DIGITAL WEB SERVICES NETWORK

Bringing together digital product managers, designers, and engineers.

cdt.ca.gov/dwsn

DWSN Quarterly Forum

Thursday, January 19, 2023

California Department of Technology
STRATEGY INNOVATION DELIVERY

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Digital Web Services Network

- Welcome to the DWSN forum, we will begin shortly.
- For the best experience, please use your computer to join the meeting.
- Mute your audio.
- Turn off your video.
- Use the raise hand button or the meeting chat for comments and questions.

DWSN Forum Agenda

Opening Remarks……Blaine Wasylkiw (5 minutes)

Data & Innovation Fund & Governor's Equity Executive Order……..Hayley Figeroid (5 minutes)

Big Idea: Google Translator Widget is Dead; Long Live ??? ……..Zakiya Khabir (10 minutes)

State Web Template V6……..Yesenia Gutierrez / Art Khomishen (20 minutes)

Big Idea: Bringing State Content Designers Together…….. Michael Sullivan (15 minutes)

Accessibility Updates……...Greg Duncan (5 minutes)

Google Analytics 4……...David Goebel (5 minutes)

Big Idea: Web Components…….... Aaron Hans (10 minutes)

Digital Mistakes to Avoid in 2023…… Koji Kumpulainien (10 minutes)

Suggested Future Topics / Closing Remarks…… Blaine Wasylkiw (5 minutes)

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Opening Remarks

Blaine Wasylkiw

Acting Deputy CTIO & Chief Web Officer

California Department of Technology

Data & Innovation Fund & Governor's Equity Executive Order

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Hayley Figeroid
Government Relations Manager
Office of Data & Innovation

California Department of Technology
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Next Launch of the Data & Innovation Fund

- The Office of Data & Innovation (ODI) is launching its selection process for the next round of Data & Innovation Fund (DIF) projects
- DIF provides departments **with funding and talent from ODI** to analyze and solve their business problems in innovative ways
- New this round: CalData offerings—in addition to the CalInnovate services from Round 1
- Application will post to the ODI website this week
- 1:1 office hours begin today
- Want to learn more? Email DIF@innovation.ca.gov and sign up for CalData updates

We’re also working on equity standards

- Executive Order N-16-22 directed state departments to advance equity in strategic plans covering 2023-24, 2024-24, and 2025-26.
- As part of this effort, ODI is developing a set of statewide standards for:
  - collecting and managing race and ethnicity data;
  - metrics for measuring and tracking equity in state services and programs; and
  - service delivery standards that promote equity.

We want to work with you on equity

ODI is looking for departments to workshop the **service delivery standards** with before we make final recommendations to the governor.

If you want to learn more about opportunities to be involved, sign up here!

We want to connect with you

Hayley.Figeroid@innovation.ca.gov

https://innovation.ca.gov

@californiaODI

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Big Idea:

Google Translator Widget is Dead; Long Live ???

Zakiya Khabir
Engineering Manager
Office of Data & Innovation

California Department of Technology
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Goals

- Share experiences
- Provoke conversation
- Inspire innovation

Disclaimer

This presentation focuses on written and spoken languages and doesn’t cover signing languages like American Sign Language (ASL).

Advocates for Deaf, DeafBlind, DeafDisabled, and Hard of Hearing People recommended that the state provide English content through videos with signing by deaf interpreters

Source: Disability Rights Education & Defense Fund

Why isn’t English content enough?

- Pandemic forced more government services online
- 44% of Californians speak a language other than English at home
- Dymally-Alatorre Bilingual Services Act of 1973 states “[materials] shall be translated into any non-English language spoken by a substantial number [5%] of the public served by the agency.”

Sources: census.gov, leginfo.legislature.ca.gov

Active poll

0

Share reasons why departments should provide website content in languages other than English.

Join at

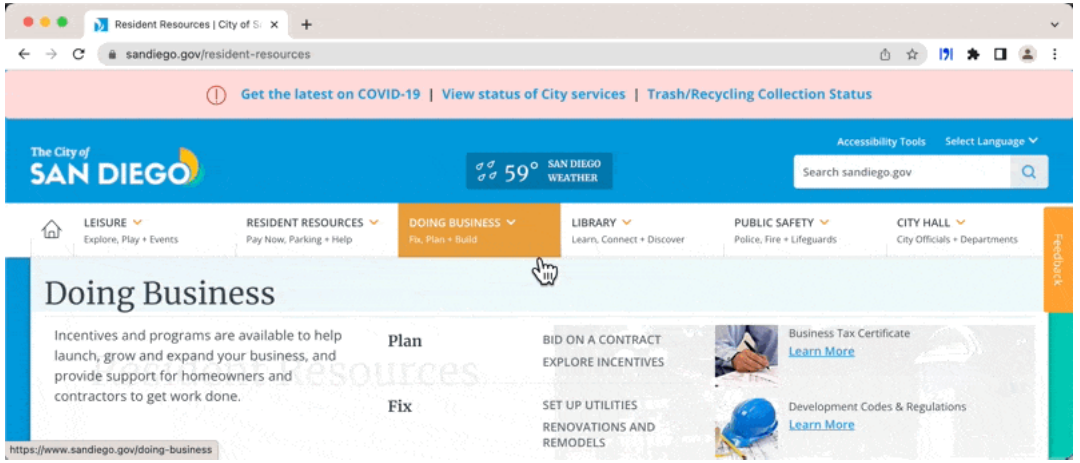
slido.com

#3513 408

Google Translate's Website Translator

Discontinued on December 4, 2019*

- Code snippet that could be easily installed on almost any site
- Could be hacked to look better
- Widely used for many years
- It also had its downsides



*Still available for non-commercial, COVID-19 use as of May 19, 2020.

Sources: TranslatePress Blog, developers.google.com

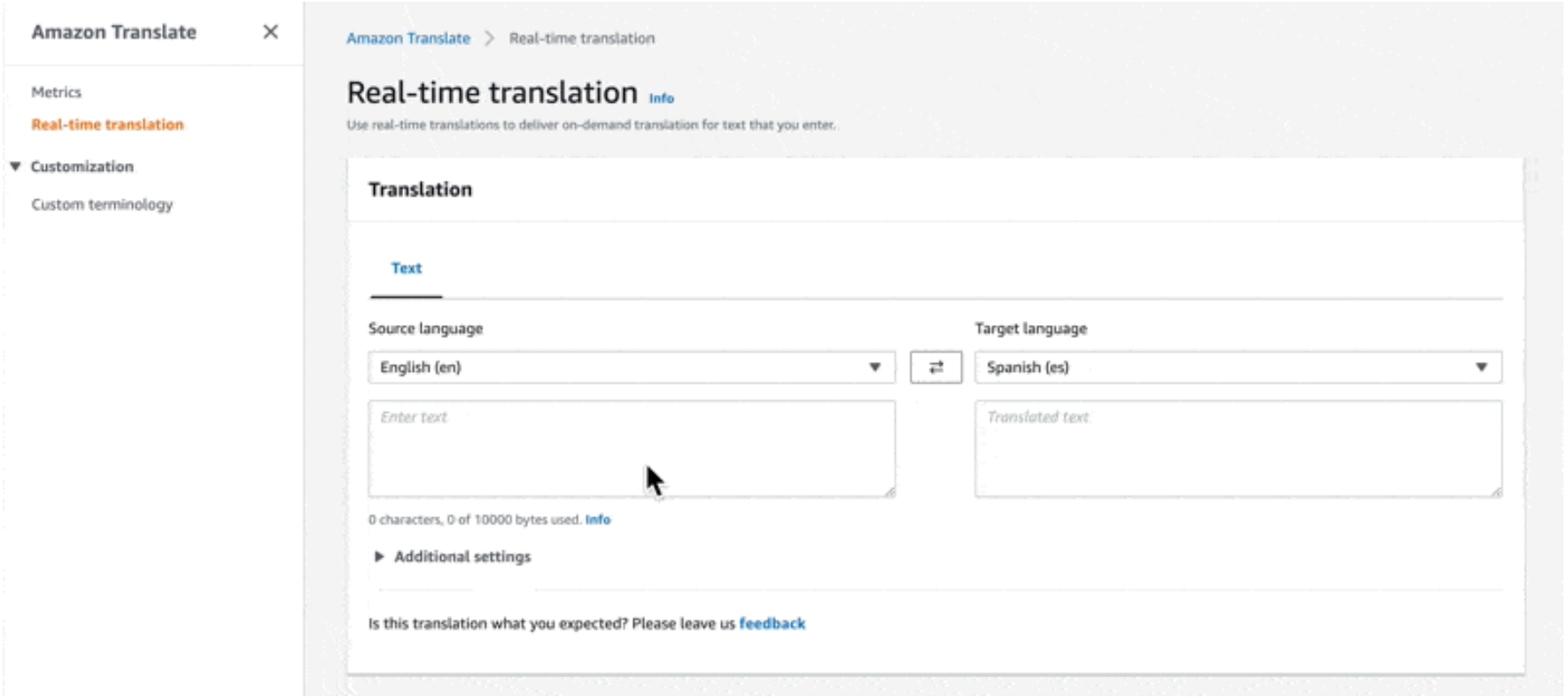
Why do we keep using the GTranslate widget?

