



**FLORIDA**  
**DRUPAL CAMP**

**February 18, 2023**



**Andrew Olson**  
**Frontend Software Engineer**

# Accessible JavaScript In Action



@andrewozone



andrewozone

# Andrew Olson

Frontend Software Engineer



Frontend Developer from the  
Chicago Suburbs

Working with Drupal since 2008

Fun Fact About Me:

Musician + played in a band  
at Lollapalooza



@andrewozone



andrewozone



# Member of A11yTalks

Join the A11yCat Club

<https://A11yTalks.com/pages/sponsorship>

<https://opencollective.com/a11ytalks>



A11yTalks

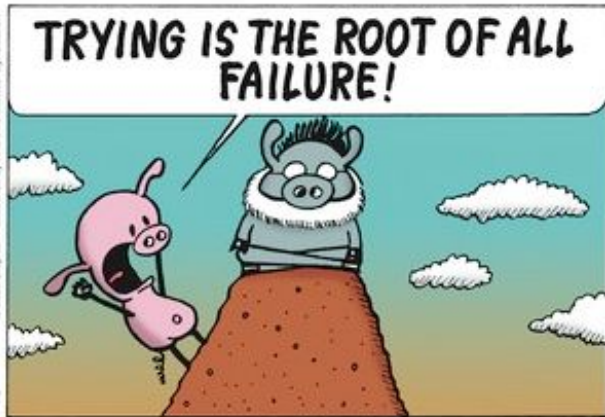
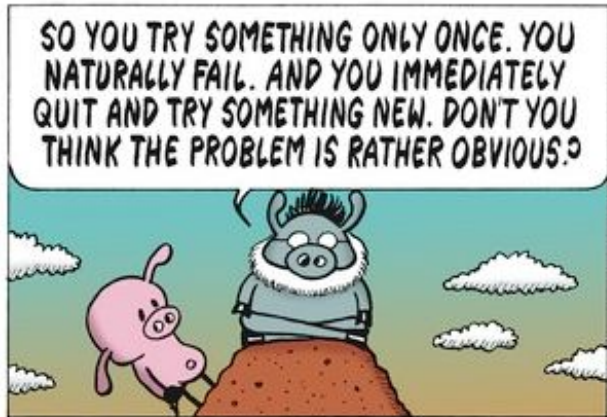
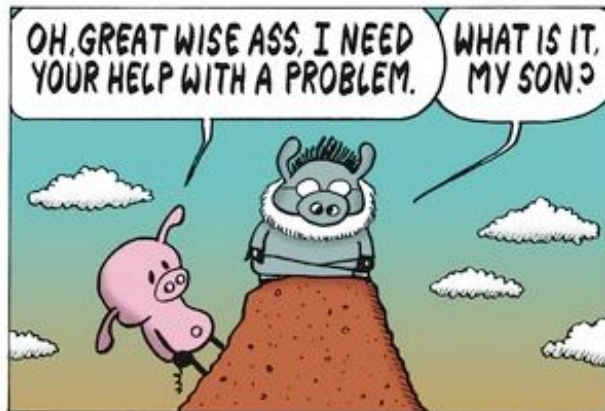
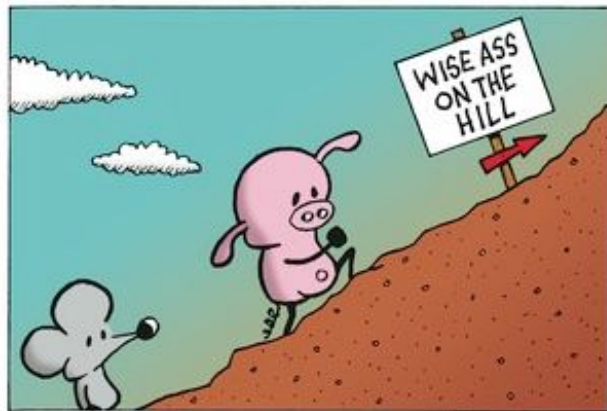


# Agenda

- Modals / Pop-Ups / Pop-Ins
- Menus
- TypeAhead (also called Autocomplete)
- Wrap Up

# PEARLS BEFORE SWINE

BY STEPHAN PASTIS





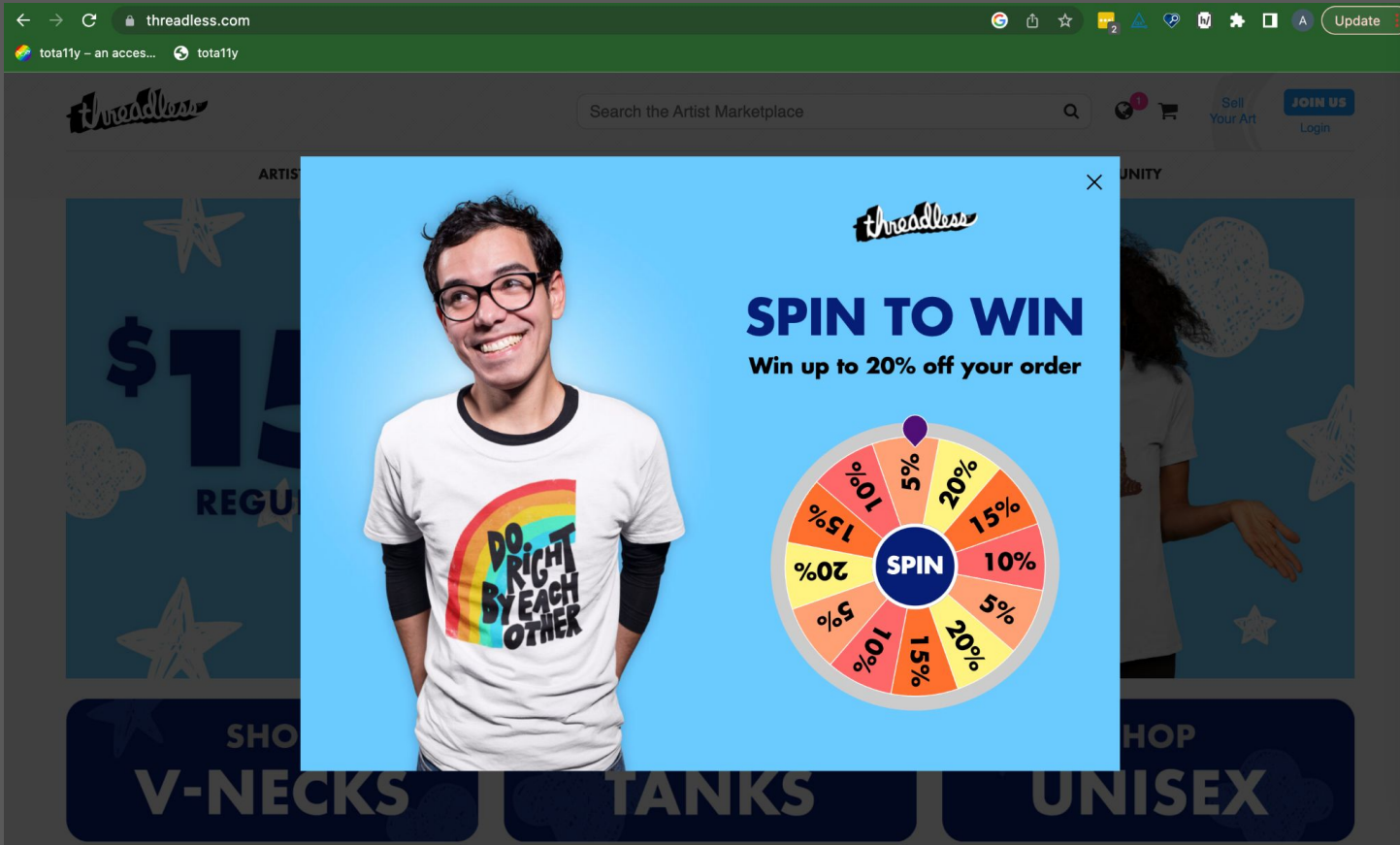
# Modals / Pop-Ups / Pop-Ins

The screenshot shows the Threadless website interface. At the top, the browser address bar displays 'threadless.com'. The website header includes the Threadless logo, a search bar with the text 'Search the Artist Marketplace', and navigation links for 'Sell Your Art' and 'JOIN US Login'. A horizontal menu lists categories: ARTISTS, THEMES, APPAREL, HEADWEAR, ACCESSORIES, WALL ART, HOME DECOR, and COMMUNITY.

