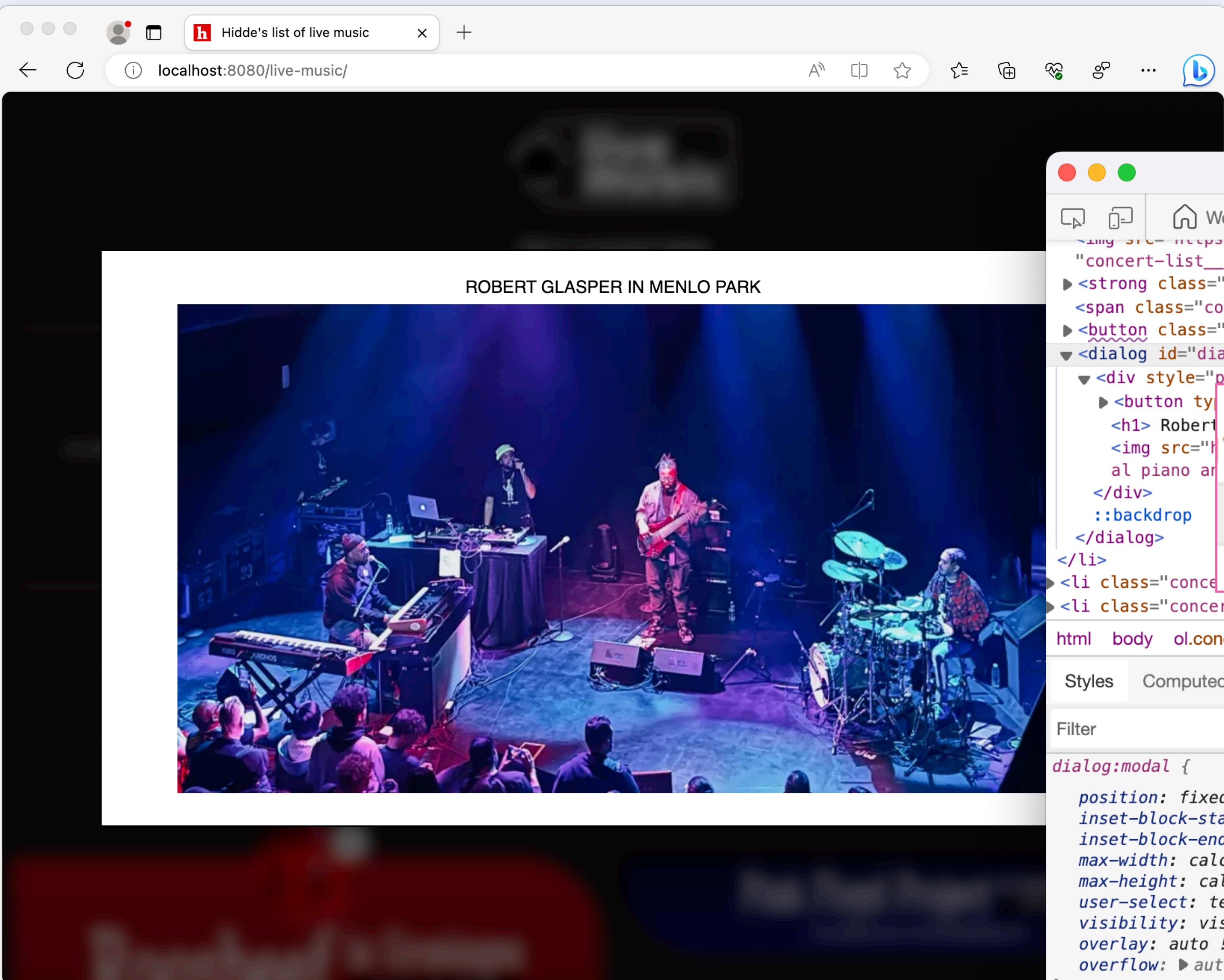
```
display: block;
```

}

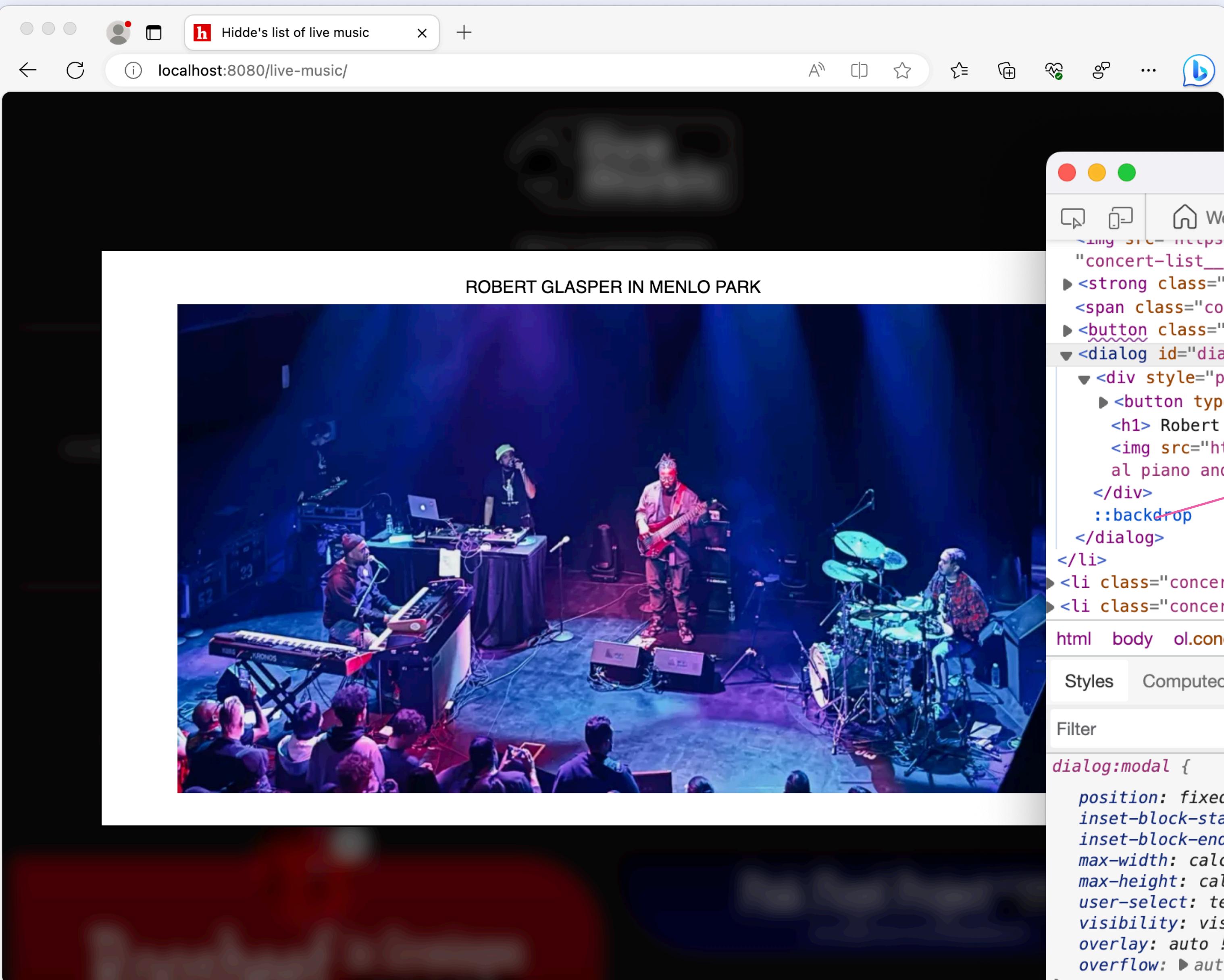
**dialog {**

*user agent stylesheet*

```
display: none;
```



@hdv@front-end.social



@hdv@front-end.social

DevTools - localhost:8080/live-music/

The screenshot shows the Chrome DevTools Elements tab with the following DOM structure:

```
Robert Gon 2022-02-25 at The Guild Theatre</button>
```

The `<strong>` element has a yellow warning icon above it. The `<button>` element has a grey info icon above it. The `<div>` element under the `<strong>` has a pink border around its content.

Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility

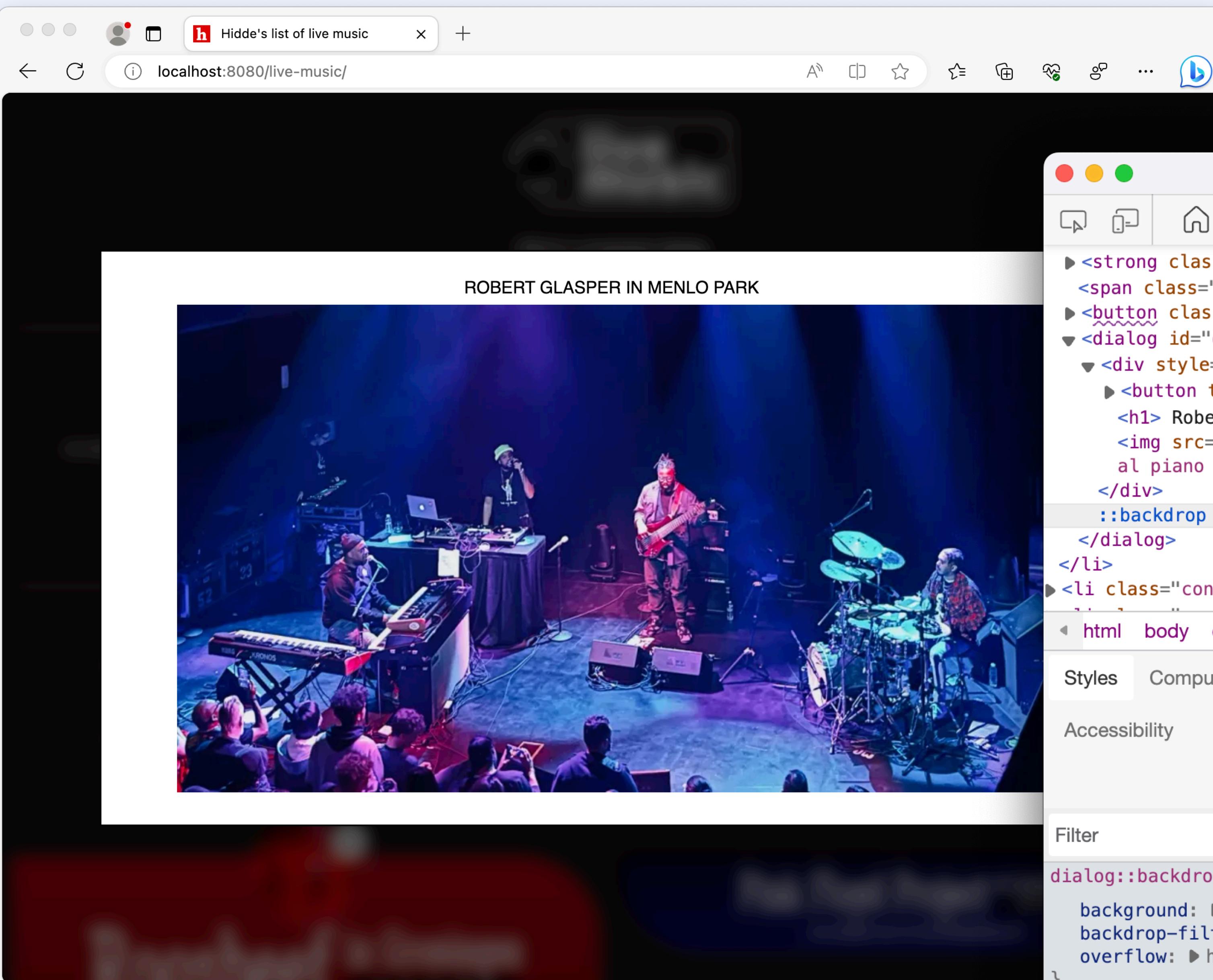
Filter

:hov .cls + ↗

```
dialog:modal { user agent stylesheet
  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] { user agent stylesheet
  display: block;
}

dialog { user agent stylesheet
  display: none;
}
```