- There is no free, easy to use, alternative.
- It still “works”.

Case study: abortion.ca.gov (v1)

Case study: abortion.ca.gov (v1) (1 of 4)

AWS translate + human review + eleventy-plugin-i18n + text files



Case study: abortion.ca.gov (v1) (2 of 4)

AWS translate + **human review** + eleventy-plugin-i18n + text files

Yesenia Gutierrez
UX, Product and Strategy Lead

Kimberly Losenara
Visual Designer

Clara Gonzalez Sueyro
User Researcher

Case study: abortion.ca.gov (v1) (3 of 4)

AWS translate + human review + **eleventy-plugin-i18n** + text files

statewide-header.njk

```
<a
  href="/es{{ page | pagePath('/es/') }}"
  rel="alternate"
  lang="es"
  hreflang="es"
  data-active="{{ page | langPathActive('es', locale)}}”
>Español</a>
```

base-home.njk

```
<h1 class="m-b-3">
  {{ 'Abortion is legal and protected in California' | i18n(locale) }}
</h1>
```

No client-side JavaScript! Thanks, Chach!

Case study: abortion.ca.gov (v1) (4 of 4)

AWS translate + human review + eleventy-plugin-i18n + **text files**

```
"Abortion is legal and protected in California": {
  en: "Abortion is legal and protected in California",
  es: "El aborto es legal y está protegido en California",
  ko: "낙태는 합법적이며 캘리포니아에서
  tl: "Ang pagpapalaglag ay leg
  vi: "Phá thai là hợp pháp và
  "zh-hans": "在加州，人工流产属于
  "zh-hant": "人工流產在加州是受到
  location: "Homepage",
},
```

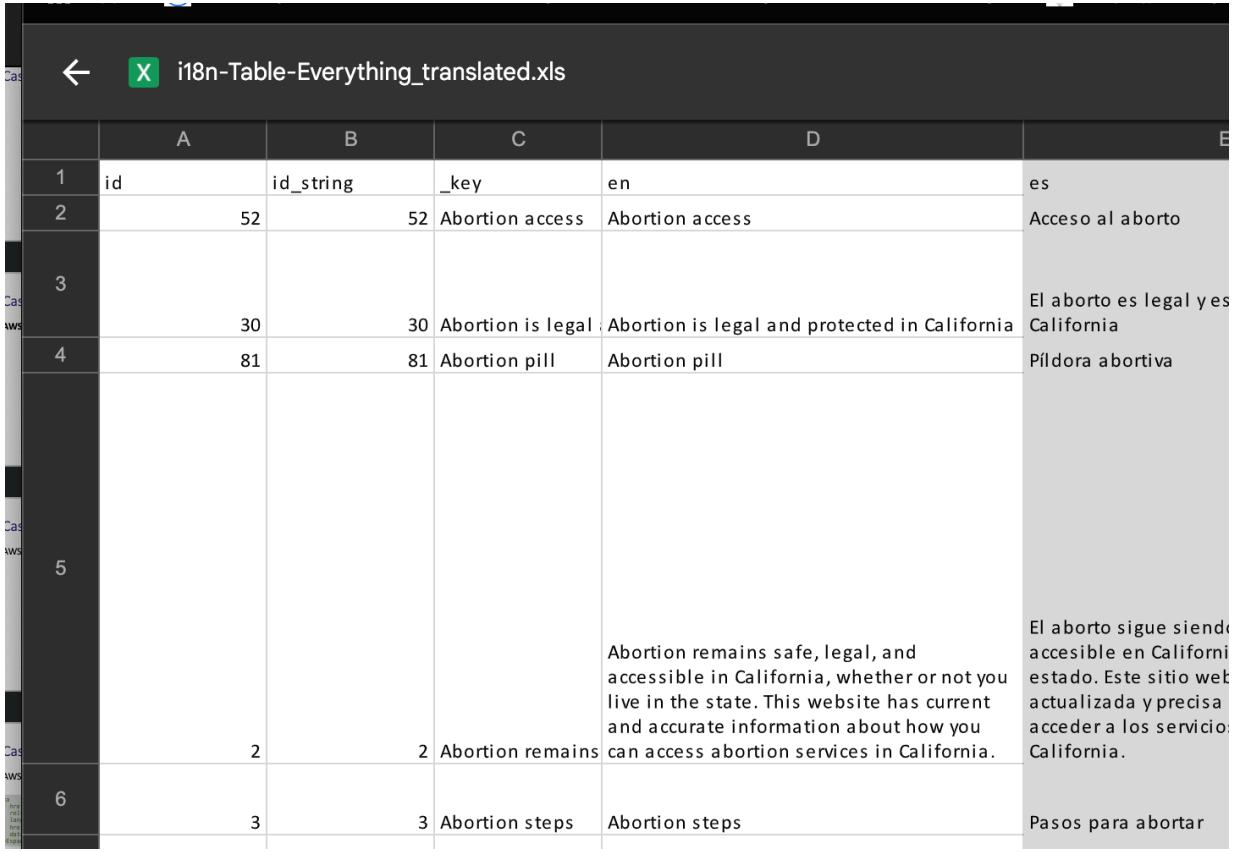
i18n.js

about-abortion.md

```
---
title: Sobre el aborto
description: Obtenga información sobre lo que es un aborto, las fases del embarazo, los tipos de proveedores de servi
abortar y los cuidados posteriores al aborto.
keywords: definición de aborto, trimestre, viable, viabilidad, proveedores
layout: sidebar-with-content.njk
dir: ltr
locale: es
---
Un aborto es un procedimiento que pone fin a un embarazo. Es un procedimiento muy común y seguro cuando lo realiza un
médica calificado.

Si está pensando en abortar, no está sola. Según los datos de 2014, alrededor de 1 de cada 4 personas en los Estados
embarazadas abortará antes de los 45 años. El 60 % de las personas que abortan ya tienen hijos.

## Qué es un aborto

Un *aborto* es un tratamiento médico que pone fin a un embarazo. También puede llamarse *interrupción del embarazo*.

Un aborto puede consistir en tomar píldoras o someterse a un procedimiento médico común en una clínica de salud. El t
```

Case study: abortion.ca.gov (v2)

AvantPage + eleventy-plugin-i18n + text files



i18n-Table-Everything_translated.xls

	A	B	C	D	E
1	id	id_string	_key	en	es
2	52	52	Abortion access	Abortion access	Acceso al aborto
3	30	30	Abortion is legal	Abortion is legal and protected in California	El aborto es legal y es California
4	81	81	Abortion pill	Abortion pill	Píldora abortiva
5	2	2	Abortion remains	Abortion remains safe, legal, and accessible in California, whether or not you live in the state. This website has current and accurate information about how you can access abortion services in California.	El aborto sigue siend accesible en Californi estado. Este sitio web actualizada y precisa acceder a los servicio California.
6	3	3	Abortion steps	Abortion steps	Pasos para abortar

We’re still experimenting

- Human language and subject matter experts are more expensive and slower, but can produce the highest quality translations
- Machines are cheaper, faster, and have unpredictable quality

  (But arguably getting better and more expensive every day)

