



Week 11 & 12

**DECO 1400/7140 Intro
to Web Design**

University of Queensland

Semester 1, 2022

Website Implementation

- Demos due this week (Week 11) – attendance is compulsory
- Assignment due date: **30 May**
Your source code + report (zip file)
- Presentation: During class time (Week 13)

We require at least 4 unique, meaningful interactions implemented with JavaScript, if you are aiming for Distinction/High Distinction

JS implementation

Website Implementation (33%) & Report (%7) - Due 30 May:

You should use HTML5, CSS and JavaScript to implement your website (4-20 web pages). The website should be flexible and work on tablet and mobile devices as well.

You also have to produce a maximum 7-page report (Paper size: A4, font: 12) including summary of implementation (HTML/CSS/JavaScript usage), screenshots of the website, challenges faced, and lessons learnt as well as an evaluation of your website using Nielsen's ten Usability Heuristics, Conclusions and Future Work. You should explain how many of the usability heuristics covered in the course have been met in your final website and how. 7 pages does not include references and title page. Feel free to use an appendix, if you need extra space.

Your website files & folders should follow the structure below:

- ***index.html***
 - Your home page file should always be named ***index.html***, stored at the root.
- ***[...].html***
 - Include all other HTML files for your website
- ***css***
 - ***style.css***
Your main CSS file should be named ***style.css***.
 - Where possible & to improve portability of your website files, ensure any CSS files you've used with JavaScript plugins are downloaded locally and placed in this folder (if you're using any plugins).
- ***images***
 - All images should be contained in this folder.
- ***js***
 - ***script.js***
Your main JavaScript file should be named ***script.js***.
 - Where possible & to improve portability of your website files, ensure any JavaScript files you've used with JavaScript plugins are downloaded locally and placed in this folder (if you're using any plugins). Also, download a copy of jQuery JavaScript file and place it in this folder as well (if you're using jQuery for this assignment).
- ***files***
 - All other files should be contained in this folder. That includes your Website Implementation **Report** (in MS word or PDF format).



Submission

Submission link will be available on BB next week

Zip the folder, name it

FirstNameLastNameStudentID.zip (e.g.

ClaireZhao123456.zip) and submit it on Blackboard
by 1pm on 30 May.

Submit your poster by 3 June, 4pm (separate link)

Culturally Responsive Design

Remember personas

Keep cultural differences in mind
when designing a website/product

Culturally responsive design

The image displays two side-by-side screenshots of e-commerce websites, separated by a vertical line with a red circle containing the letters "VS".

Left Website (LEGO.com): This screenshot shows the LEGO.com homepage in Korean. A prominent feature is a modal window titled "LEGO.com is available in the following languages:" which lists language and country pairs. The listed languages include:

- ČEŠTINA / ČESKÁ REPUBLIKA
- DANSK / DANMARK
- DEUTSCH / DEUTSCHLAND
- ENGLISH / UNITED KINGDOM
- ENGLISH / UNITED STATES
- ESPAÑOL / LATINOAMÉRICA
- ESPAÑOL / ESPAÑA
- FRANÇAIS / BELGIQUE
- FRANÇAIS / FRANCE
- ITALIANO / ITALIA
- MAGYAR / MAGYARORSZÁG
- NEDERLANDS / BELGIË
- NEDERLANDS / NEDERLAND
- NORSK, BOKMÅL / NORGES
- POLSKI / POLSKA
- SUOMI / SUOMI
- SVENSKA / SVERIGE
- РУССКИЙ / РОССИЯ

Right Website (Tmall.com): This screenshot shows the Tmall.com homepage in Chinese. The page features a large, vibrant blue banner with yellow text and graphics. The main headline reads: "NOW IS ALIVE, FUN AND FEARLESS, NOW IS REFRESHING, NOW IS EPIC. AND MOST OF ALL, NOW IS WHAT WE MAKE IT. SO COME GET INSPIRED, SHARE SOMETHING, OR JUST SEE WHAT'S UP. IT'S TIME TO LIVE FOR NOW." Below this, there are several promotional sections with Chinese text and images.

“Every culture contains a deepness and richness that comes when groups of people get together. As we design for ever larger audiences and as the web reaches deeper into homes and private lives, we need to think more about how our sites contribute to those cultures. We need to adapt them to a wider variety of situations beyond simply viewport or pixel width. How do we make our fellow humans comfortable with our interfaces and site?