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>
      
    </div>
    ::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

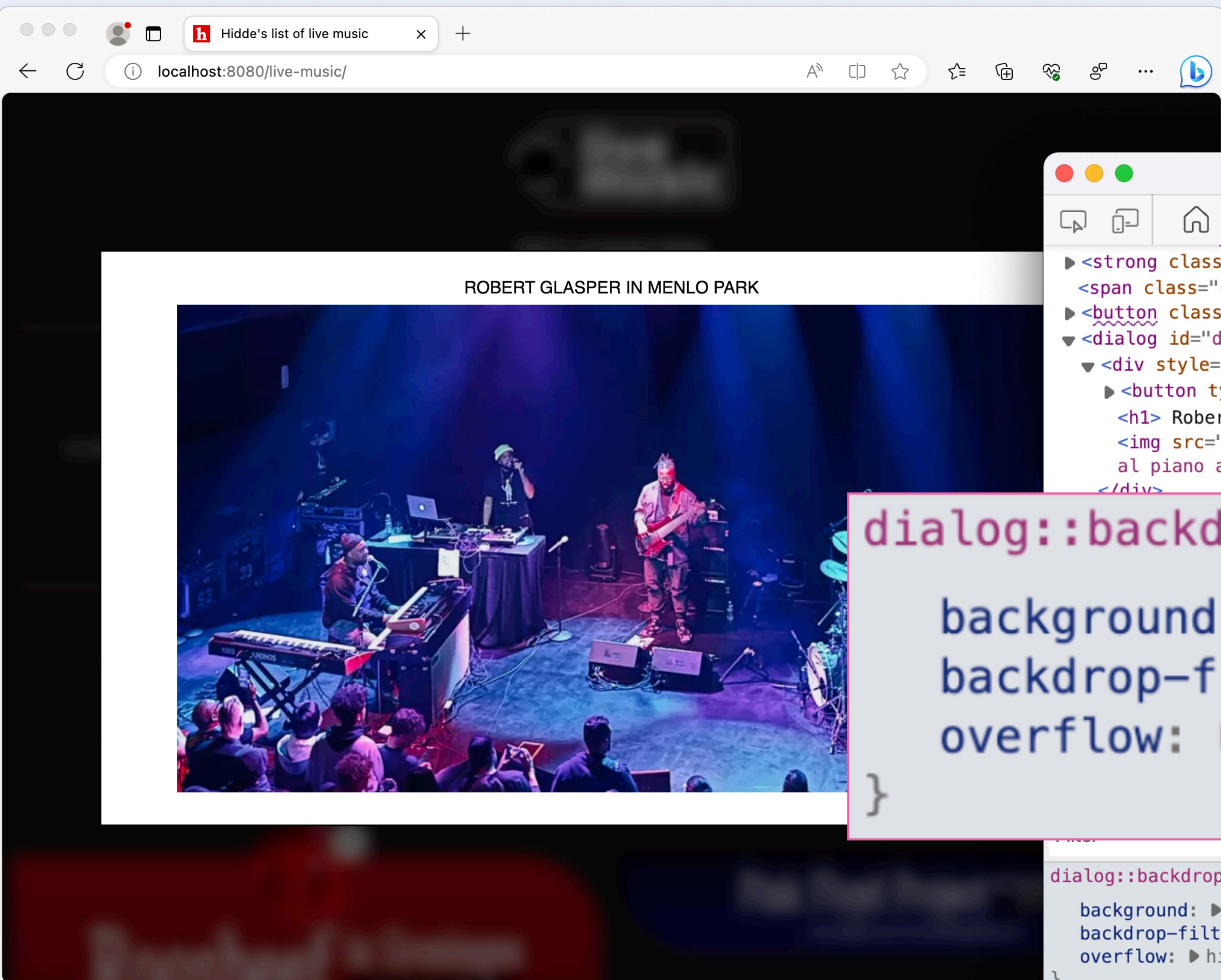
Accessibility

Filter :hov .cls + ↗ (index):52

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

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

user agent stylesheet



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>
      
    </div>
```

dialog::backdrop {

background: ▶ ■ rgba(0,0,0,0.6);

backdrop-filter: blur(.5em);