The main promotional banner features a woman wearing a white t-shirt with a brown cat graphic. The background is light blue with white stars and clouds. The text on the banner reads: 'JUST BECAUSE SALE' in a red box, '\$15 TEES\*' in large blue letters, 'REGULAR, FITTED & CLASSIC TEES' in smaller blue letters, and 'SHOP NOW' in a red box.

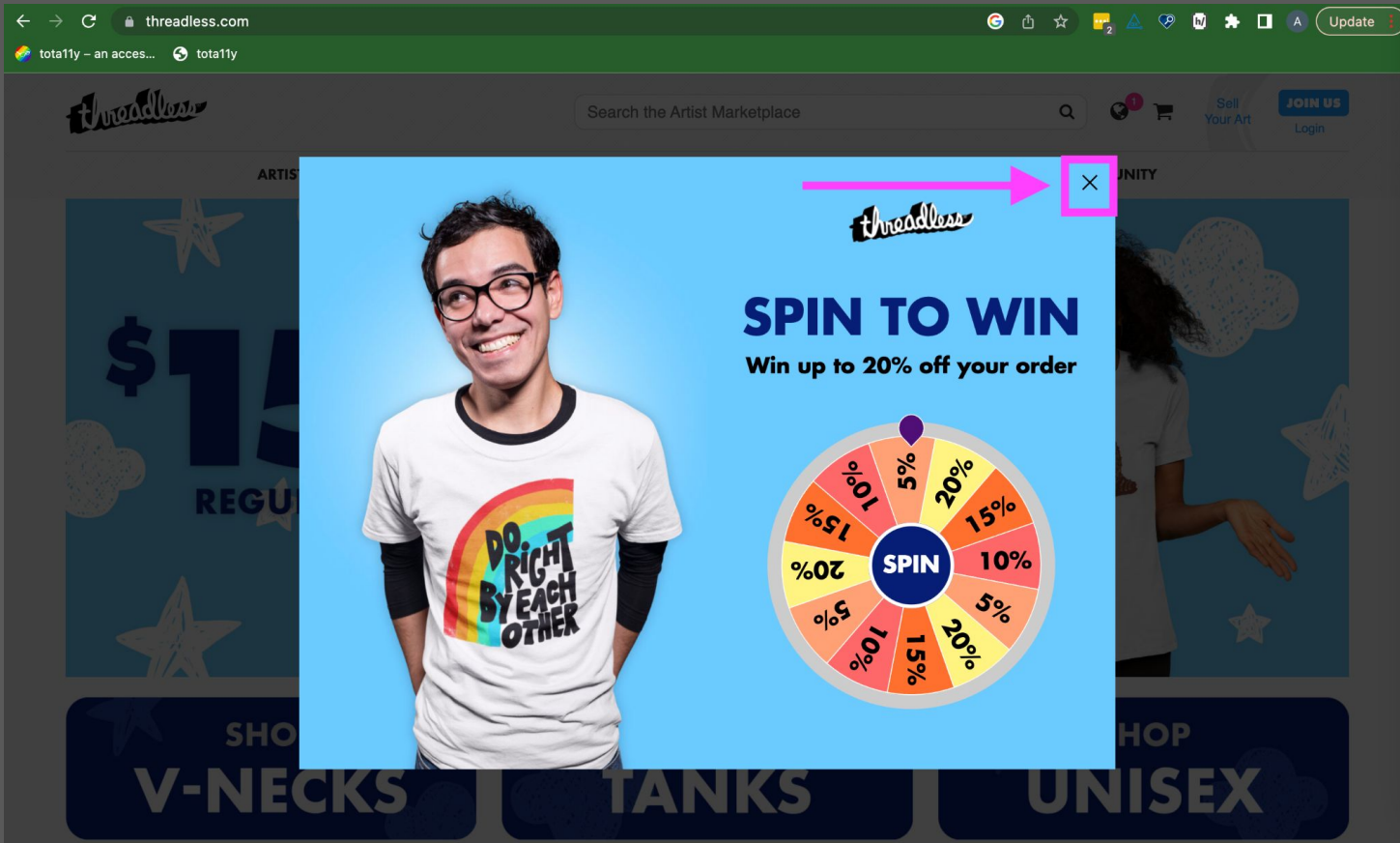
Below the main banner are three dark blue buttons with white text: 'SHOP V-NECKS', 'SHOP TANKS', and 'SHOP UNISEX'.

# Modals / Pop-Ups / Pop-Ins



~ 3 Second Delay  
Pops into Page

# Modals / Pop-Ups / Pop-Ins



Click to dismiss.

Let's keep shopping!

I don't even know if I like these t-shirts.



# Modals / Pop-Ups / Pop-Ins

The screenshot shows the Threadless website homepage. At the top is a navigation bar with the Threadless logo, a search bar, and links for 'Sell Your Art', 'Login', and 'JOIN US'. Below this is a main navigation menu with categories: ARTISTS, THEMES, APPAREL, HEADWEAR, ACCESSORIES, WALL ART, HOME DECOR, and COMMUNITY. A prominent blue banner advertises '\$15 TEES + TANKS' for 'REGULAR, FITTED, CLASSIC, V-NECKS, KIDS TEES & TANKS' with a 'SHOP NOW' button. Below the banner, the text 'Explore Thousands of Designs on Threadless!' is displayed. Two large tiles are featured: one with a rainbow design labeled 'SHOP BEST SELLERS' and another with a dinosaur head design labeled 'SHOP NEW DESIGNS'. A small 'SPIN TO WIN' button is visible in the bottom left corner.

threadless

Search the Artist Marketplace

ARTISTS THEMES APPAREL HEADWEAR ACCESSORIES WALL ART HOME DECOR COMMUNITY

**\$15 TEES + TANKS** REGULAR, FITTED, CLASSIC, V-NECKS, KIDS TEES & TANKS **SHOP NOW**

Sale prices as marked. \$15 price applies to select styles. Sale ends 02/21/23 at 5 PM CT. Excludes licensed designs.

**Explore Thousands of Designs on Threadless!**

**SHOP BEST SELLERS**

**SHOP NEW DESIGNS**

SPIN TO WIN

Wait a second, something seems familiar on this page.

# Modals / Pop-Ups / Pop-Ins

The screenshot shows the Threadless website interface. At the top, there's a navigation bar with the Threadless logo, a search bar, and links for 'Sell Your Art', 'JOIN US', and 'Login'. Below this is a category menu: ARTISTS, THEMES, APPAREL, HEADWEAR, ACCESSORIES, WALL ART, HOME DECOR, and COMMUNITY. A prominent blue banner advertises '\$15 TEES + TANKS' with a 'SHOP NOW' button. The main content area features the heading 'Explore Thousands of Designs on Threadless!' and two large image-based buttons: 'SHOP BEST SELLERS' (with a rainbow background) and 'SHOP NEW DESIGNS' (with a shark mouth background). A pink arrow points to a 'SPIN TO WIN' modal in the bottom left corner, which includes a close button (X).

threadless.com/themes/

Search the Artist Marketplace

ARTISTS THEMES APPAREL HEADWEAR ACCESSORIES WALL ART HOME DECOR COMMUNITY

**\$15 TEES + TANKS** REGULAR, FITTED, CLASSIC, V-NECKS, KIDS TEES & TANKS **SHOP NOW**

Sale prices as marked. \$15 price applies to select styles. Sale ends 02/21/23 at 5 PM CT. Excludes licensed designs.