Active poll

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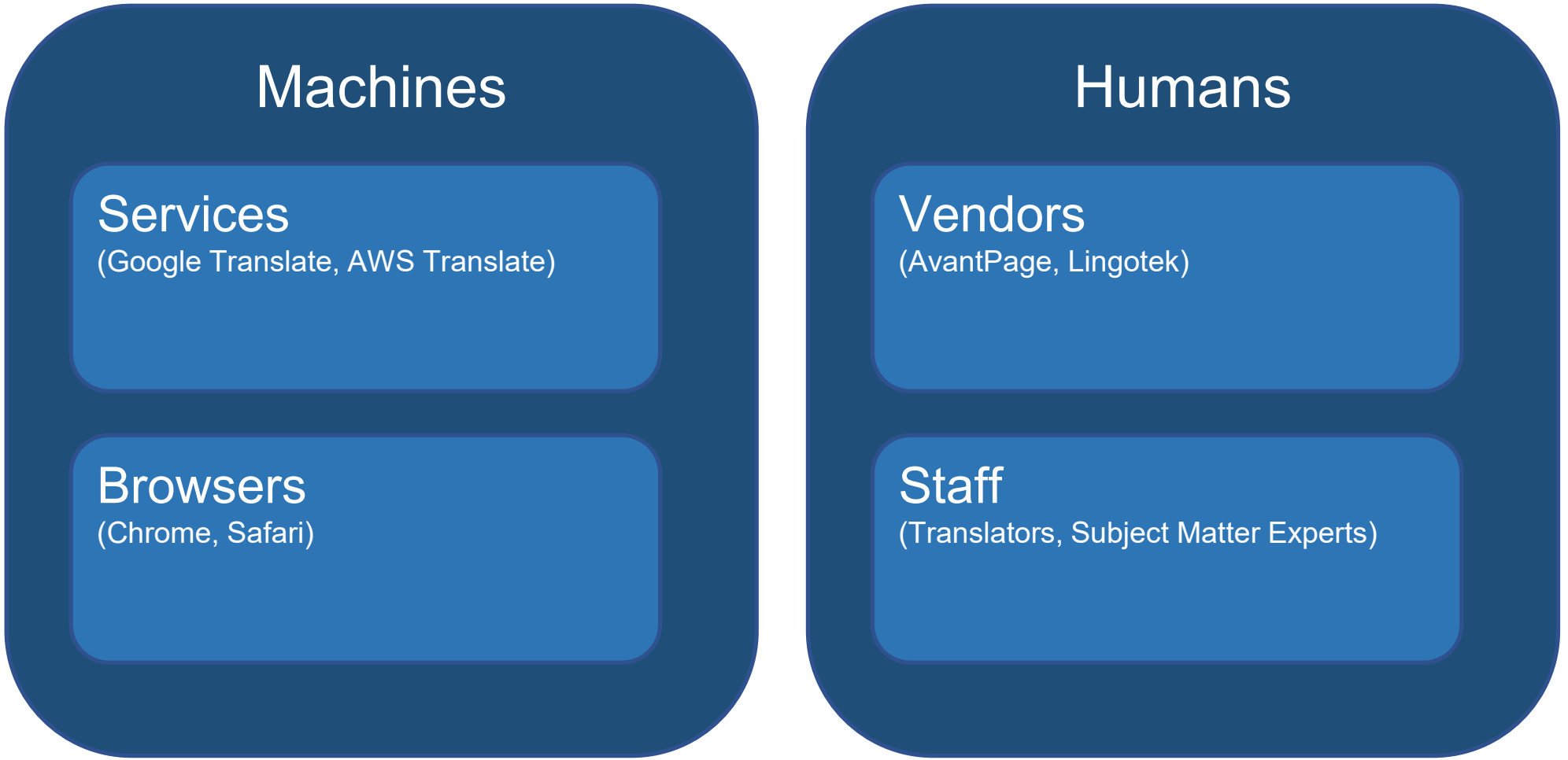
Join at

slido.com

#2156 258

What tools or services do you use to provide website content in languages other than English?

Review survey



Thank you for participating!

Send thoughts, suggestions, and feedback to zakiya@innovation.ca.gov.

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State Web Template V6

Yesenia Gutierrez
Product Lead
Art Khomishen
Web Design and Development Manager
California Department of Technology

California Department of Technology
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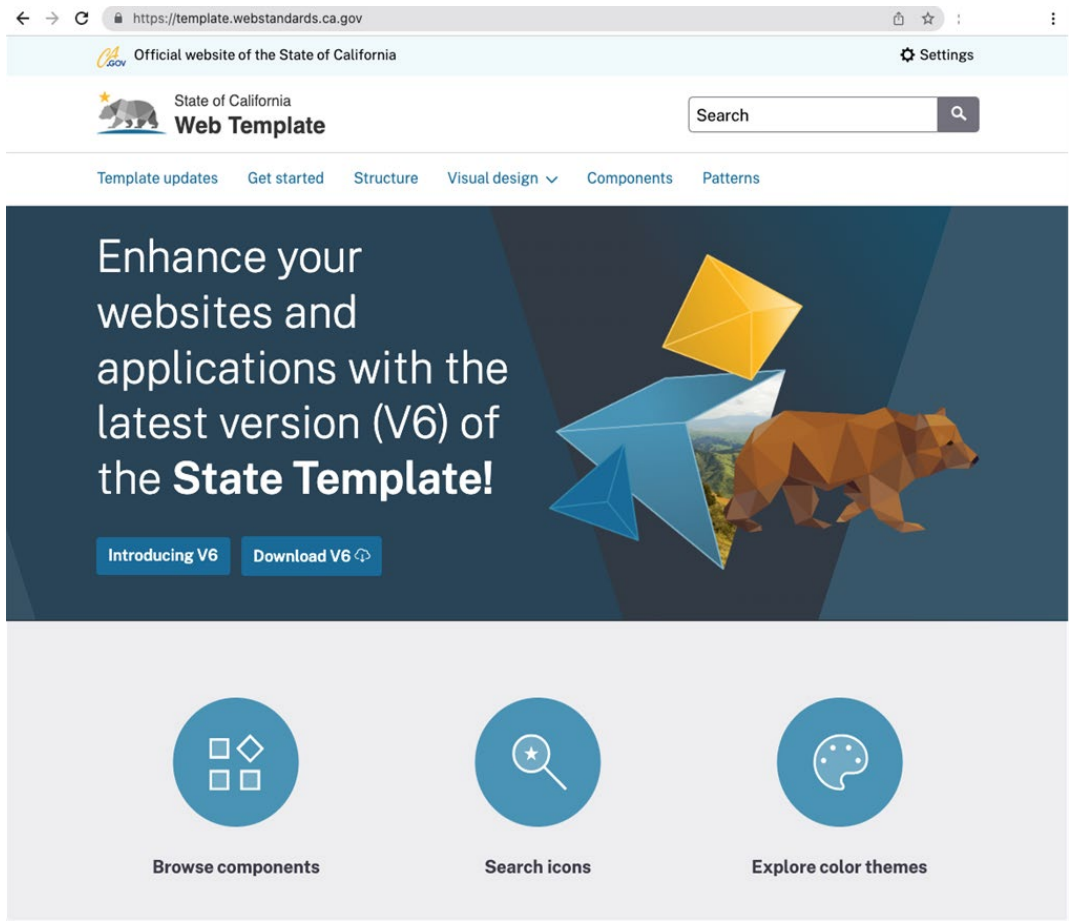
Template tour

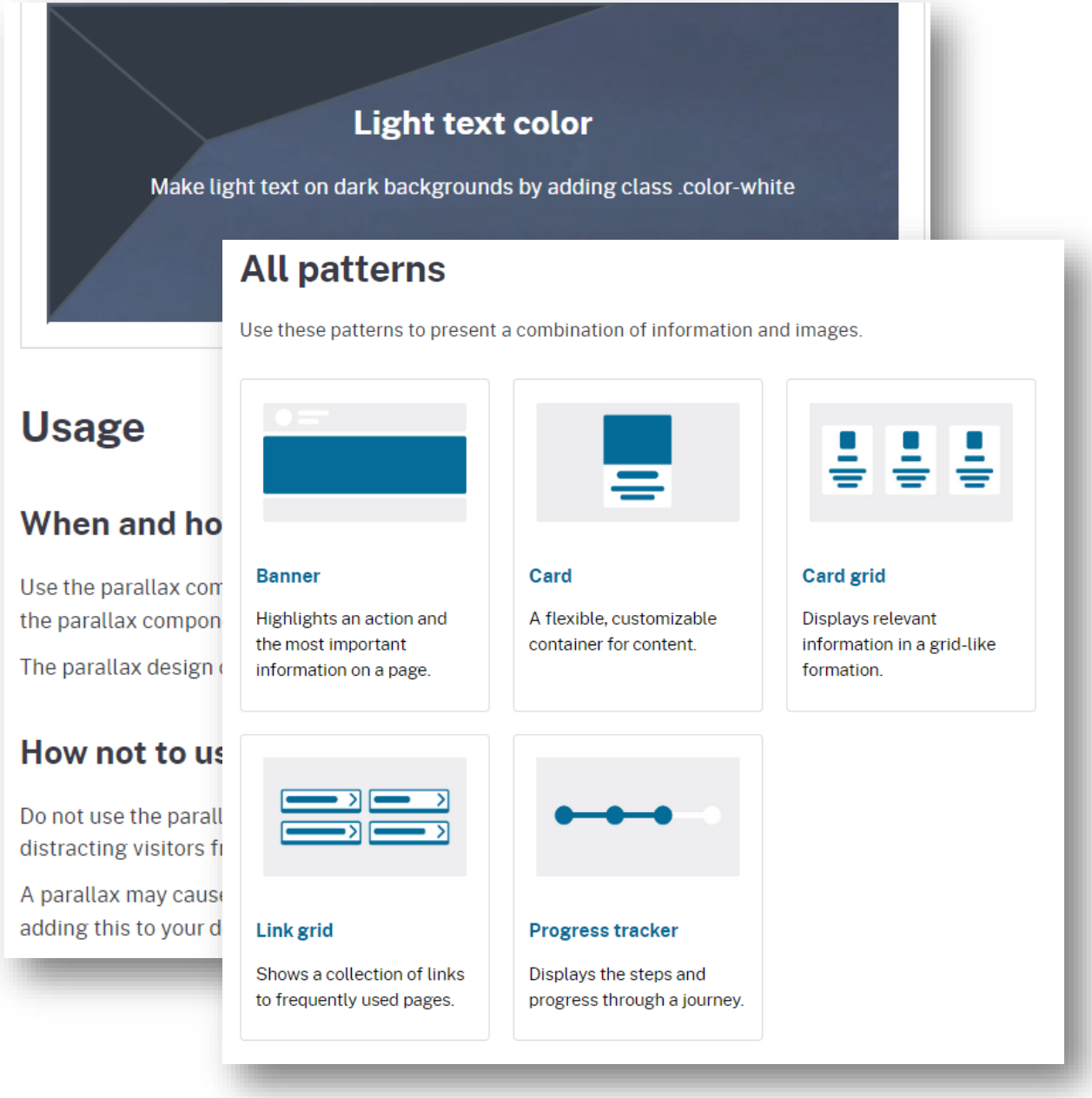
template.webstandards.ca.gov

- What's new in V6
- Features and components
- Technology improvements
- Feedback & UX improvements



What’s new in V6?