overflow: ▶ hidden;

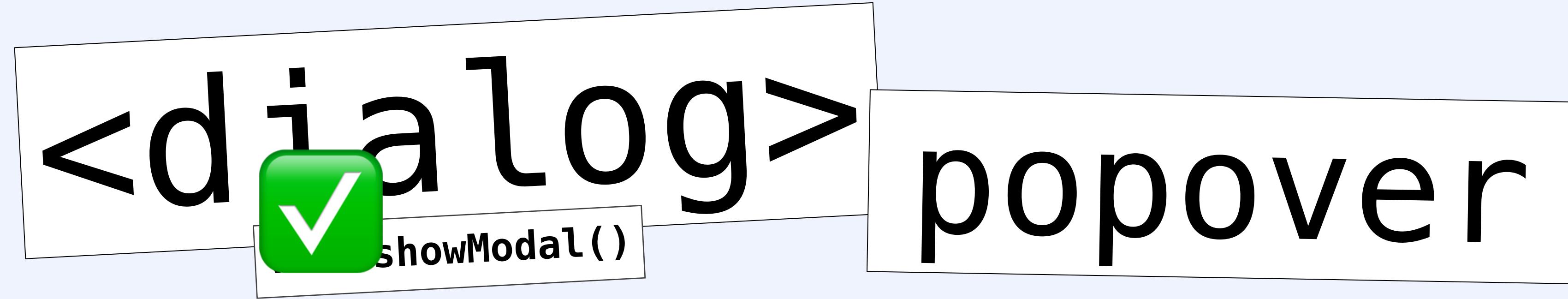
}

(index):52

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

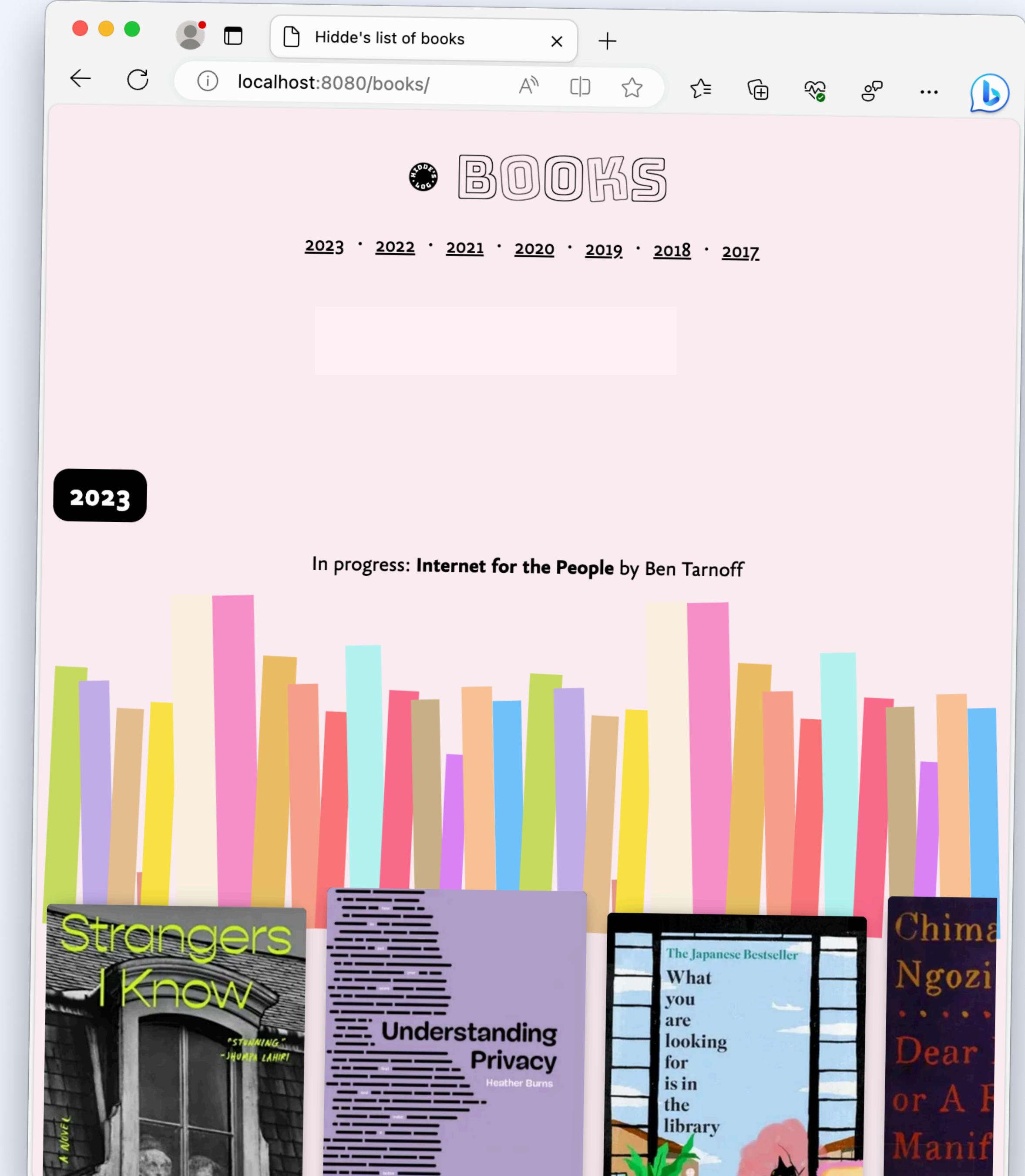
user agent stylesheet

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



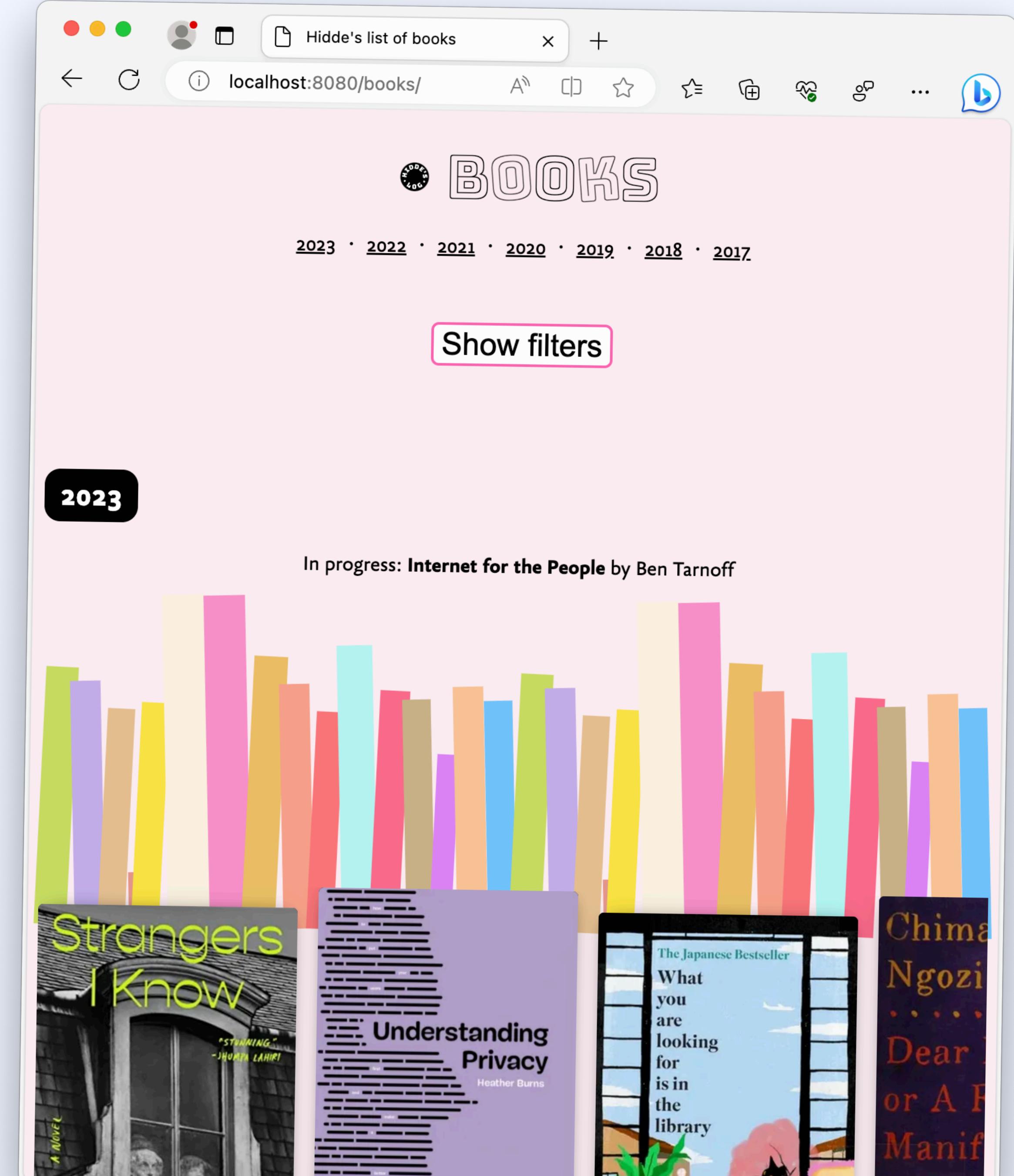
Both are *centered*  
by default

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



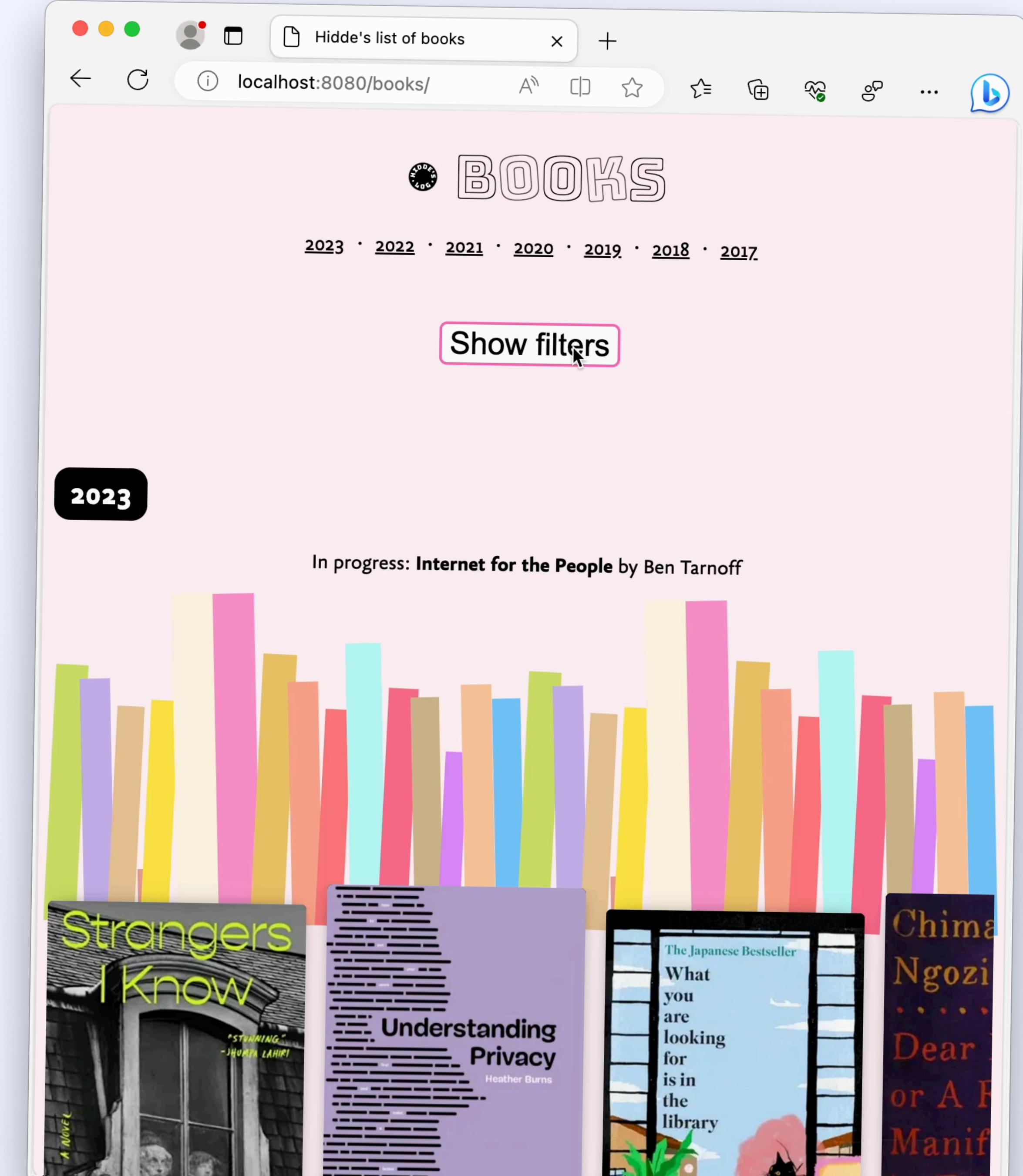
```
// book-list.njk
...
<button type="button" popovertarget="filters">
  Toggle filters
</button>