## Explore Thousands of Designs on Threadless!

**SHOP BEST SELLERS**

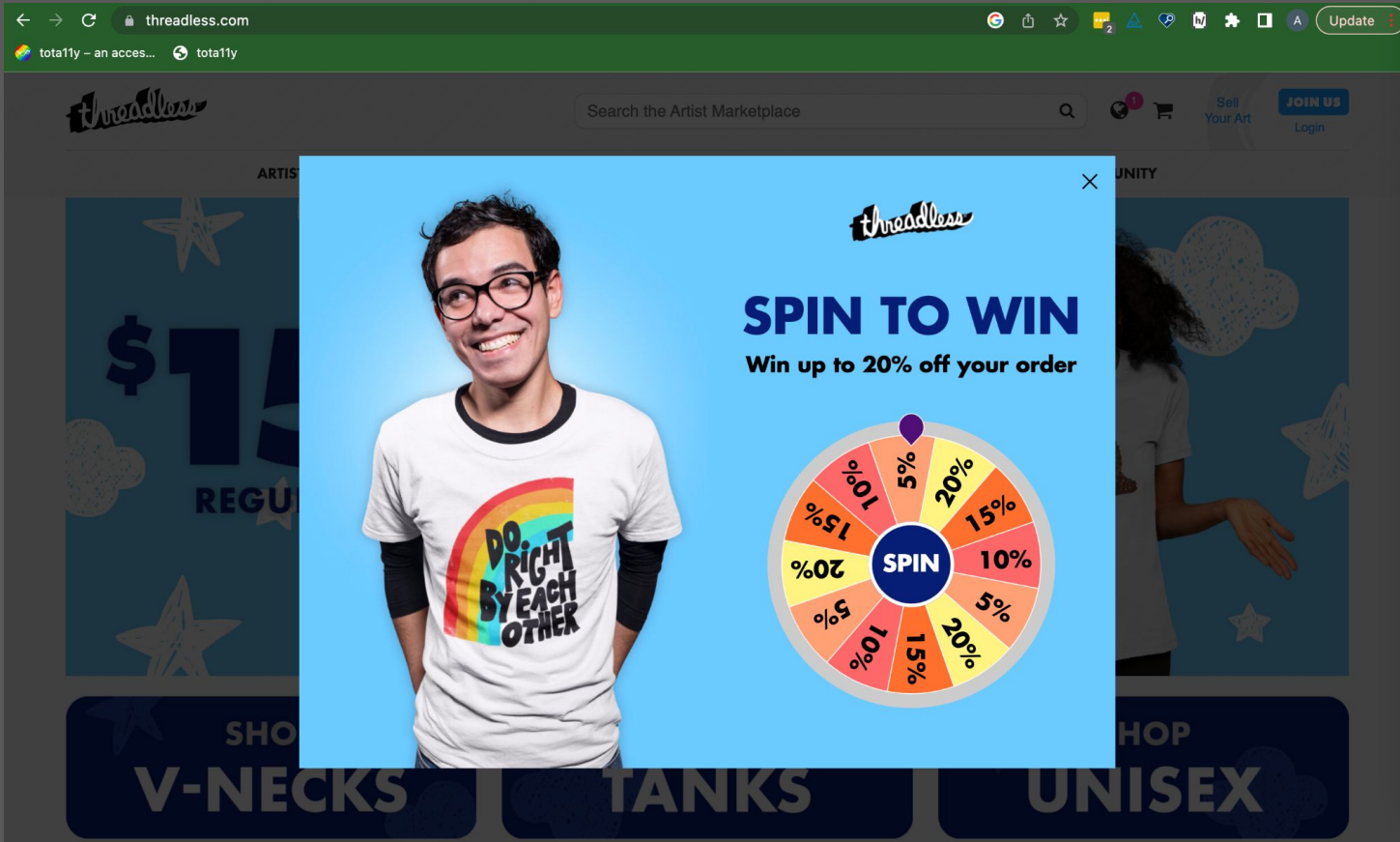
**SHOP NEW DESIGNS**

**SPIN TO WIN** ✕

Ah ha!

“Spin to Win!”

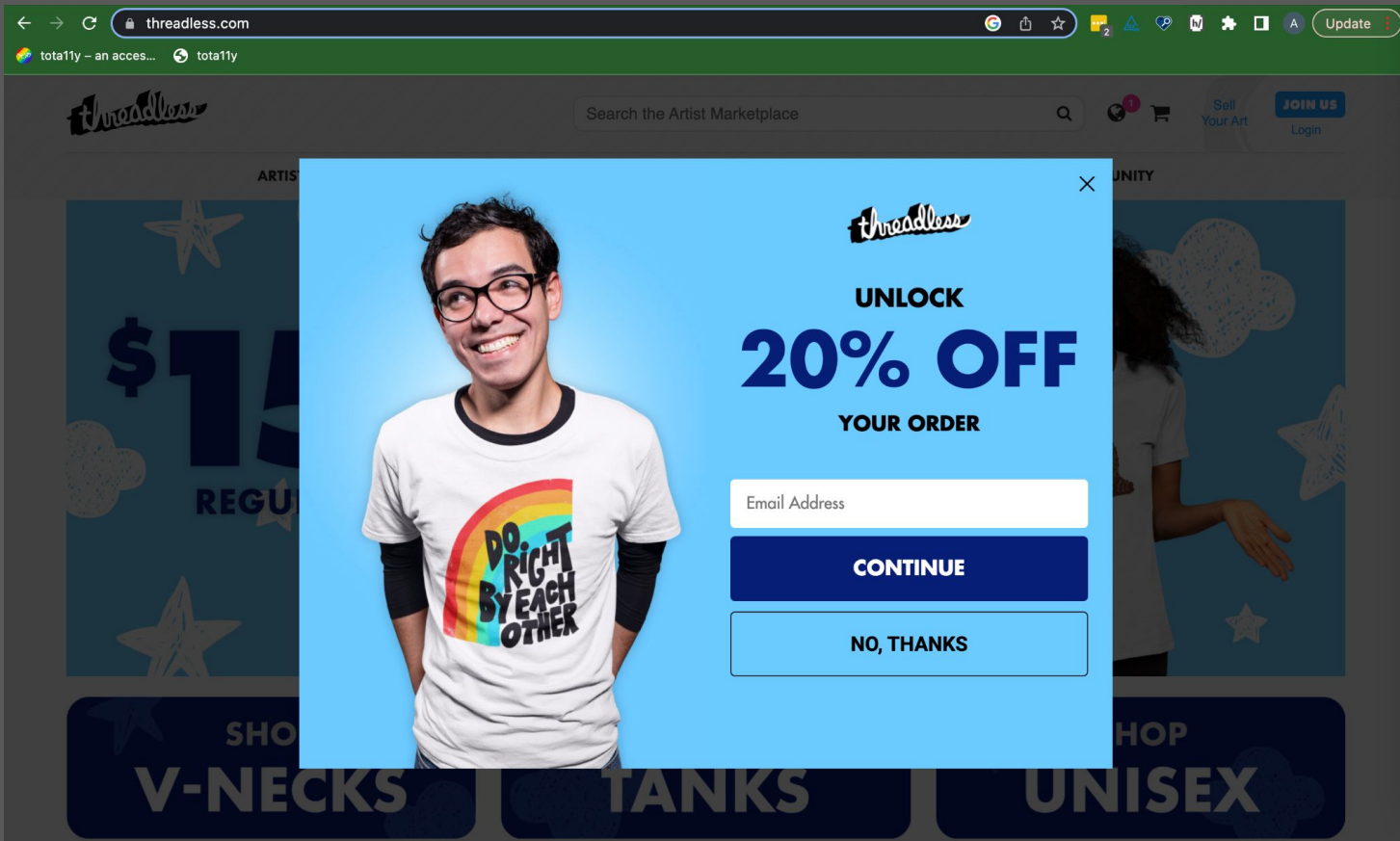
# Modals / Pop-Ups / Pop-Ins



OK, you got me!

I want a discount!