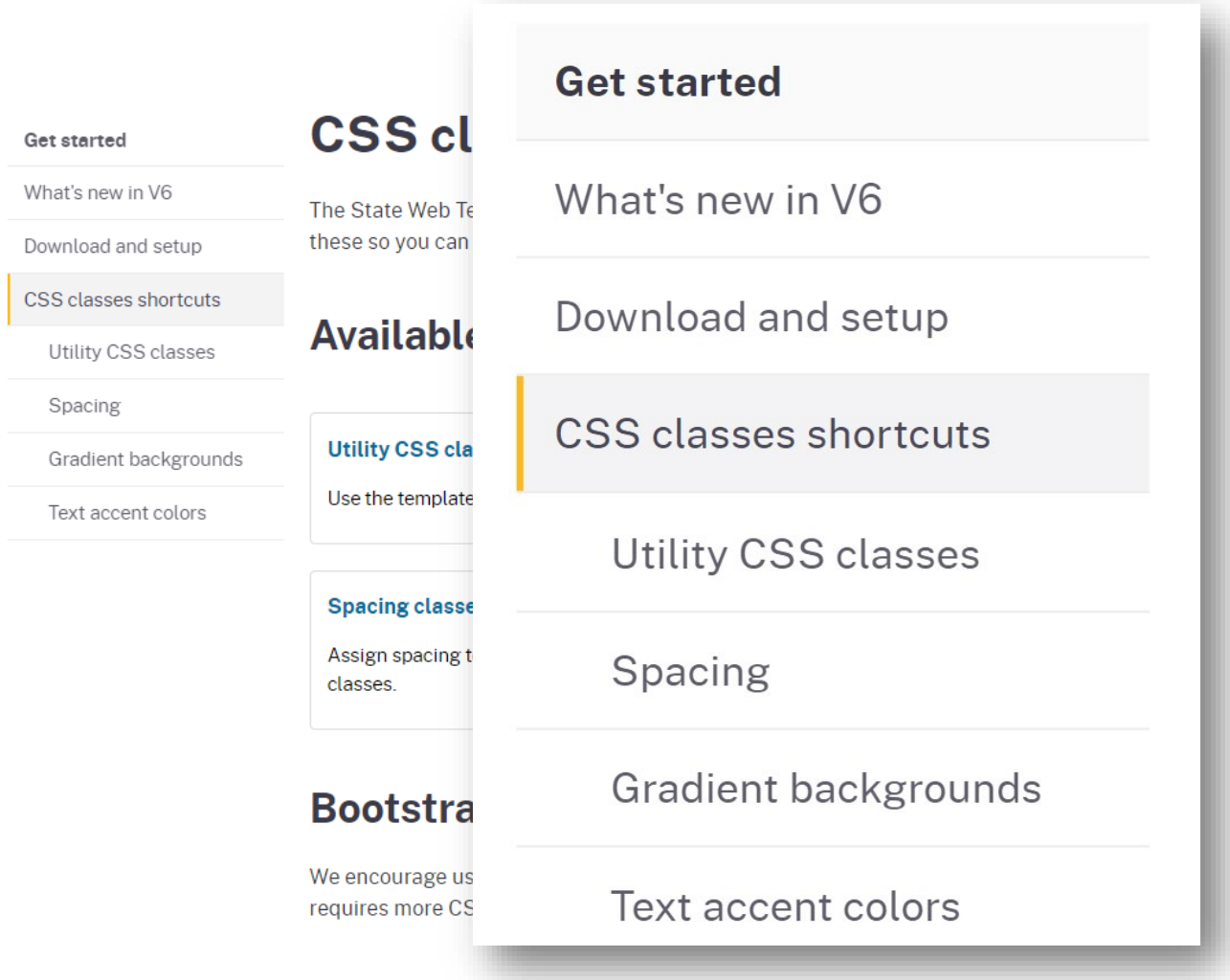
- New patterns section
- Code
- Navigation
- Visual design
- Component updates
- User experience
- Brand new content



Features and components

Side navigation

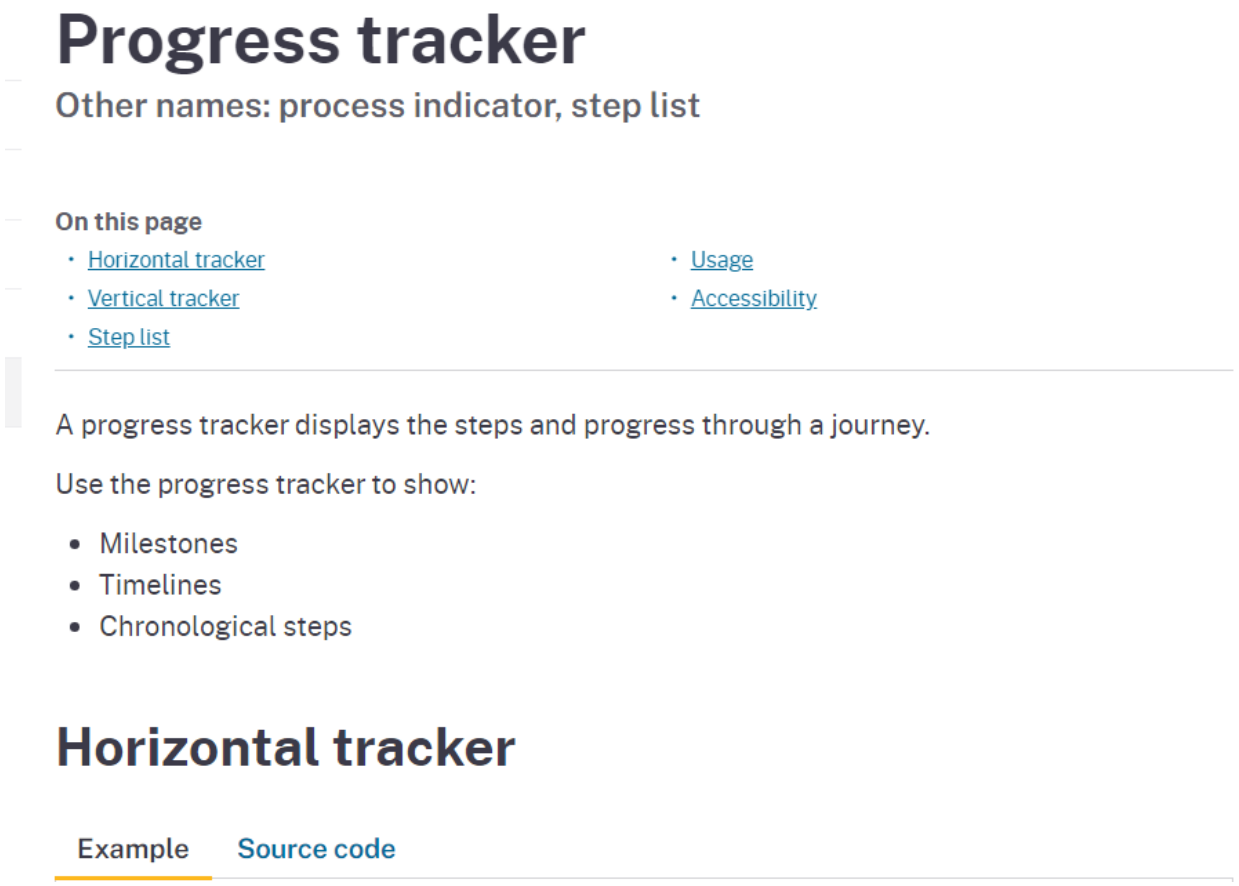
- complements site navigation
- helps visitors scan and choose content



Features and components (1 of 2)