<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>
...
```



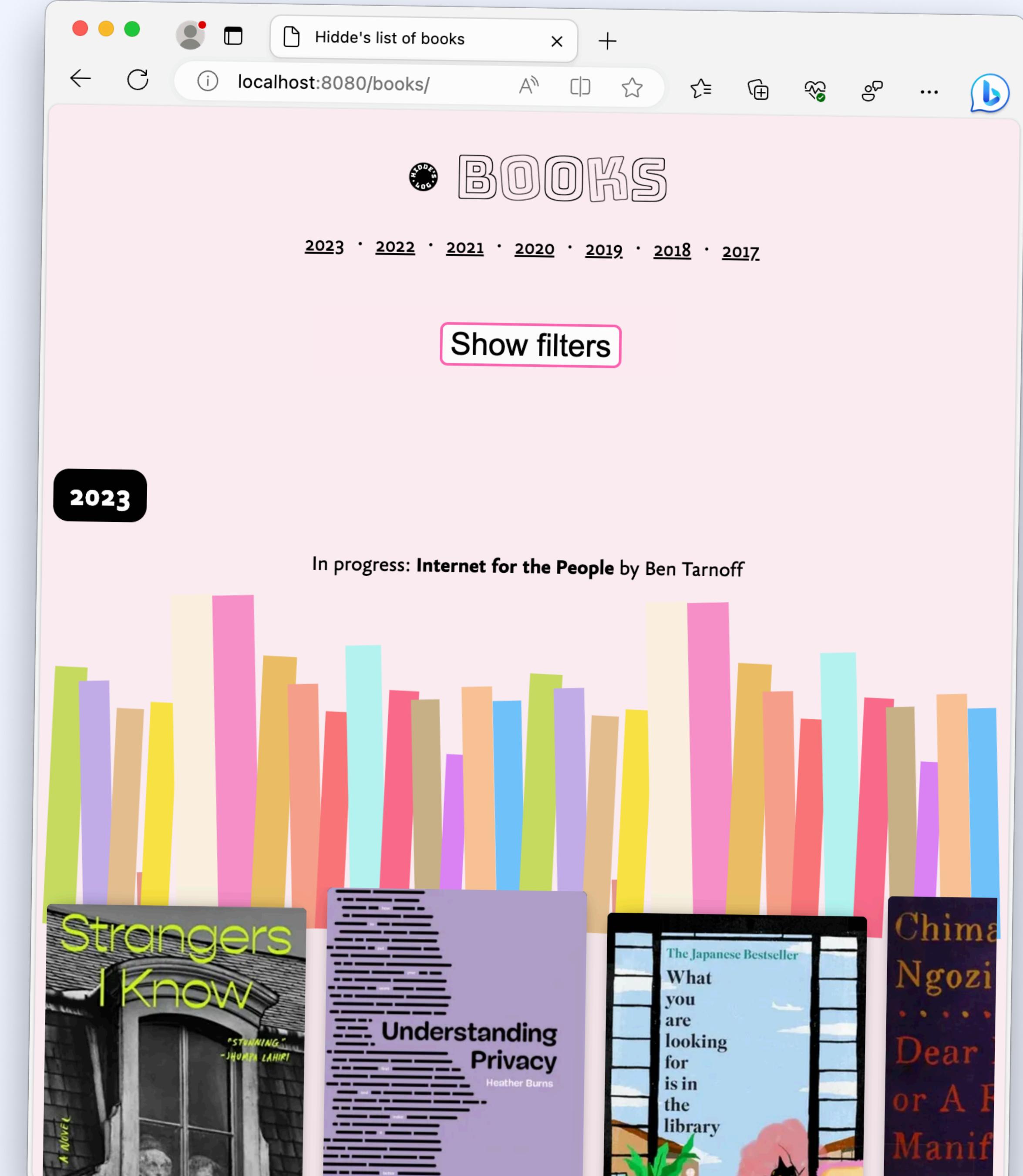
```
// book-list.njk
...
<button type="button" popovertarget="filters">
  Toggle filters
</button>

<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>
...
```



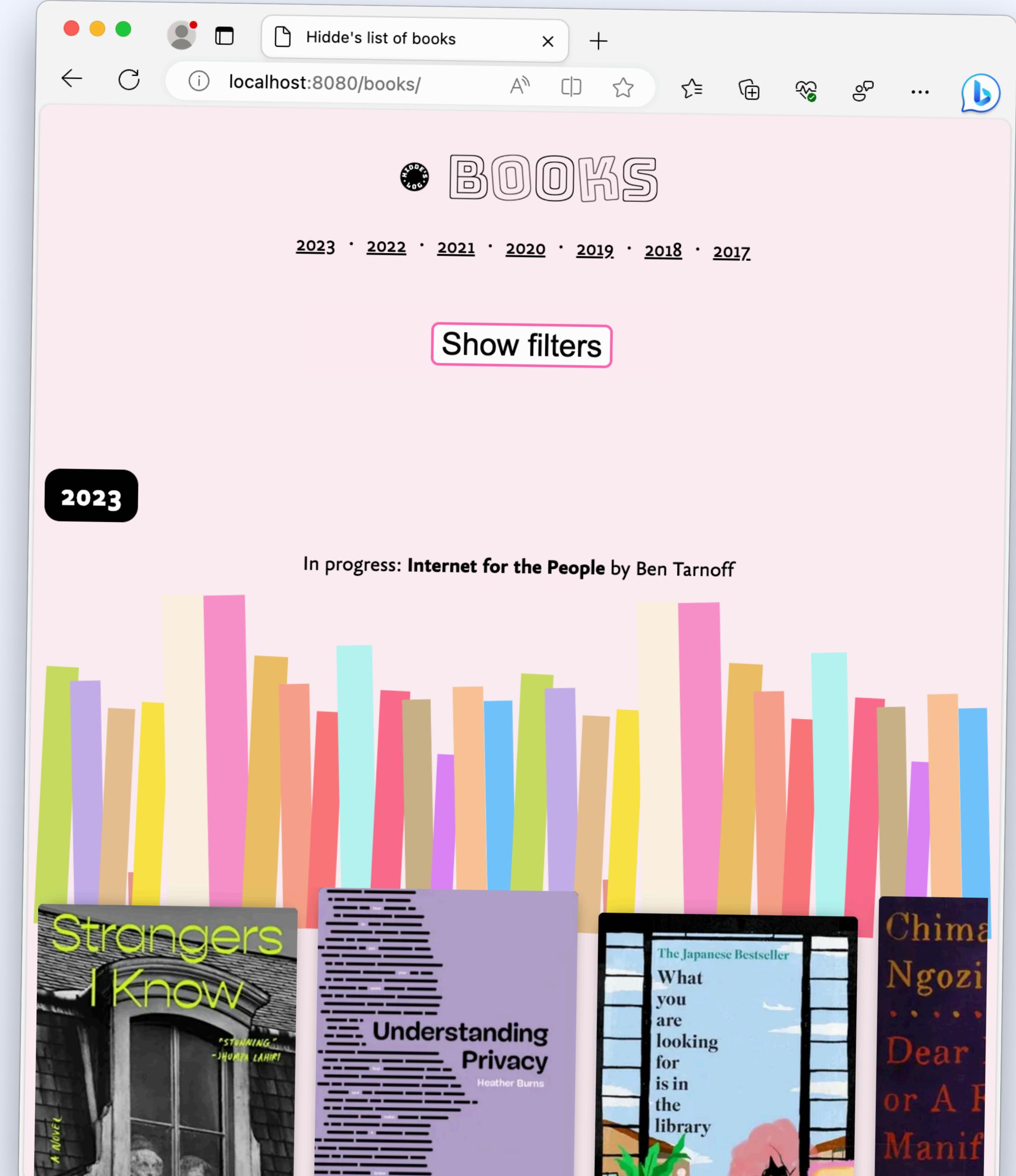
```
// book-list.njk
...
<button type="button" popovertarget="filters">
  Show filters
</button>