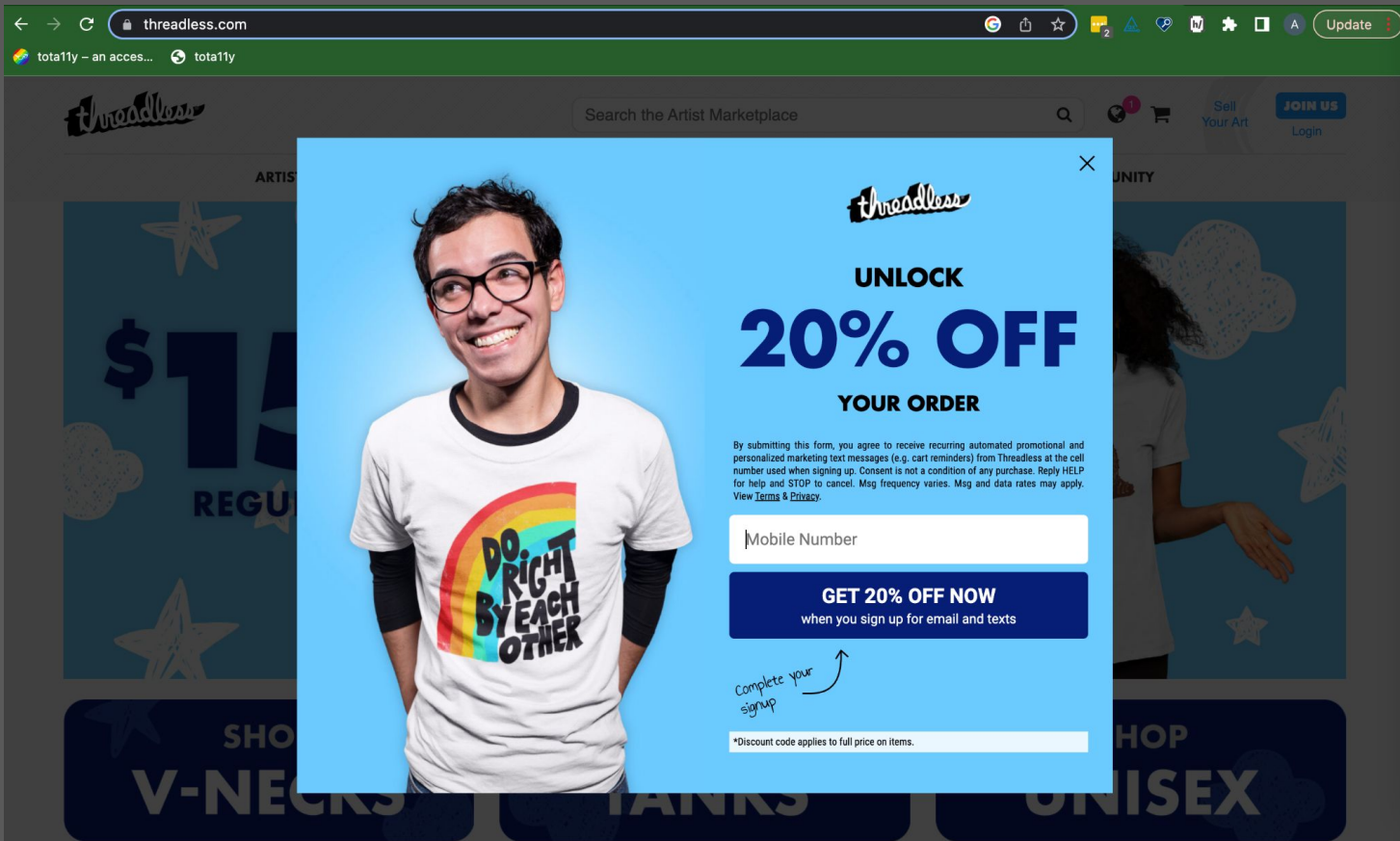
# Modals / Pop-Ups / Pop-Ins



20%, not bad!

Oh, they need my e-mail. That makes sense.

# Modals / Pop-Ups / Pop-Ins



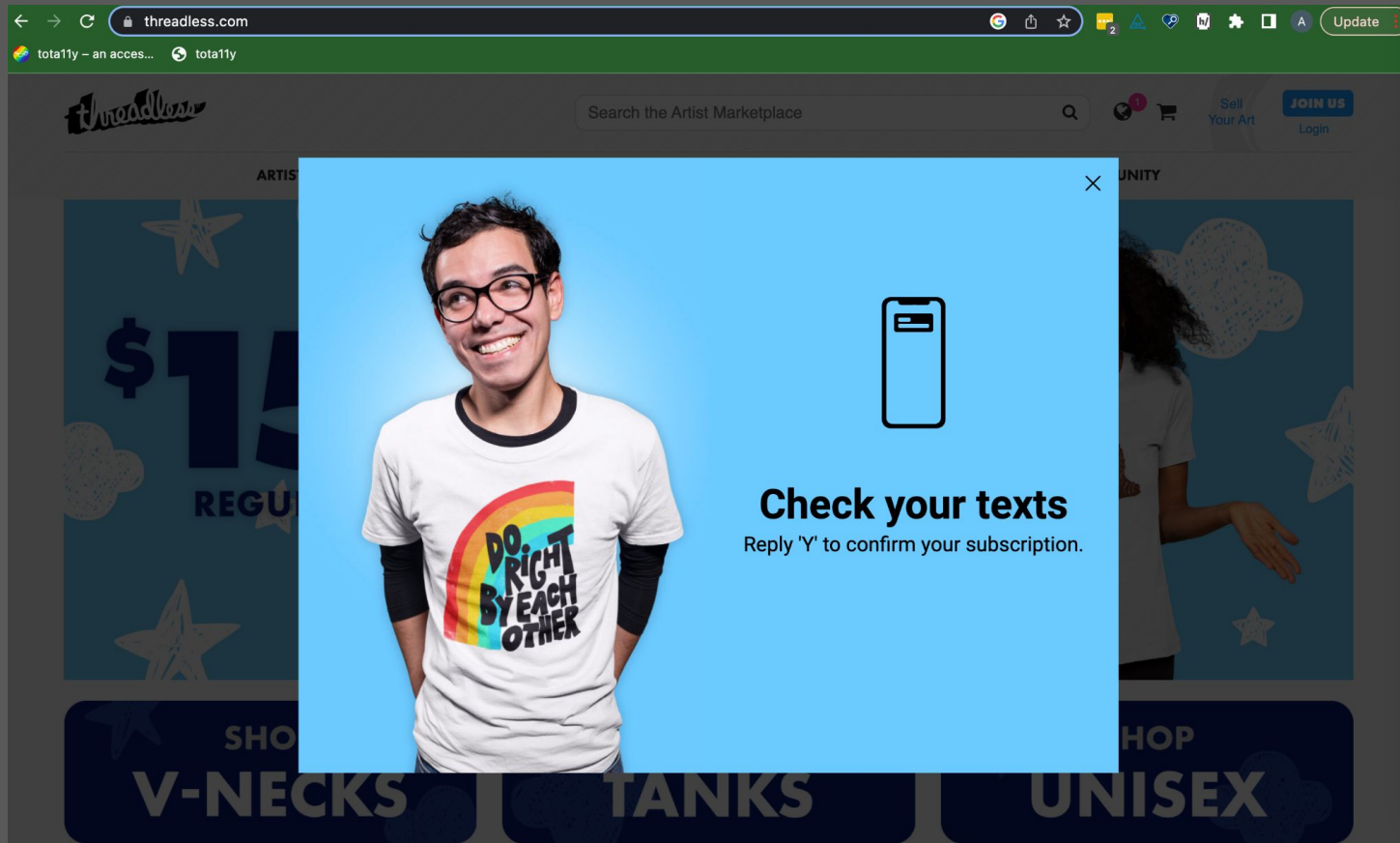
Wait, I need to  
give you my  
phone number  
too?

Grrrrrrr ...

I really want that  
t-shirt though ...