Page navigation

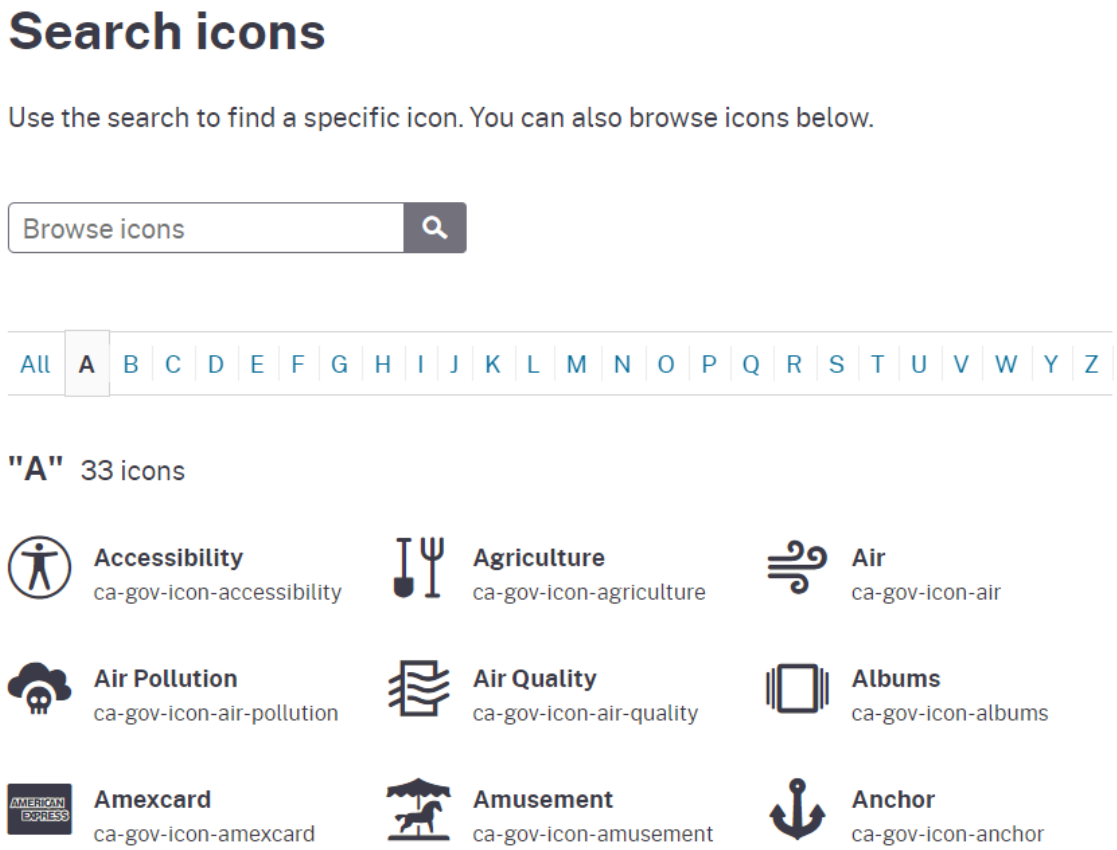
- Lists and links to page headings
- Allows visitors to quickly scan page content



Features and components (2 of 2)

Icon

- Added a new search feature
- Can filter search by letter or see all icons
- Added pagination
- Made some changes based off feedback



Feedback and UX improvements

Icon

Search

Feedback

“The icons were **difficult and hard to find**.”

"Everything is set up well, except for having a **search for the icons**."

Changes

- Added Search functionality to the icons page
- Options: full list, pagination, and alphabetical pages
- Added key words to search

Feedback and future UX improvements

Content

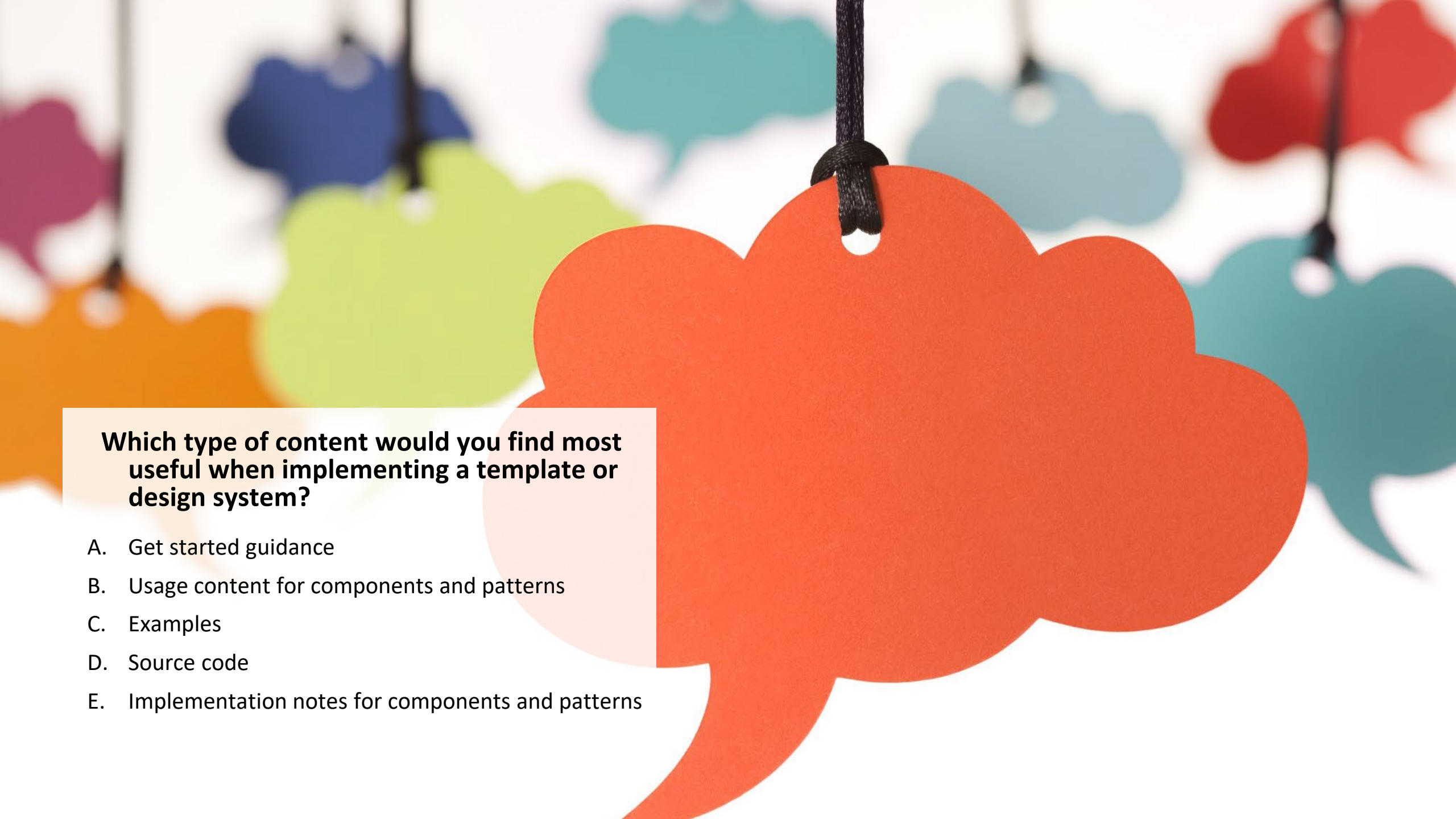
clarity

Feedback

“nunjucks ... eleventy ...? sure hope you plan to **explain** — whether directly or by linking to a resource — **what those are**” (explain jargon)

Changes

- Reorganizing content
- Expanding content to explain terms
- Adding further content on implamentation



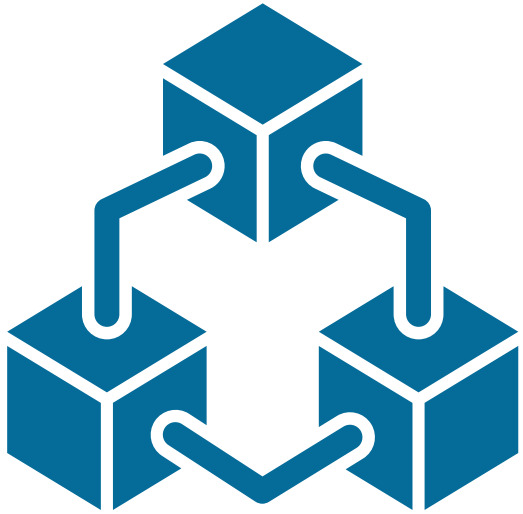
Which type of content would you find most useful when implementing a template or design system?