<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>
...
```

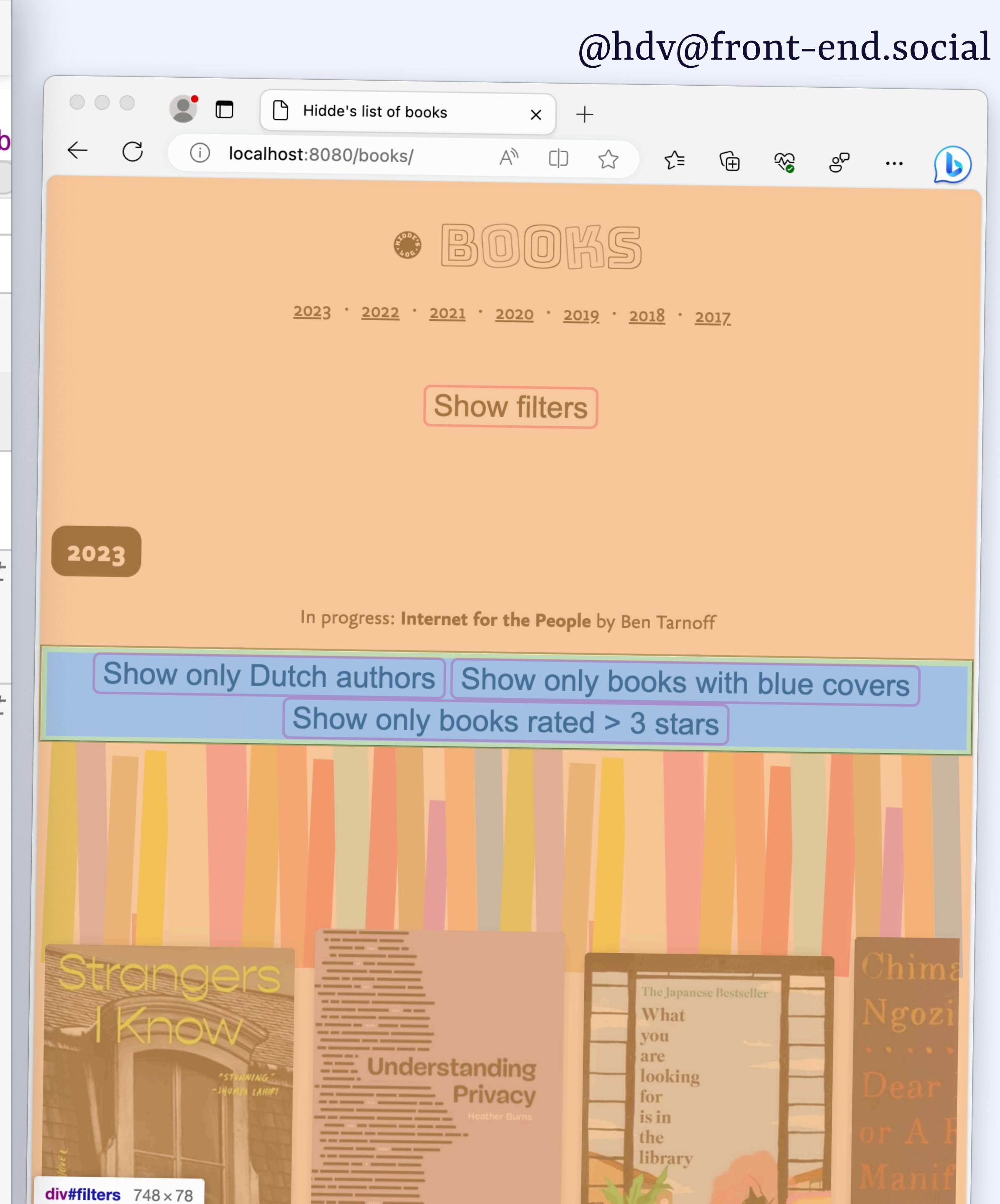


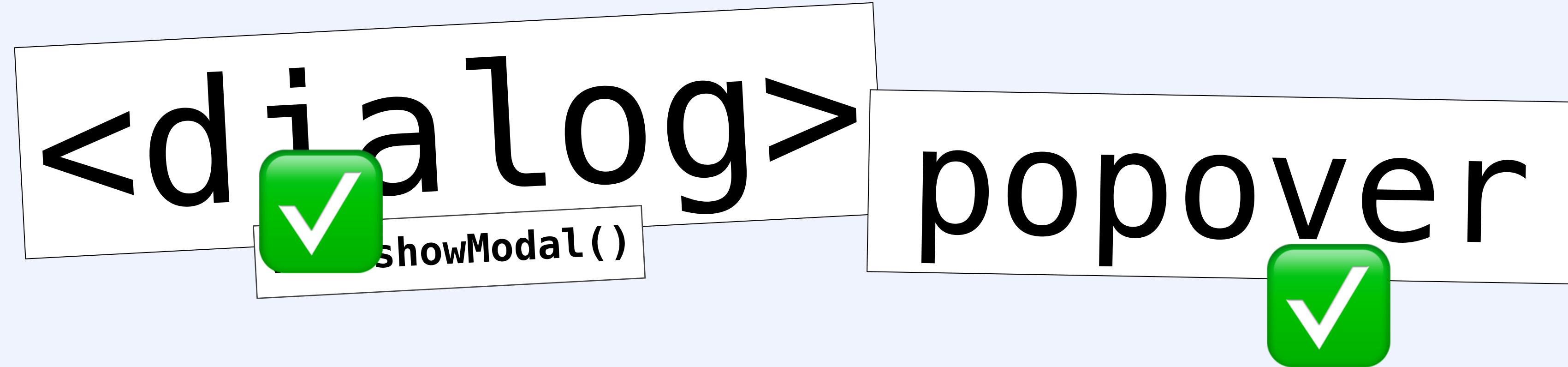
Elements

Styles Computed Layout Event Listeners DOM Breakpoints

Filter :hover .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;  
}
```





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';