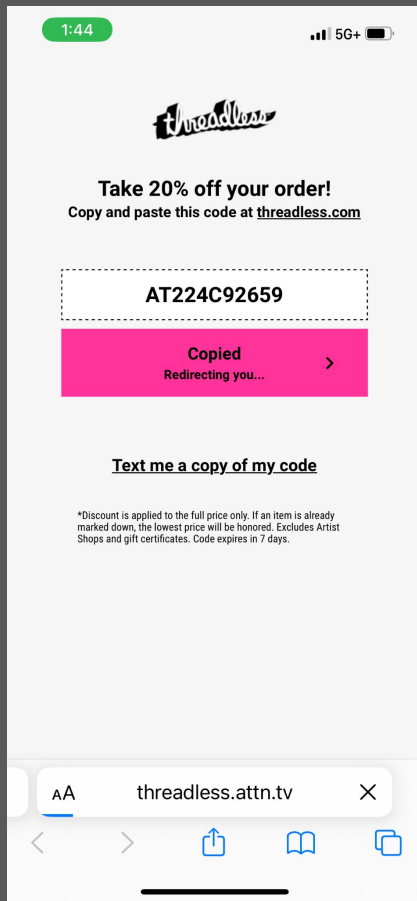
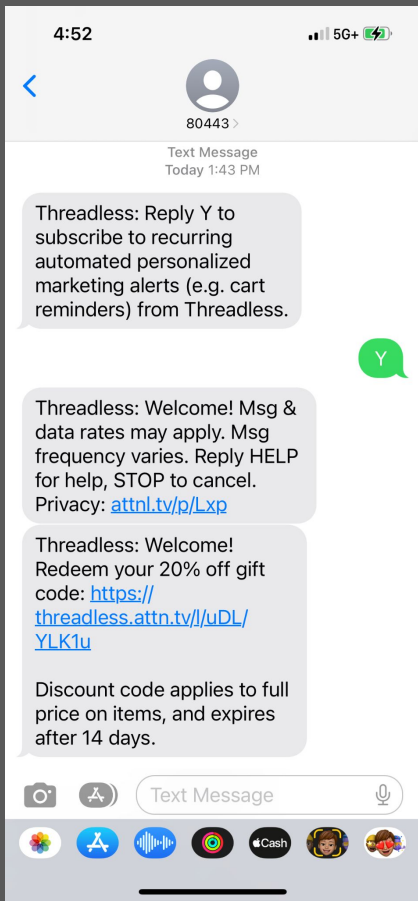


# Modals / Pop-Ups / Pop-Ins



Ok, my phone beeped and booped!

# Modals / Pop-Ups / Pop-Ins



I picked up my phone, skimmed and clicked a link from this random contact.

I know, I live dangerously!

# Modals / Pop-Ups / Pop-Ins

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threadless

Search the Artist Marketplace

Incognito Update

total11y - an acces... total11y

ARTISTS THEMES APPAREL HEADWEAR ACCESSORIES WALL ART HOME DECOR COMMUNITY