Start using cultural queries in our designs.”

Creative Bloq, <https://www.creativebloq.com/design/cultural-factors-web-design-3135752>



Website Design in High-Context Cultures like China

Context

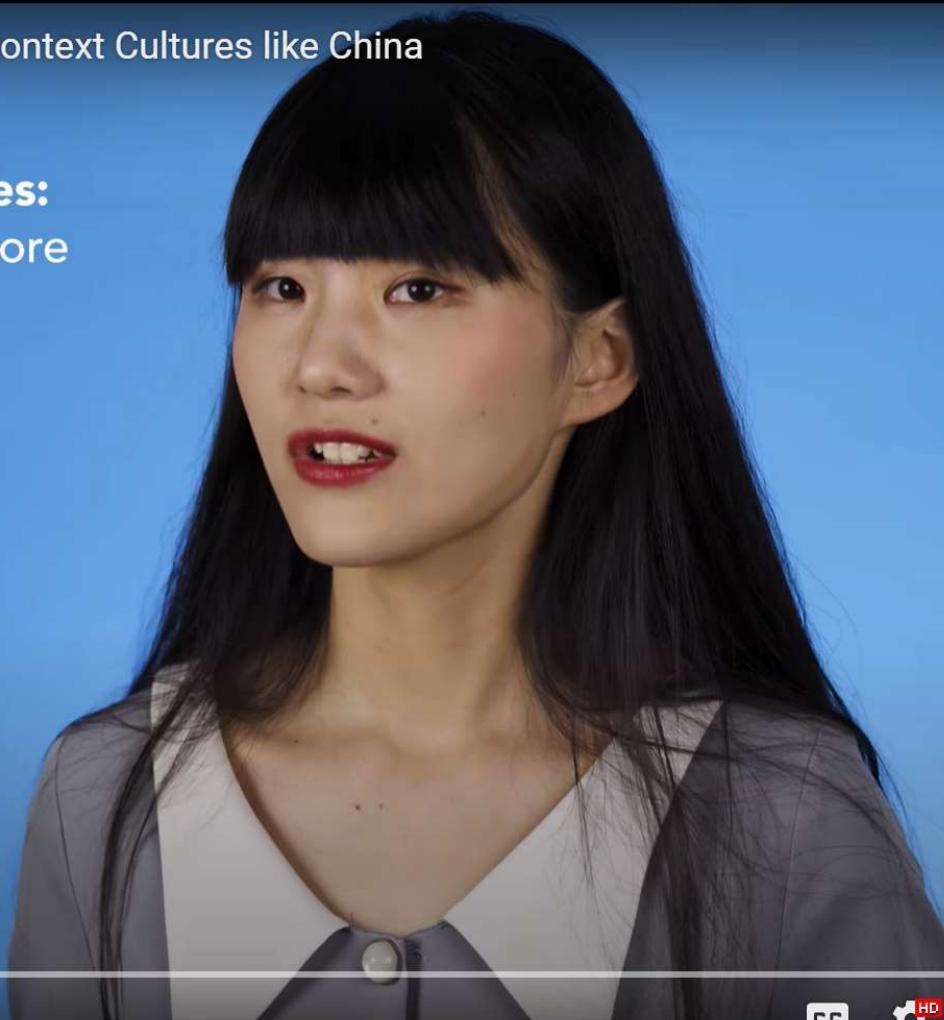
- **Low-context cultures:**
communicate in a more direct way