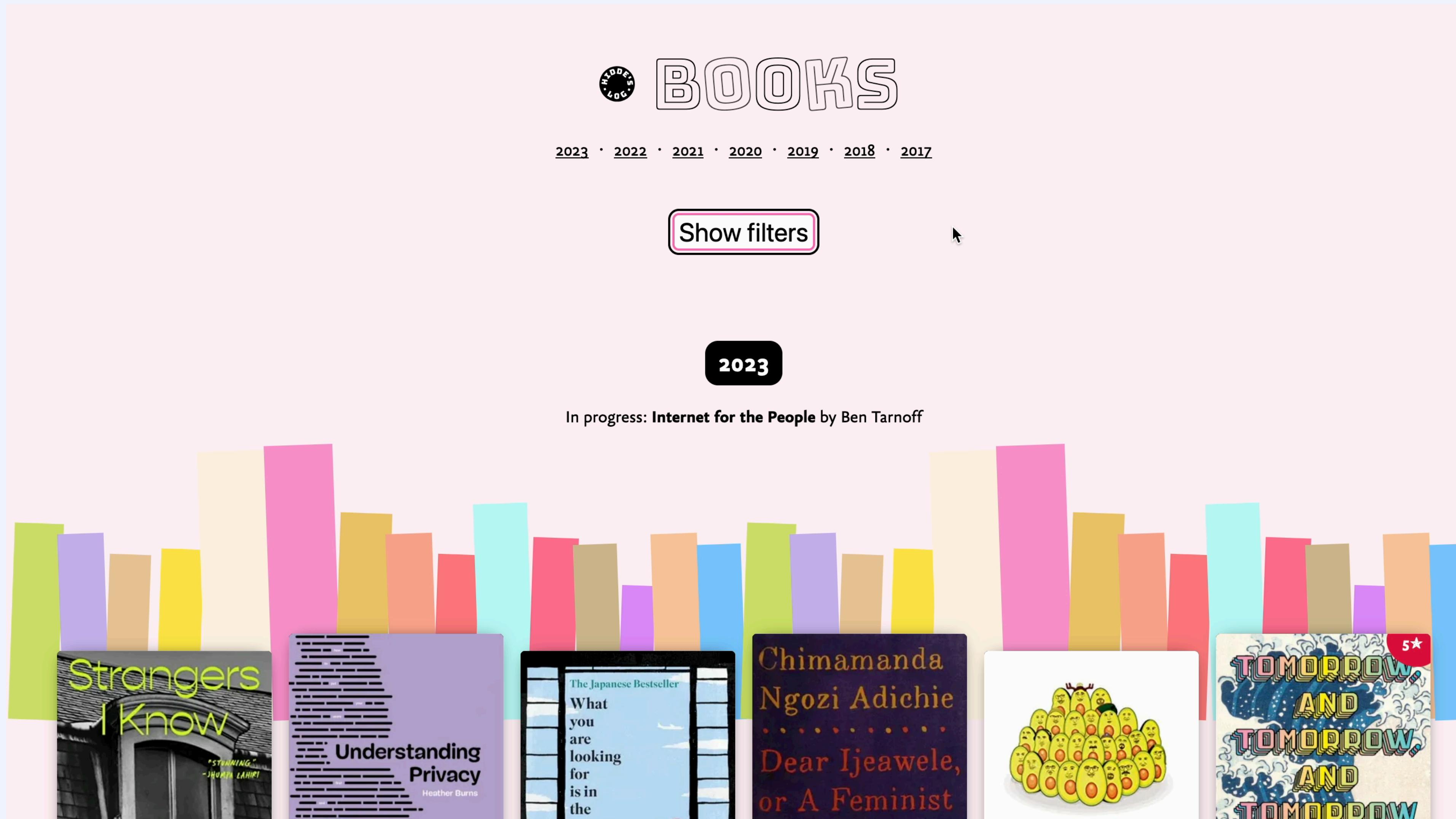
  const popover = document.querySelector('[popover]');

  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)

The screenshot shows a web application interface for a book store. At the top left, there's a logo with the word "HODDE" and a circular icon. Next to it is a large, stylized word "BOOKS". Below the logo, there's a navigation bar with links for the years 2023, 2022, 2021, 2020, 2019, 2018, and 2017. In the center, there's a button labeled "Show filters". To the right of the button, there's a dark box containing the year "2023". At the bottom left, there's a progress bar for a book titled "Internet for the People" by Ben Tarnoff. The main content area features several colorful bar charts representing different categories of books.

DevTools - localhost:8080/books/

Elements

```
<div popover role="menu" id="filters" style="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; user agent style">
```

Show filters

2023

In progress: Internet for the People by Ben Tarnoff

Chimamanda Ngozi Adichie  
Dear Ijeawele,

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

# POPOVER POSITIONING

## Option 2: anchor positioning

The screenshot shows a web browser window with the title "CSS Anchor Positioning" and the subtitle "Editor's Draft, 17 May 2023". A vertical red bar on the left contains the text "W3C Editor's Draft". The main content area includes sections for "More details about this document", "This version", "Issue Tracking", "Editors", and "Suggest an Edit for this Spec". At the bottom, there is a copyright notice and a "Table of Contents" icon.

[drafts.csswg.org/css-anchor-position-1/](https://drafts.csswg.org/css-anchor-position-1/)

The screenshot shows a web browser window with the title "Future CSS: Anchor Positioning" and the author "Roman Komarov" with a timestamp "March 15, 2023". The main content starts with a large letter "A" and the text: "Anchor positioning might be one of the most exciting features coming to CSS. It is currently available under an experimental flag in Chrome Canary, and after playing with it for a bit, I couldn't stop myself from sharing what I found. In this article, I will show you some of my experiments." Below this, there is a section titled "The Disclaimers" with a note: "This article is quite long! Before we dive in, I want to mention a few disclaimers: 1. My testing only covers what is present in [Chrome Canary](#)'s experimental implementation<sup>1</sup>. There is no guarantee that if things change, I will come back and modify the examples to work with the new version of the specs/implementation. Each demo comes with a video recording, allowing you to see how things work even if you cannot access this version of Chrome right now. However, I highly encourage you to test things out yourself in your own environment, as the results may vary." A small note at the bottom right says "Version 113.0.5653.0 at the time of publishing."

[kizu.dev/anchor-positioning-experiments/](https://kizu.dev/anchor-positioning-experiments/)