**JUST BECAUSE SALE**

**\$15 TEES\***

REGULAR, FITTED & CLASSIC TEES

**SHOP NOW**

SHOP V-NECKS

SHOP TANKS

SHOP UNISEX

No more  
"Spin To Win"

# Modals / Pop-Ups / Pop-Ins



## Rewind!

Let's go through that flow again, but as a user that only uses keyboard navigation.

Photo by Sai Harish on Unsplash

# Modals / Pop-Ups / Pop-Ins

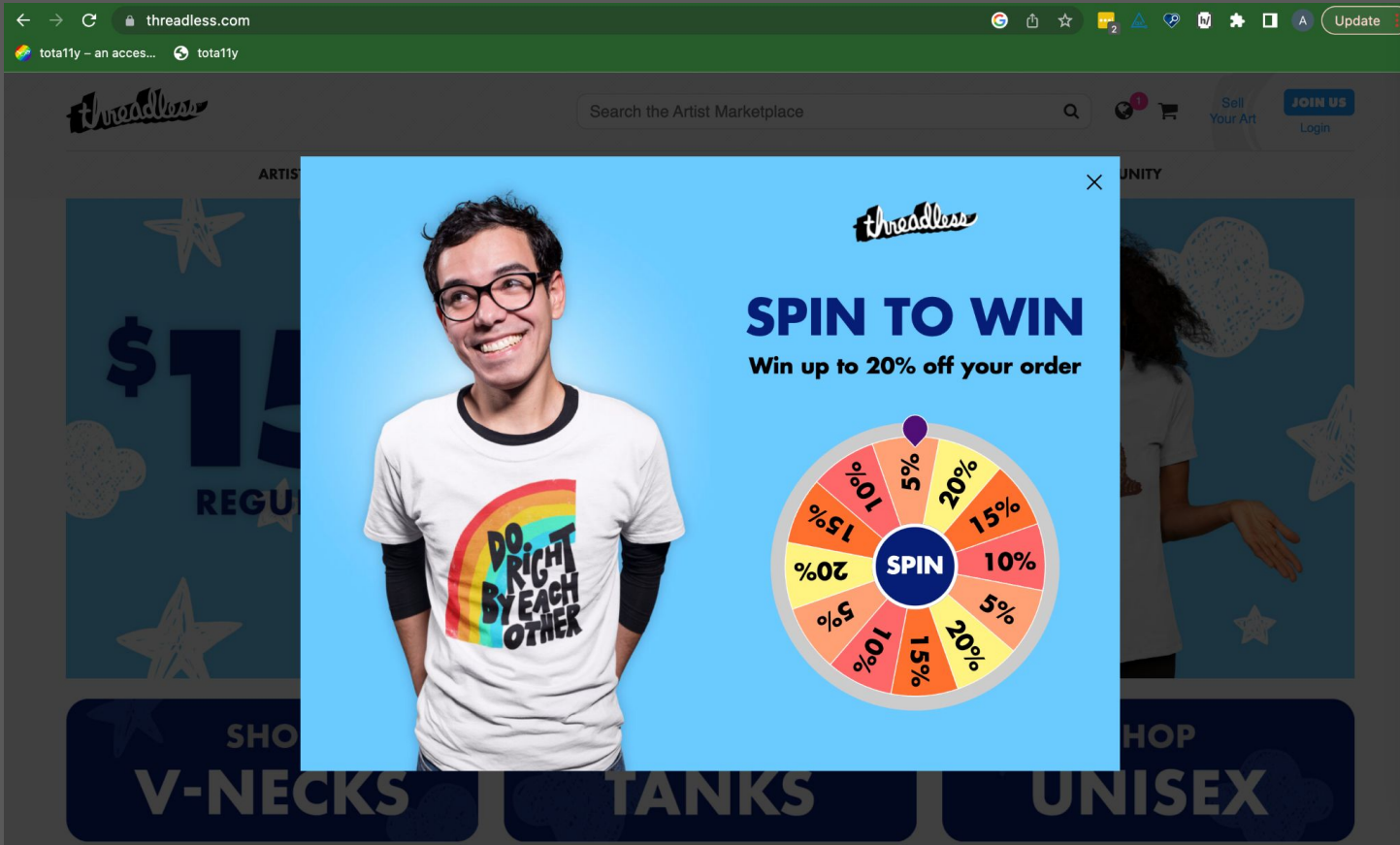
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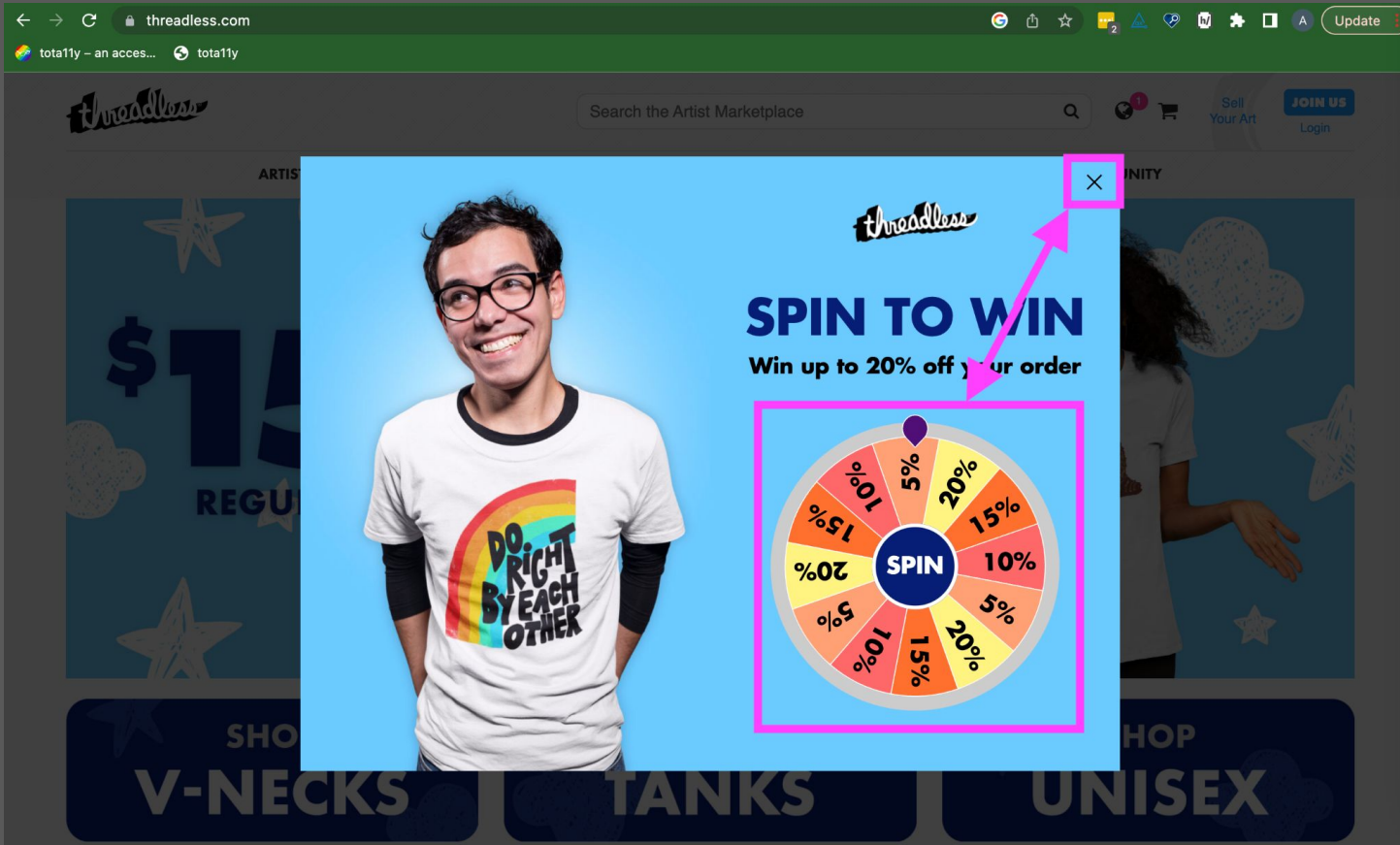