Watch later



Share



0:52 / 3:41



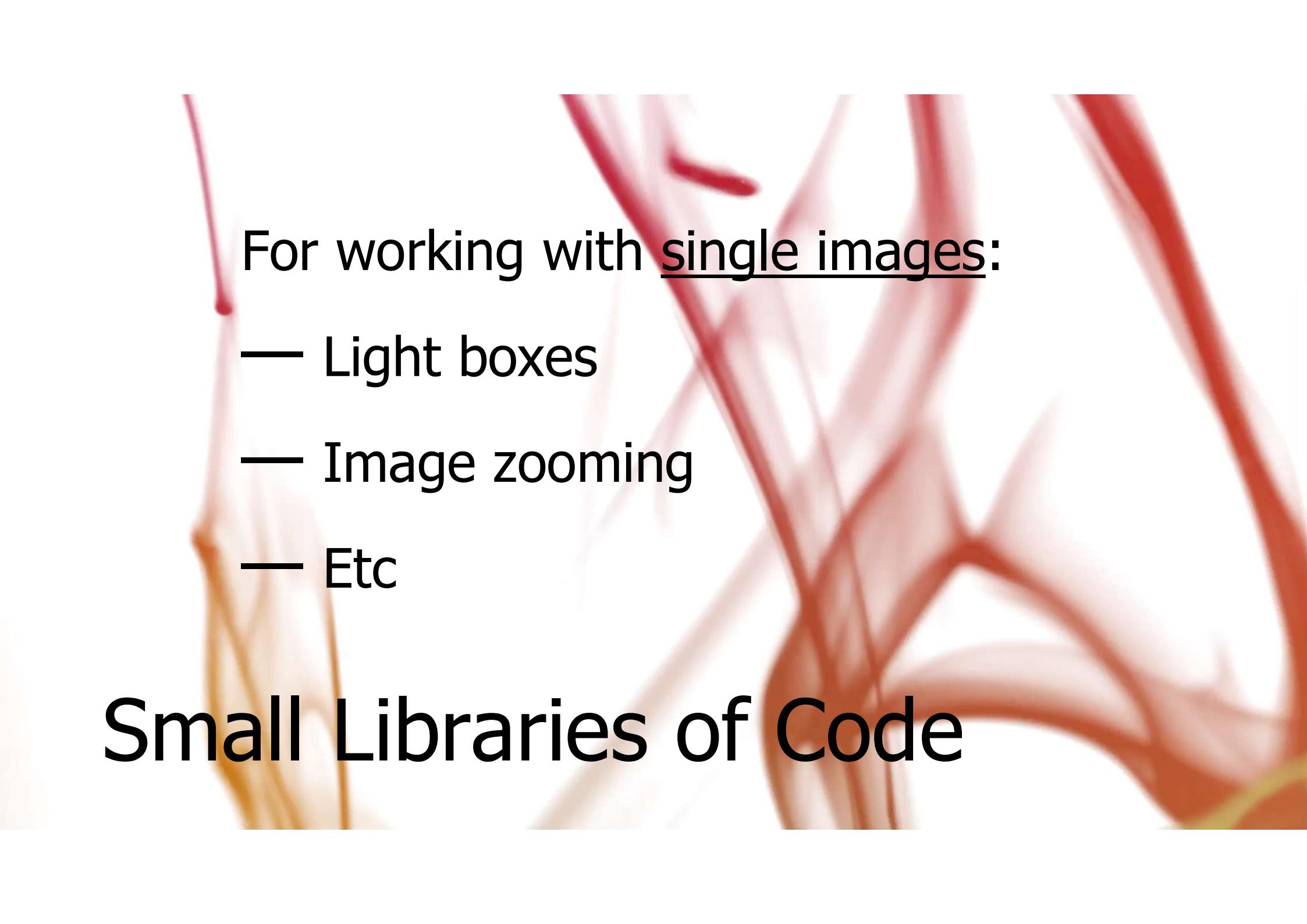
YouTube



<https://www.nngroup.com/videos/website-design-high-context-cultures/>

Introducing JavaScript Plugins