A. Get started guidance
B. Usage content for components and patterns
C. Examples
D. Source code
E. Implementation notes for components and patterns

Technology improvements (1 of 2)

Eleventy setup

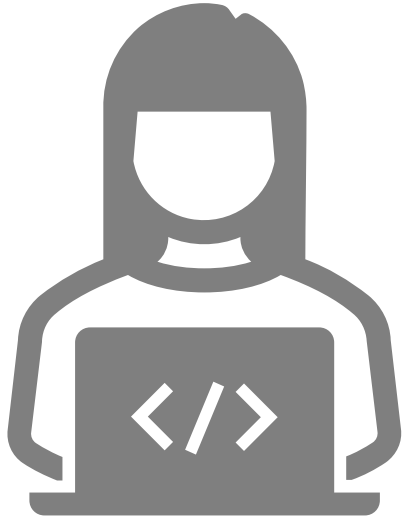
- Replaced SSI includes with eleventy includes that don’t need designated server setup to view the site
- Site can be built and viewed locally by running simple NPM commands
- Eleventy is compiling SASS, includes and data files into performant static output



Technology improvements (2 of 2)

Markdown

Content editors can use simple markdown that can be compiled into HTML



New frameworks adaptations

- React
- MVC Core

Implementing the new web template

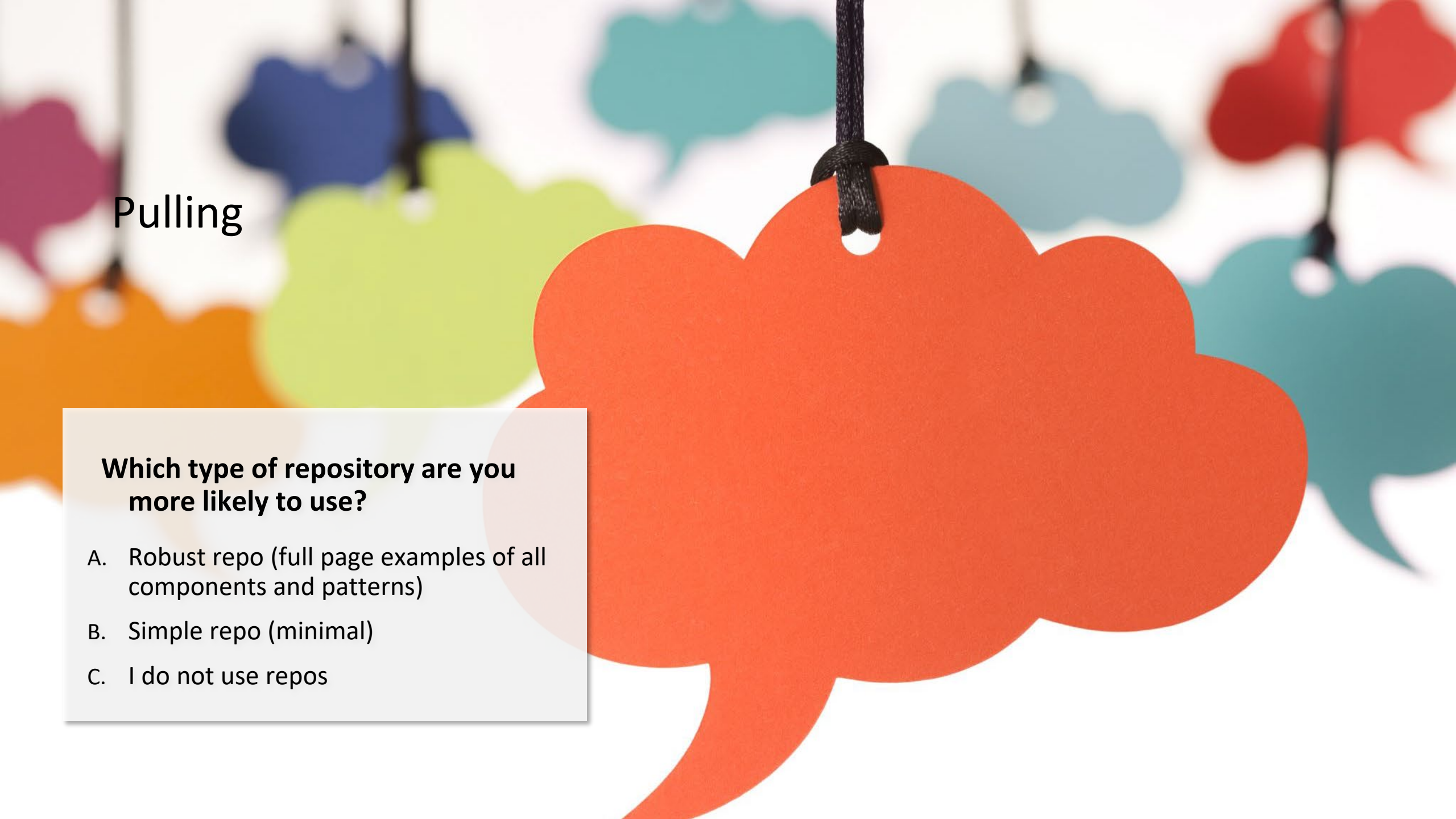
- Getting started with V6
- Selecting a framework
- Understanding the differences

Legacy web template support

5.6 or earlier: no longer supporting past 2023 (legacy template)

6.1+: Continue to support **this** version

Implementation Q&A



Pulling

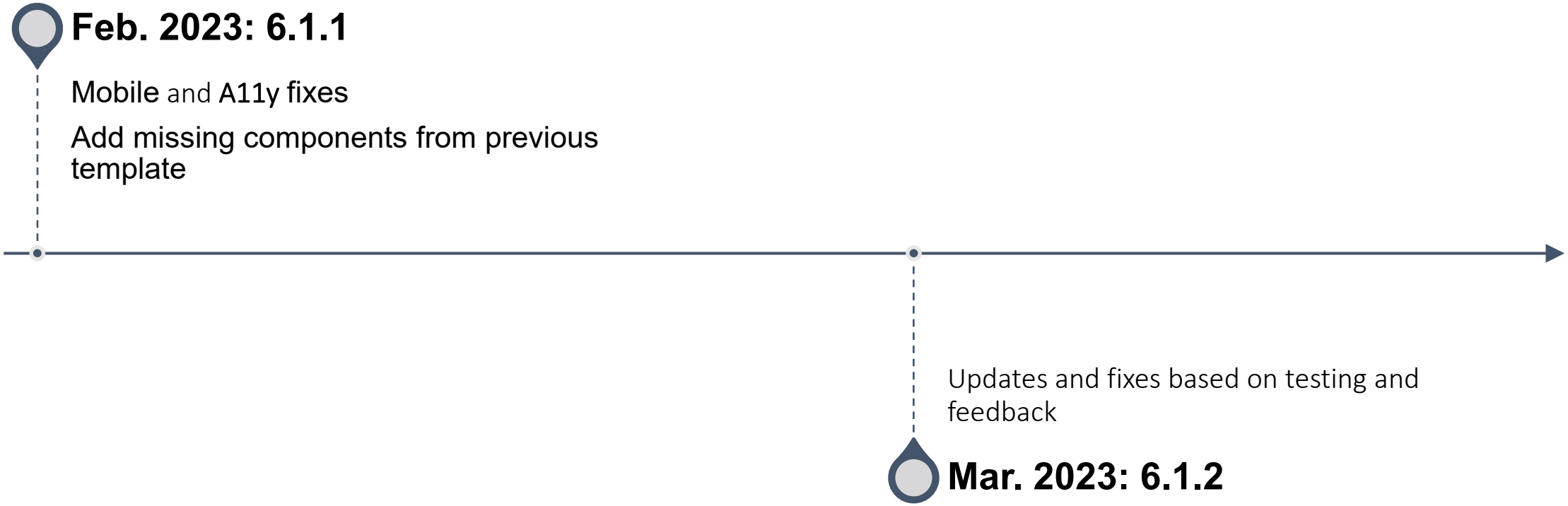
Which type of repository are you more likely to use?

A. Robust repo (full page examples of all components and patterns)

B. Simple repo (minimal)

C. I do not use repos

Upcoming releases



Moving forward

State Web Template

- Single monolithic package
- Bootstrap dependent
- Heavy CSS files
- Currently has 5 different repositories with framework adaptations

California Design System

- Collection of independent components
- Framework independent
- Lightweight and performant
- Technology agnostic