# Modals / Pop-Ups / Pop-Ins



~ 3 Second Delay  
Pops into Page

# Modals / Pop-Ups / Pop-Ins



~ Keyboard Trap  
... in a good way :)

ESC key  
to dismiss

# Modals / Pop-Ups / Pop-Ins

## Keyboard Trap and Previous Focus

Excellent code examples from Steve Woodson, Bounteous.

<https://a11y-solutions.stevenwoodson.com/solutions/focus/modals/>



# Modals / Pop-Ups / Pop-Ins

## Keyboard Trap and Previous Focus

Excellent code examples also available from Deque.

<https://dequeuniversity.com/library/aria/simple-alert-dialog>

# Modals / Pop-Ups / Pop-Ins



## Rewind!

Let's go through that flow again, but as a user that uses a screen reader VoiceOver on a Mac.

Photo by Sai Harish on Unsplash

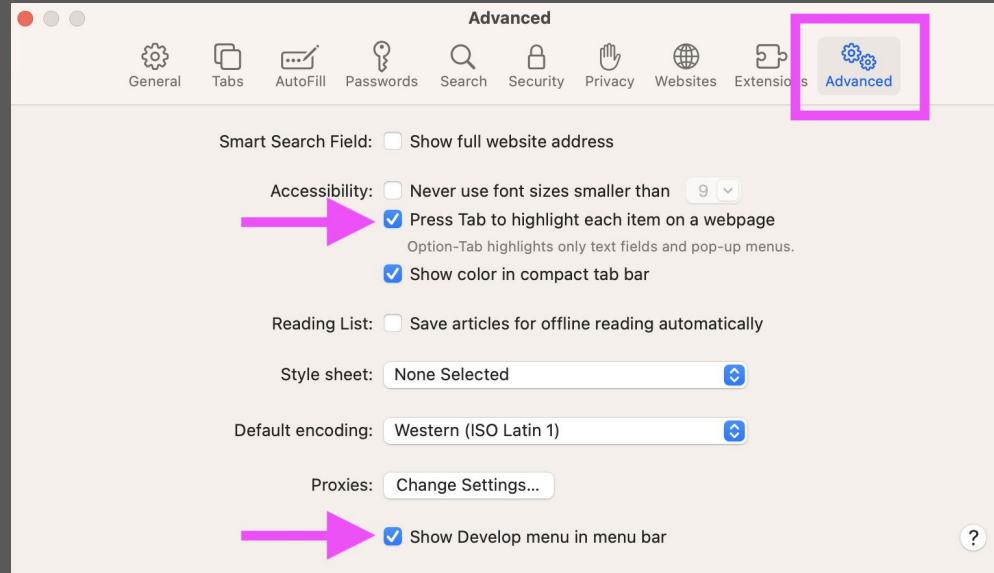


# Modals / Pop-Ups / Pop-Ins

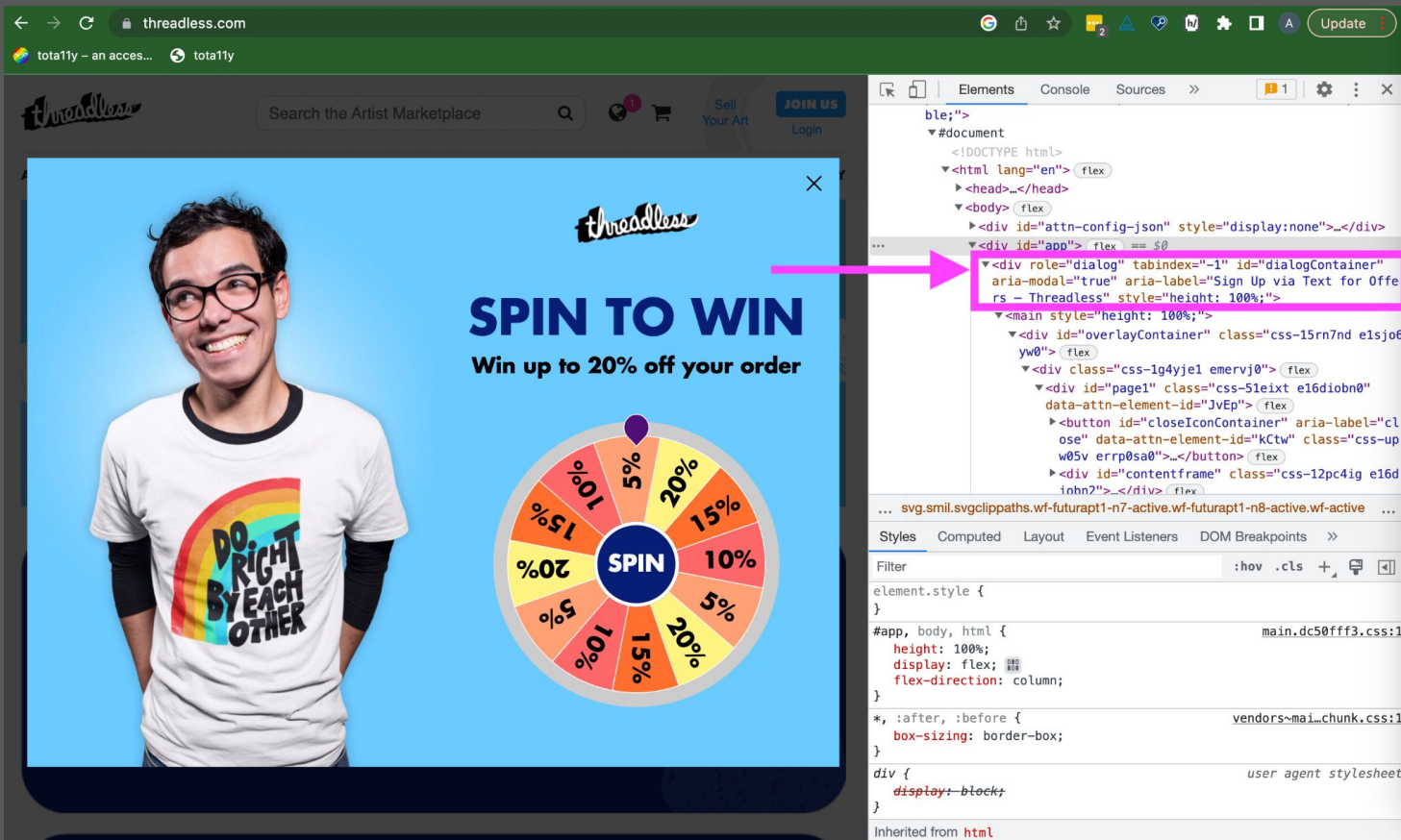
## Safari and VoiceOver ProTips

VoiceOver shortcuts reference

<https://dequeuniversity.com/screenreaders/voiceover-keyboard-shortcuts>



# Modals / Pop-Ups / Pop-Ins



The screenshot shows a web browser displaying the Threadless website. A modal titled "SPIN TO WIN" is open, featuring a man in a white t-shirt with a rainbow graphic and the text "DO RIGHT BY EACH OTHER". The modal also includes a spinning wheel with various discount percentages (5%, 10%, 15%, 20%) and the text "Win up to 20% off your order". A pink arrow points from the modal to the browser's developer console, which shows the HTML structure of the modal. The HTML includes a `<div role="dialog" tabindex="-1" id="dialogContainer" aria-modal="true" aria-label="Sign Up via Text for Offers - Threadless" style="height: 100%;">` element, which is highlighted in pink. The console also shows the CSS styles for the modal, including `height: 100%; display: flex; flex-direction: column;`.

Using aria-modal and aria-label

# Modals / Pop-Ups / Pop-Ins

## Modal Dialog Example

Excellent code examples from ARIA Authoring Practices Guide (APG)

<https://www.w3.org/WAI/ARIA/apg/patterns/dialog-modal/examples/dialog/>



# Modals / Pop-Ups / Pop-Ins



Work together with:

- Marketing
- Analytics
- Real Users (I know, right?)

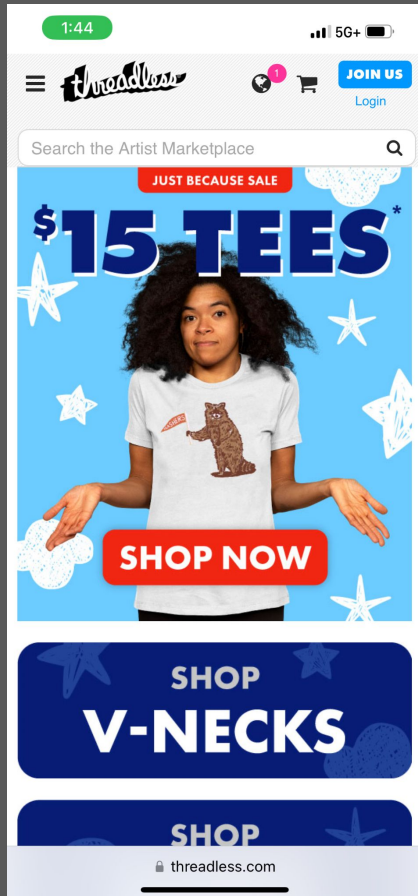
Modified Photo by Ian Schneider  
on Unsplash

# Modals / Pop-Ups / Pop-Ins

## What are the choices in the Drupal Admin?

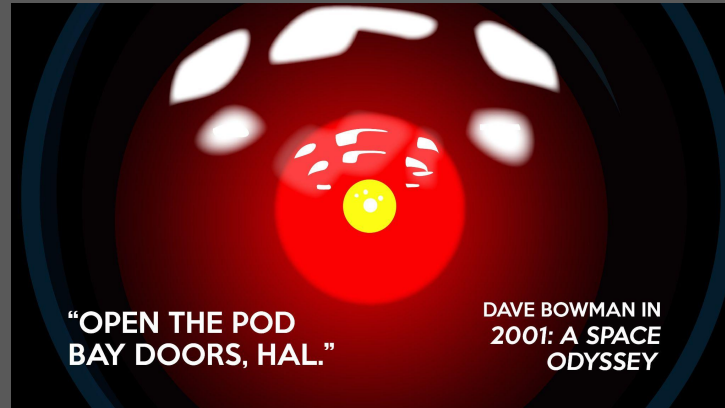
- Select Time to Pop. *5 seconds default, but can be customized.*
- Cookies vs. Local Storage.
- Salesforce Forms vs Coupon Generators (or both!).
- Display by URL path. Wildcards allowed.
- Special URLs from Newsletters or Email Marketing. *Regex FTW!*
- Select locale.
- Hide on mobile viewports.

# Modals / Pop-Ups / Pop-Ins



Appears that “Spin To Win” is for desktop only.

Or, someone has profiled, personalized, and tracked me so well that they knew I already have a discount code and I am visiting separately on my phone. And I love cats. And I love the movie *2001: A Space Odyssey* ... this is fine, right?