# POSITIONING

**modal <dialog>**

Centered

---

**non-modal <dialog>**

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

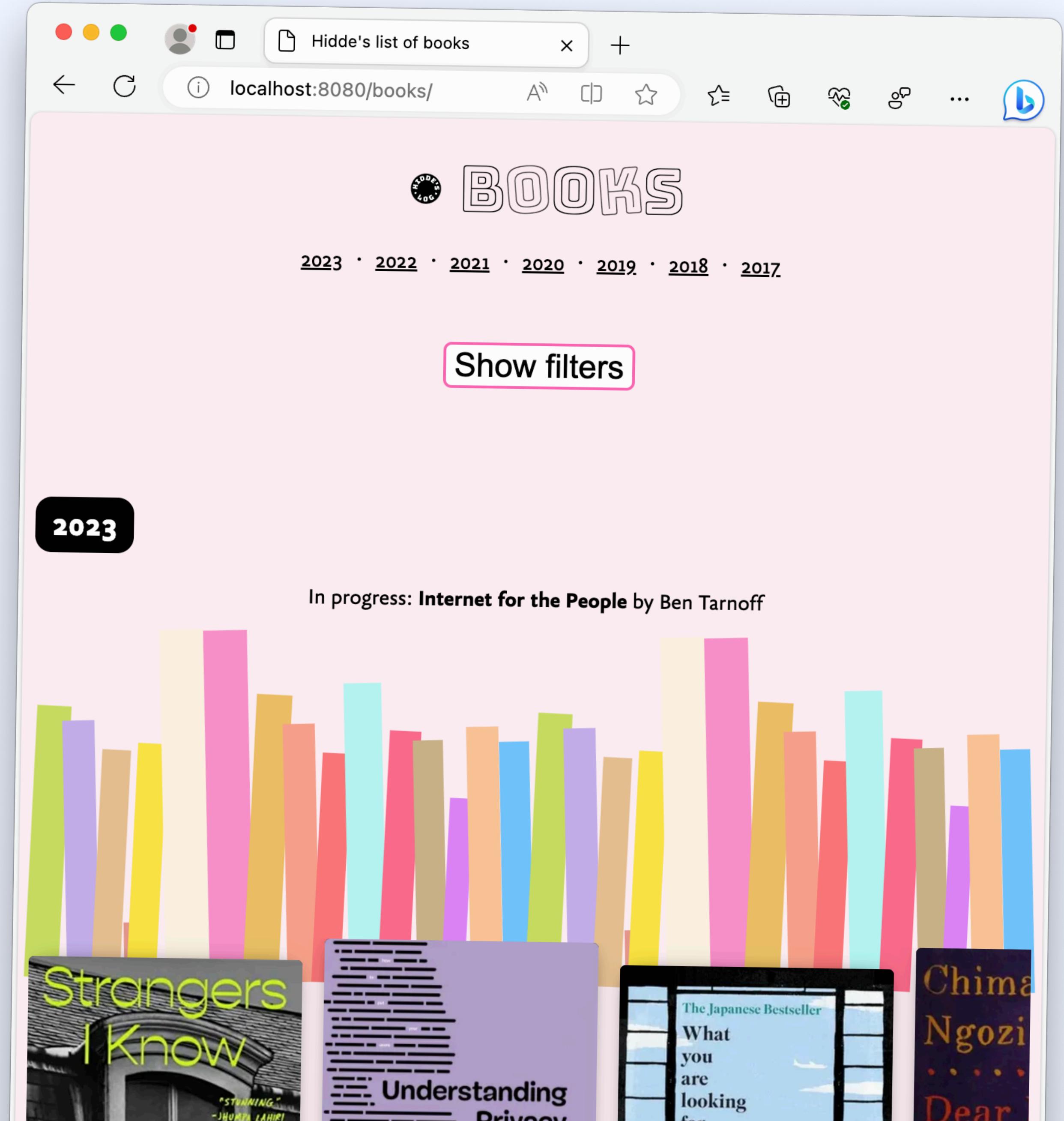
---

**popover**

Centered. Anchor with script now,  
later with anchor positioning

# <DIALOG> ON POPOVER

What if my session  
timed out?



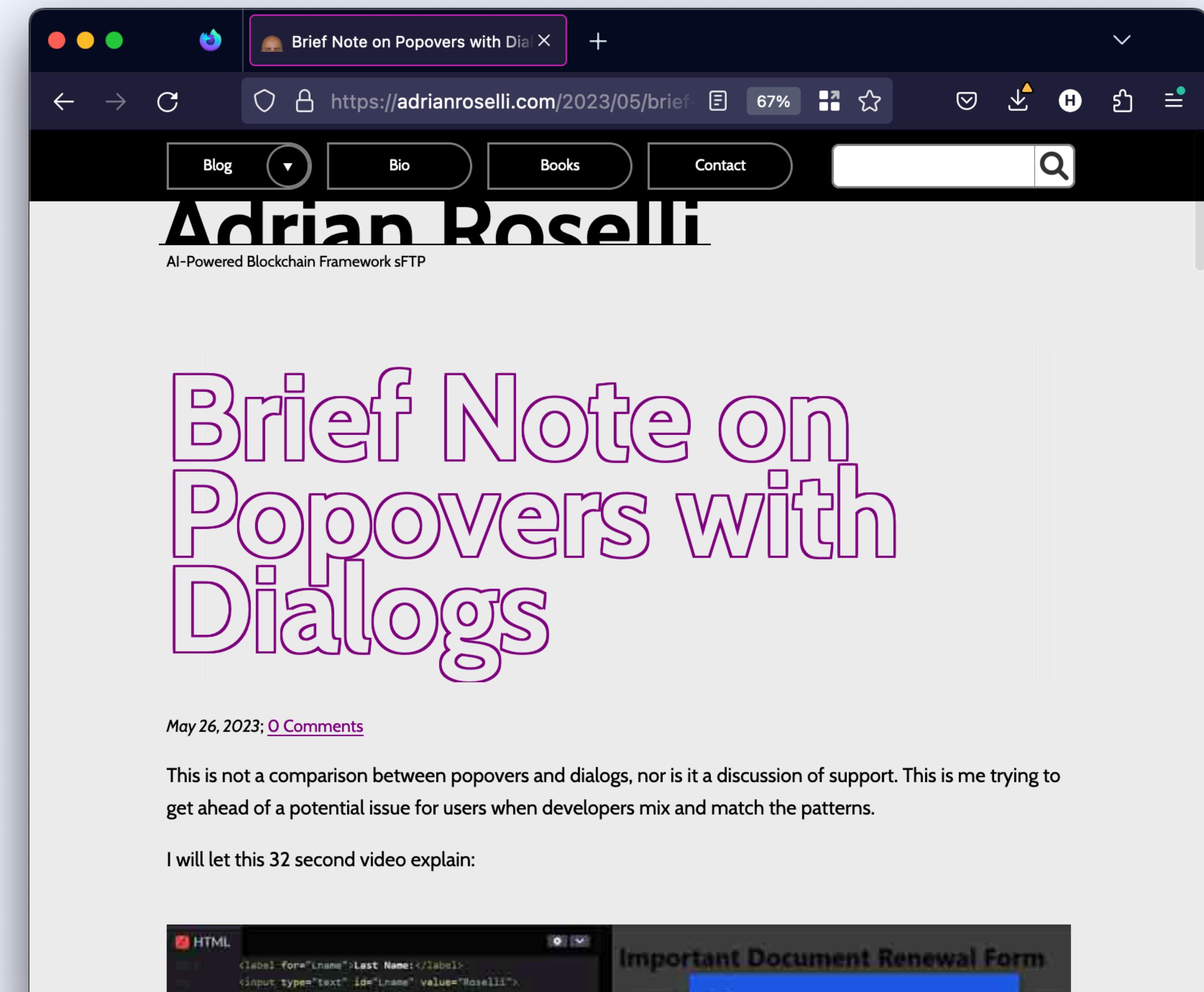
The screenshot shows a web browser window with a dark theme. The main content area displays a book catalog with a header "BOOKS" and a "Show filters" button. Below the header, there's a sidebar with the year "2023" and a message "In progress: Internet for the People by Ben Tarnoff". The main area features a grid of book covers and a bar chart at the bottom. The developer tools' "Elements" tab is active, showing the HTML structure of the page. The DOM tree includes the root element <!DOCTYPE html>, followed by <html lang="en">, <head>, and <body>. The body contains a header, a navigation section, a centered text div, and a series of sections labeled "year" for each year from 2023 down to 2017. It also includes a script tag and ends with </body> and </html>.

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

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

**UI considerations**

**Semantics**

**Positioning**

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](http://talks.hiddedevries.nl)