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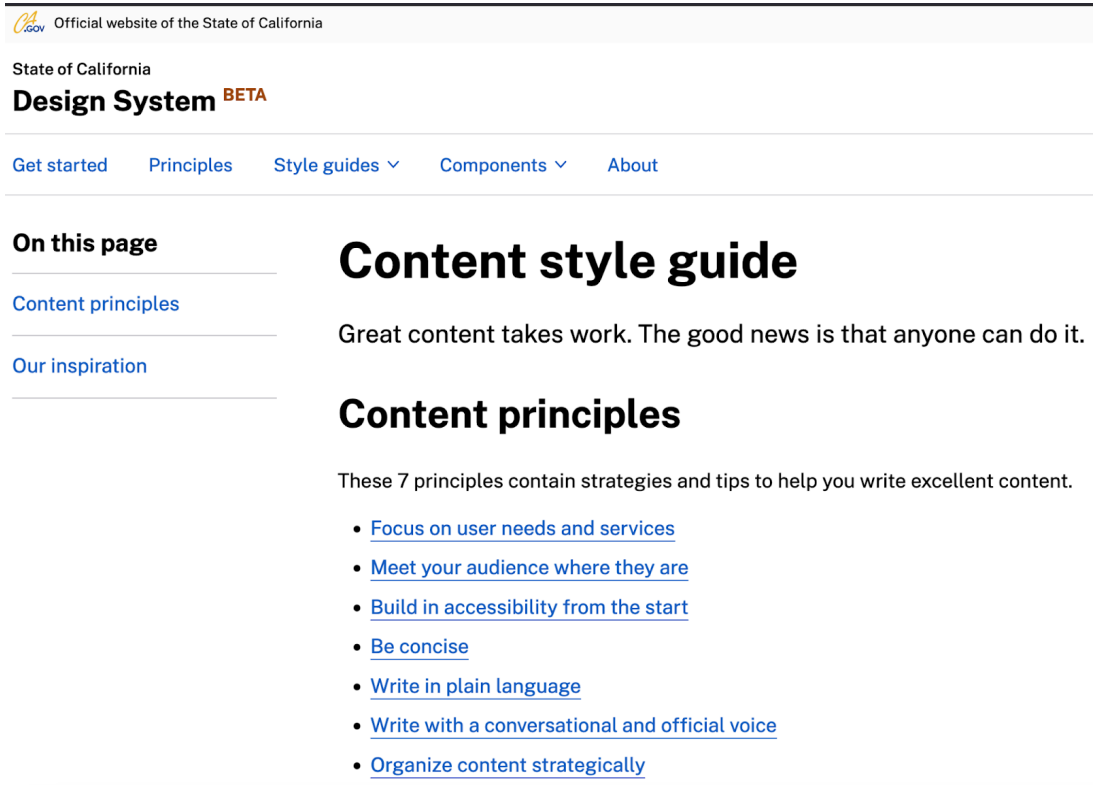
Big Idea:
Bringing State Content Designers Together

Michael Sullivan
Content Strategist
Office of Data & Innovation

Content design is…

Writing in a way that’s easy to understand and helps people do what they need to do

designsystem.webstandards.ca.gov



Includes:

- Why it's important
- How to do it
- What not to do

We’re thinking about…

How we can make it easier for state staff to do content design

Idea #1: a network

- Connect with people who write digital content at the state
- Ask for help or support
- Share experiences
- Learn from each other

Idea #2: short tips

- Best practice reminders
- One idea per tip
- Delivered regularly
- Real examples from state services and websites

Excited?

We want to connect with you

michael@innovation.ca.gov

https://innovation.ca.gov

@californiaODI

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2023 Accessibility Certification Update

Greg Duncan

Digital Accessibility Specialist

California Department of Technology

Accessibility Update

- Reminder July 1st, 2023 - Certifications need to be Posted for Websites
- WCAG 2.2 update has been updated to Early 2023
- State Template V6

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Google Analytics 4 (GA4) Update

David Goebel
Google Analytics and Search Administrator
California Department of Technology

Google Analytics 4 (GA4) Update

- Universal Analytics' sunset date is currently July 1, 2023.
- Standard (free) UA properties can access historical data up until December 31, 2023.
- Optimized (paid) UA 360 properties can access historical data up until December 31, 2024.
- The Analytics team is continuing to build new GA4 properties and contact state agencies.

- As of today:
  - ✓ Total managed Google Analytics Accounts: 250
  - ✓ Total created properties: 220
  - ✓ New properties already collecting data: 113
  - ✓ New properties not yet collecting data: 107

- You can reach out directly to analytics@state.ca.gov to request your new GA4 account/property.
- For more information, please visit https://webstandards.ca.gov/transition-from-universal-analytics-to-google-analytics-4/

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Big Idea:
Web Components

Aaron Hans
Tech Lead
Office of Data & Innovation

California Department of Technology
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cdt.ca.gov/dwsn

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W3C standard component model

Web components are in use all over

Best parts

Custom Elements

Shadow DOM

I’m sold, gimme some cool components

https://webcomponents.today/standalone-elements/

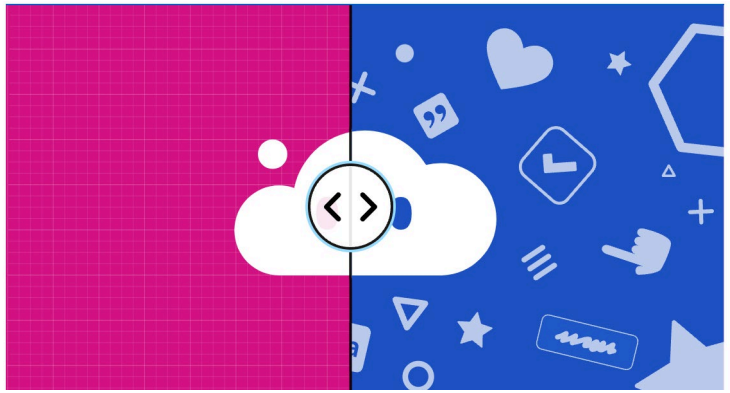
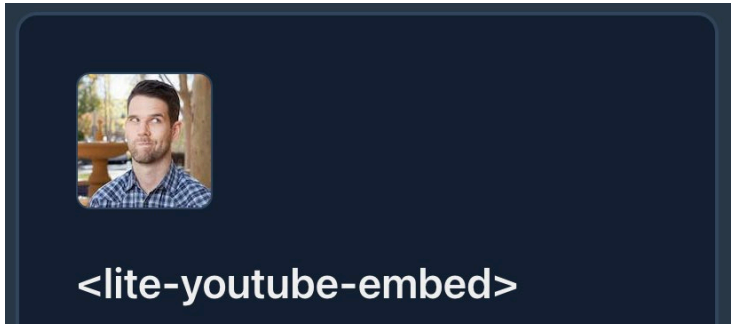


Image comparison slider



Embed YouTube with less overhead

3D model viewer

Additional resources

- Tutorials
  - HTML with super powers
  - Introducing web components
- Josh Wordle on syntax.fm talking about how he built Wordle including his choice of web components for UI
- Why web components from the CA design system
- More design systems built from web components
- Why web components from Microsoft's design system
- Server side custom element rendering with Lit or with 11ty

Digital Mistakes to Avoid in 2023

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Koji Kumpulainien
Web Consulting Manager
California Department of Technology

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Disclaimers

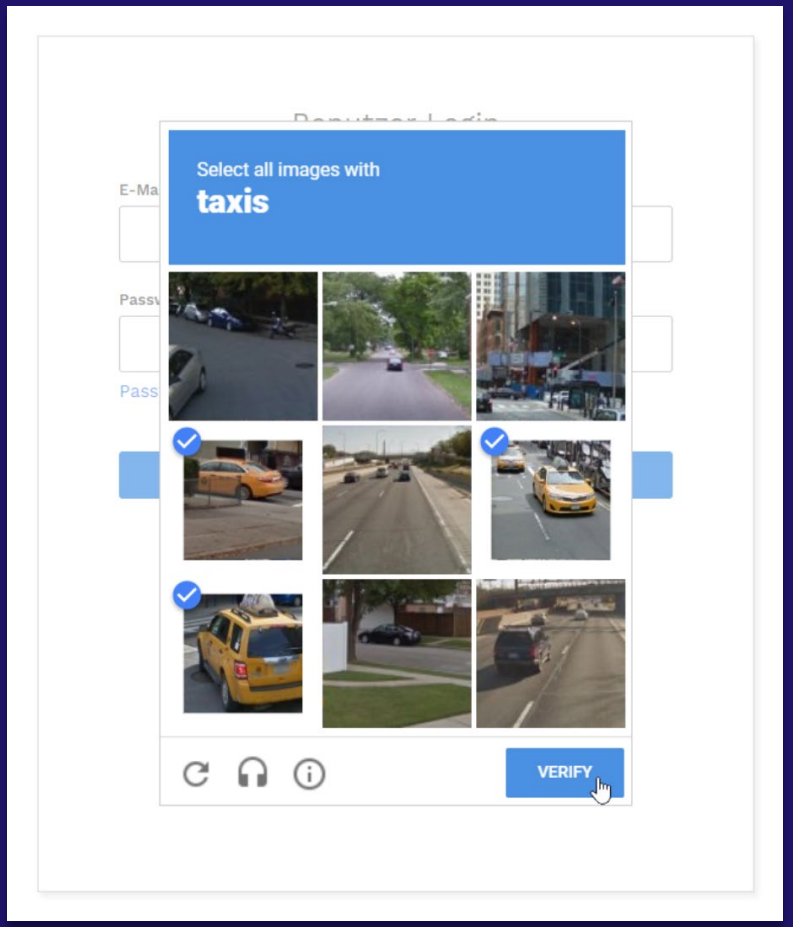
- It’s OK to make mistakes
- Do your best not to break these specific rules

Innovation often requires us to break the rules

Mistake #1

CAPTCHAs

(**C**ompletely **A**utomated **P**ublic **T**uring test to tell **C**omputers and **H**umans **A**part)



Problems with CAPTCHAs

- Not accessible
- Culturally biased
- Puts the burden on users
- Easy for robots, hard for humans

Alternatives to CAPTCHAs

- Monitoring
- Scaling (containers and a CDN [content delivery network])
- Honeypot
- Multifactor or biometric authentication
- Limit IP addresses to U.S. only (if possible)