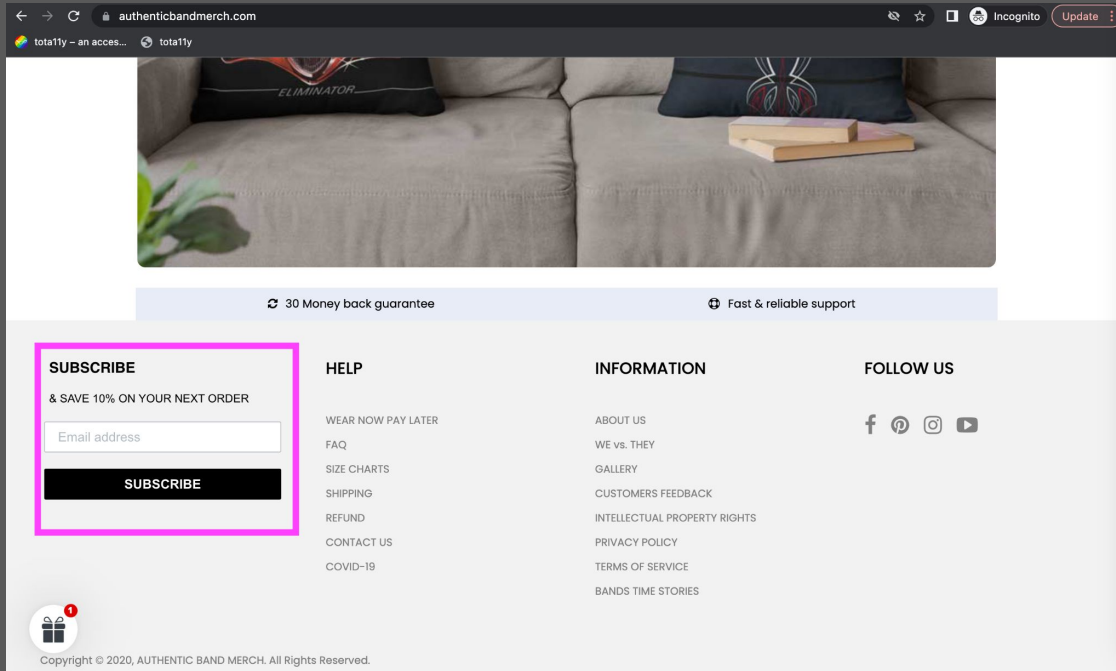


<https://twitter.com/formattedscreen/status/689658075817476096>



# Modals / Pop-Ups / Pop-Ins

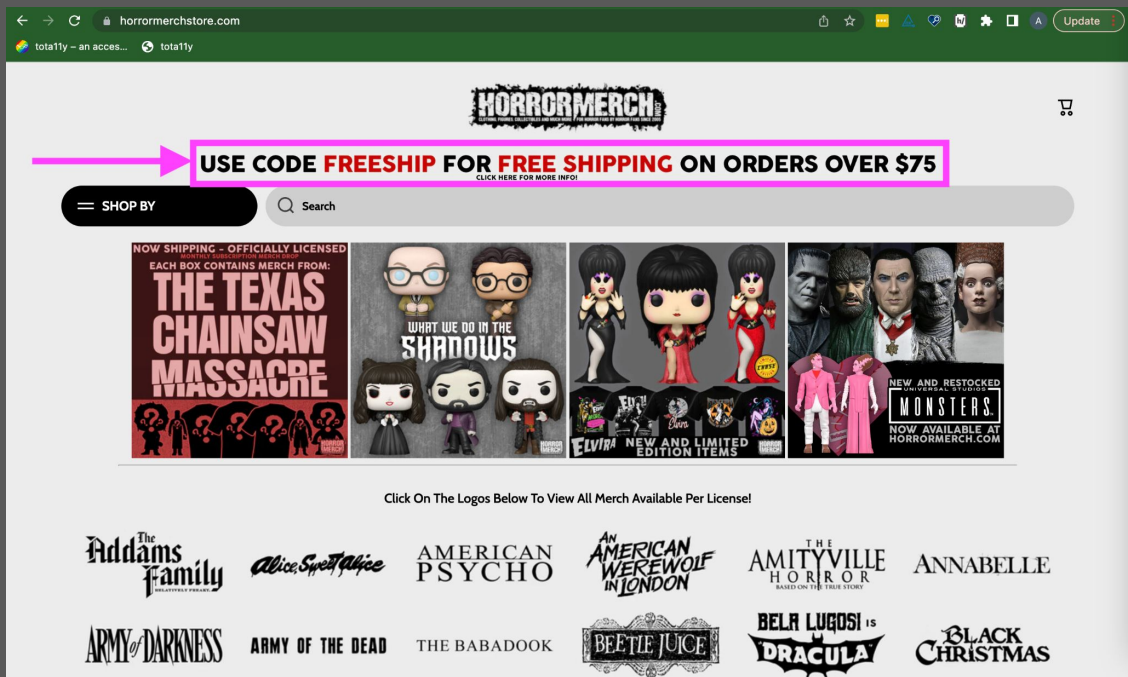
## Alternatives



Newsletter signup in the footer with incentive to sign up.

# Modals / Pop-Ups / Pop-Ins

## Alternatives

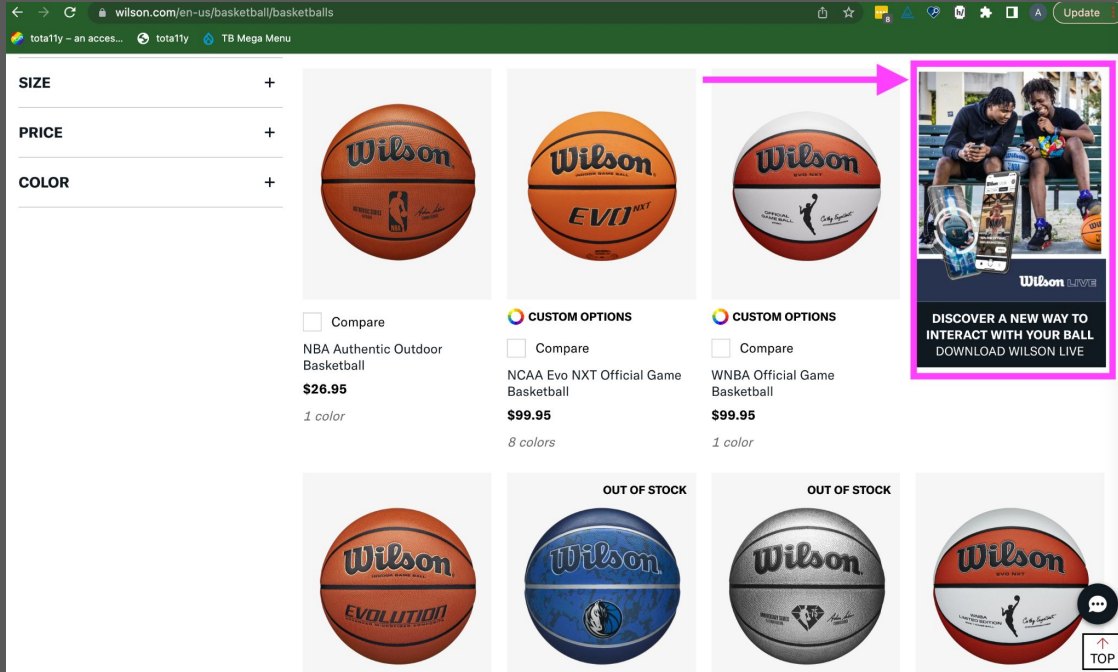


Consistent graphic at the top of the home page.

... but please use alt text for the image!!

# Modals / Pop-Ups / Pop-Ins

## Alternatives



Advertise in context  
of the shopping  
experience.

# Menus

Co-Maintainer for TB Mega Menu on Drupal

[https://www.drupal.org/project/tb\\_megamenu](https://www.drupal.org/project/tb_megamenu)

Keyboard Navigation Support

<https://www.drupal.org/docs/contributed-modules/the-better-mega-menu/accessibility-features/keyboard-navigation>

# Menus

Live Demo of TB Mega Menu!!

<https://www.hollyhunt.com/>

<https://twitter.com/andrewozone/status/1472420769888186368>

<https://nypost.com/2021/12/15/jorts-the-ginger-cat-sparks-debate-about-perpetuating-ethic-stereotypes/>



# Menus

Read About Olivero's Menu (it's amazing!!)

The Accessibility And Usability Journey Of Drupal's Primary Navigation

By Mike Herchel

<https://www.smashingmagazine.com/2022/09/accessibility-usability-drupal-primary-navigation/>



# Menus

## Watch the DrupalCon 2022 Session

Building Olivero's hyper accessible and beautiful navigation from the ground up  
DrupalCon Portland

<https://youtu.be/dn-JN2bcw1s>

# Menus

## Navigation Menubar Example

<https://www.w3.org/WAI/ARIA/apg/patterns/menubar/examples/menubar-navigation/>

## Disclosure Navigation Menu Example

<https://www.w3.org/WAI/ARIA/apg/patterns/disclosure/examples/disclosure-navigation-hybrid/>

Reference: <https://adrianroselli.com/2019/06/link-disclosure-widget-navigation.html>

# TypeAhead / Autocomplete

Oh dear, we ran  
out of time.

Check out these resources in  
the meantime ...



Photo by Xu Haiwei on Unsplash

# TypeAhead

## Drupal Announce

<https://www.drupal.org/docs/drupal-apis/javascript-api/accessibility-tools-for-javascript-in-drupal-8#aria-live>

# TypeAhead

## Drupal Announce

Excellent examples in this Florida DrupalCamp Session:

**The 10 Most Useful Libraries in Drupal 10 Core**

Presented by Andy Blum, Lullabot

<https://www.fldrupal.camp/session/10-most-useful-libraries-drupal-10-core>

# TypeAhead

## Drupal Announce

JavaScript and Accessibility: Don't Blame the Language

Presented by Everett Zufelt

<https://events.drupal.org/nashville2018/sessions/javascript-and-accessibility-dont-blame-language>



# TypeAhead

## Aria Live

Excellent code examples from Steve Woodson, Bounteous.

<https://a11y-solutions.stevenwoodson.com/solutions/aria/live/>



# TypeAhead

## Drupal Announce

Article by Jules Khong

<https://thinkshout.com/blog/2020/11/screen-readers/>



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Andrew Olson  
Frontend Software Engineer

# Thank You!



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