Mistake #2

Carousels

Problems with Carousels

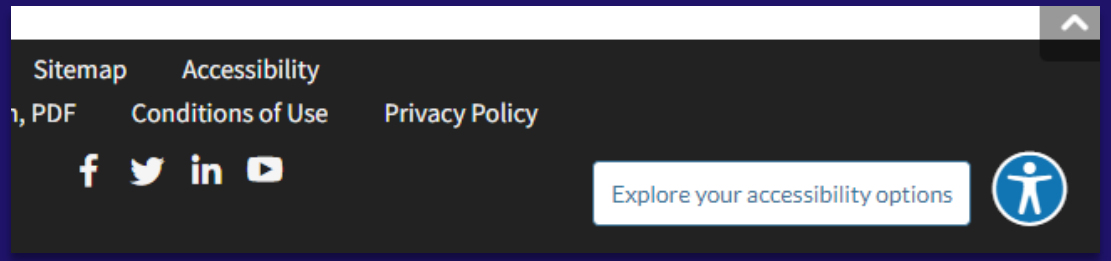
- Low conversion (banner blindness)
- Rarely performant (slow load times)
- Hurts SEO (often not marked up properly to identify content for search engines)
- Auto scrolling, or lack of controls creates a negative experience for all (not just assistive technology users)

Alternatives to Carousels

- Go vertical:
  - People are used to, and will scroll vertically
  - Optimize images for web (lossless format) or lazy load
- Cards
- Regardless:
  - Use proper markup to optimize SEO
  - Remember to add meaningful alt text for images

Mistake #3

Accessibility Overlays



Problems with Overlays

- They don't work
- Once you remove the feature, the "fixes" go away
- They don't prevent you from getting sued, or share any of the burden
- Over 700 accessibility professionals have signed the https://overlayfactsheet.com/, declaring that overlays are not an effective means of ensuring accessibility

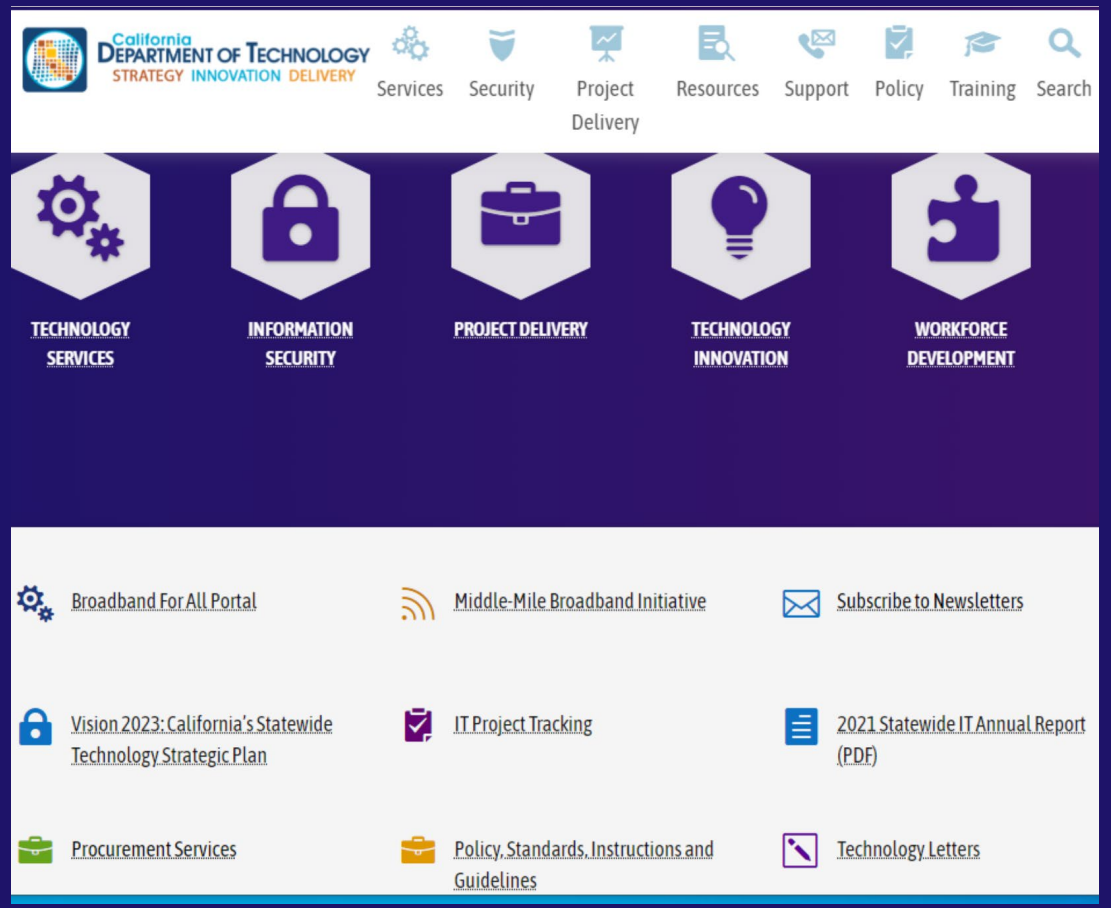
Alternatives to Overlays

- Inclusive design
- Remediate at source
- Less PDFs
- Use the latest version of the state template or the Design System

Mistake #4

Making everything stand-out:

- Alert banners
- Icons



Problems with Everything Everywhere All at Once

- Likely to ignore multiple alert banners
- Not very many universally understood icons
- Makes it harder to scan
- Increased cognitive load / interaction cost

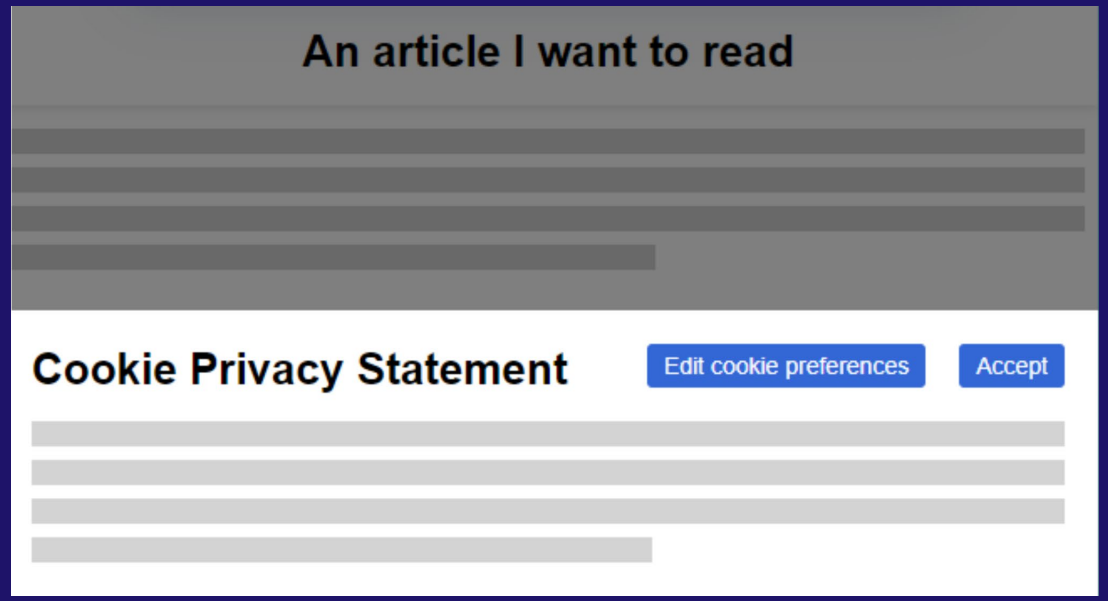
Alternatives to Everything Everywhere All at Once

- Keep it simple
- Establish a visual hierarchy using:
  - Different types of imagery (photos, illustrations, icons)
  - Color
  - Size
  - Appropriate use of white space (everything is a box)

Mistake #5

Pop-ups:

- Cookies
- Terms of agreement
- You are leaving
- Surveys



https://how-i-experience-web-today.com/

Problems with Pop-Ups

- They can become frustrating for users
- People don't read, they quickly click out of these
- Accessibility concerns, especially keyboard traps
- Increased interaction cost (makes people think)
- Like carousels, negatively impact SEO and performance

Alternatives to Pop-ups

- Only use where appropriate, like "you're about to delete everything, and you can't get it back".
- Use a different page
- Don't.

Avoiding these mistakes creates more time and space for **building better websites**.

Happy innovating.

Questions?

Open Discussion

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Suggested Future Topics
Closing Remarks

Blaine Wasylkiw

Acting Deputy CTIO & Chief Web Officer
California Department of Technology

Thank you

Post conference materials will be published on the DWSN Website.

For questions, please write to: DigitalWebServicesNetwork@state.ca.gov

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Bringing together digital product managers, designers, and engineers.

California Department of Technology
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DIGITAL WEB SERVICES NETWORK

Bringing together digital product managers, designers, and engineers.

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