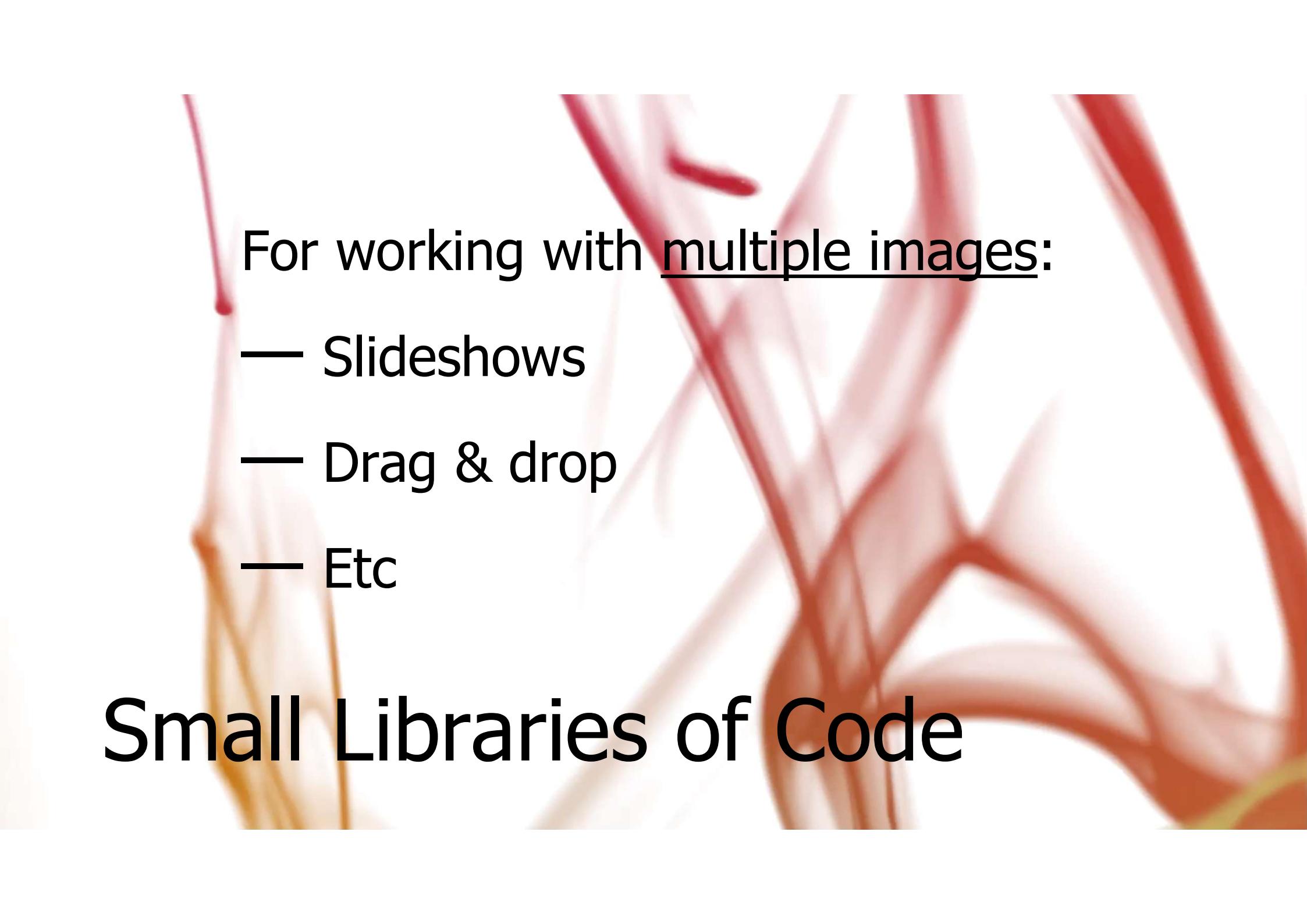




For working with single images:

- Light boxes
- Image zooming
- Etc

Small Libraries of Code



For working with multiple images:

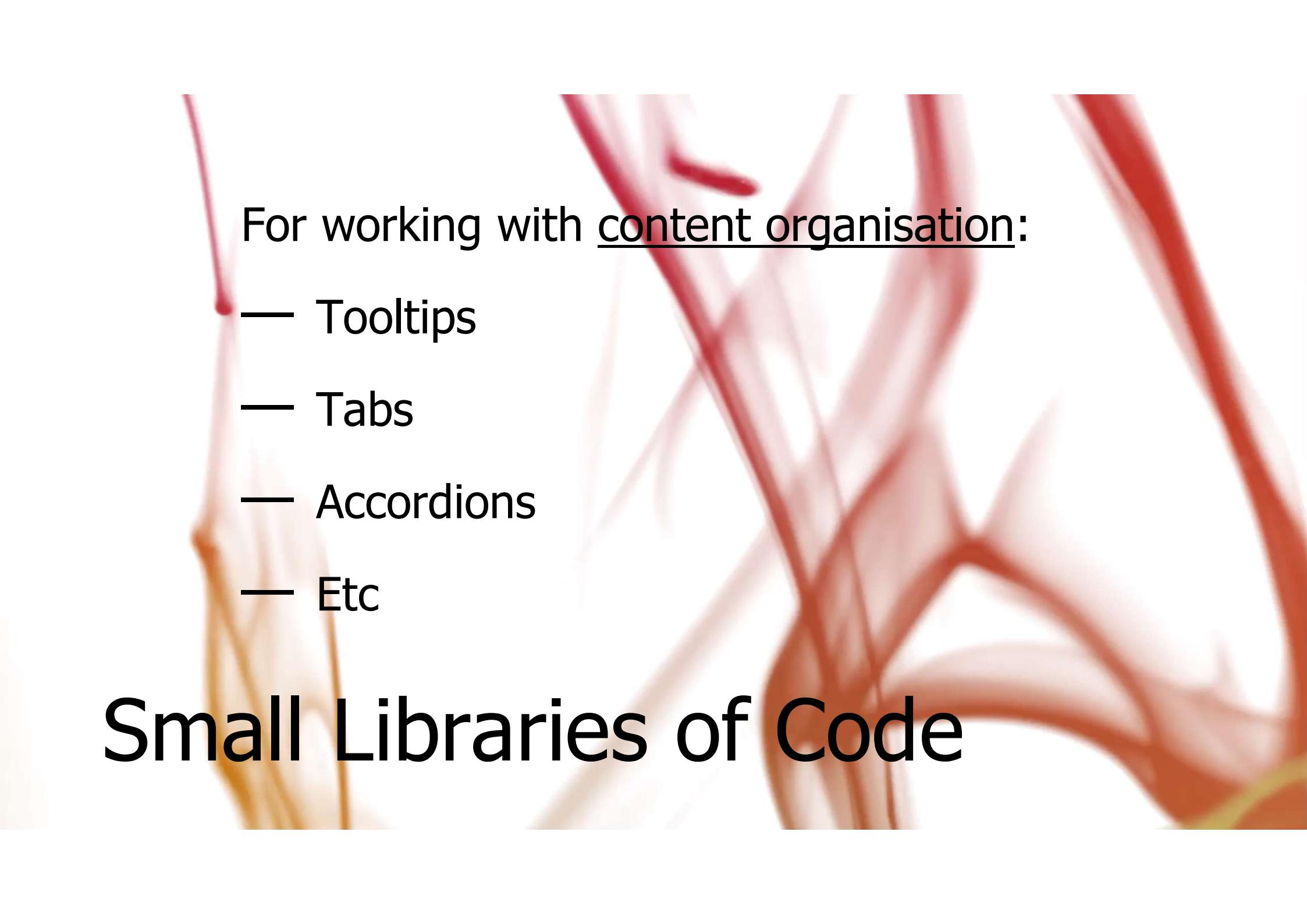
- Slideshows
- Drag & drop
- Etc

Small Libraries of Code

For working with forms:

- Error validation
- Date pickers
- Autocomplete
- Etc

Small Libraries of Code



For working with content organisation:

- Tooltips
- Tabs
- Accordions
- Etc

Small Libraries of Code

Look for well-documented plugins

Look for regularly updated plugins

Look for plugins that work with
your library (e.g. jQuery)

Look For When Choosing

Can bloat a page:

- Feature-heavy plugins
are usually code-heavy plugins
- Look for minimal bloat (size or load)

Can cause conflicts with other JavaScript:

- Self-coded or other plugins included

Look For When Using

Yes, but for simple functionality only

It should not replace the need for your own style/JS code

Reference anything you use from external sources (preferably in both documentation and source code)

Can I Use JS Plugins in My *Website Implementation?*

Integrating JS Plugins

```
<script src="js/jquery-3.6.0.min.js"></script>
<!-- Below is a plugin that relies on jQuery: --&gt;
&lt;script src="<u>js/jquery.cycle2.js"></script>
<!-- So it should be placed here so it can be used. --&gt;
&lt;script src="<u>js/script.js"></script>

</body>
</html>
```

Let's keep integrating plugins simple!

Package management is more suited
to large websites or web apps

— Usually for automatic
updating/integrating of plugins

Why We're Not Using JS Build Systems

scrollClass.js:

<http://www.virgiliudiagonu.com/work/scroll-class>

- Animate elements in as you reveal/scroll past them
- Elements can slide/pop/fade/etc in
- Adds dynamism/liveliness to the page

Animating In On Scroll

Include `script` tag for plugin in-between jQuery library & your JS file:

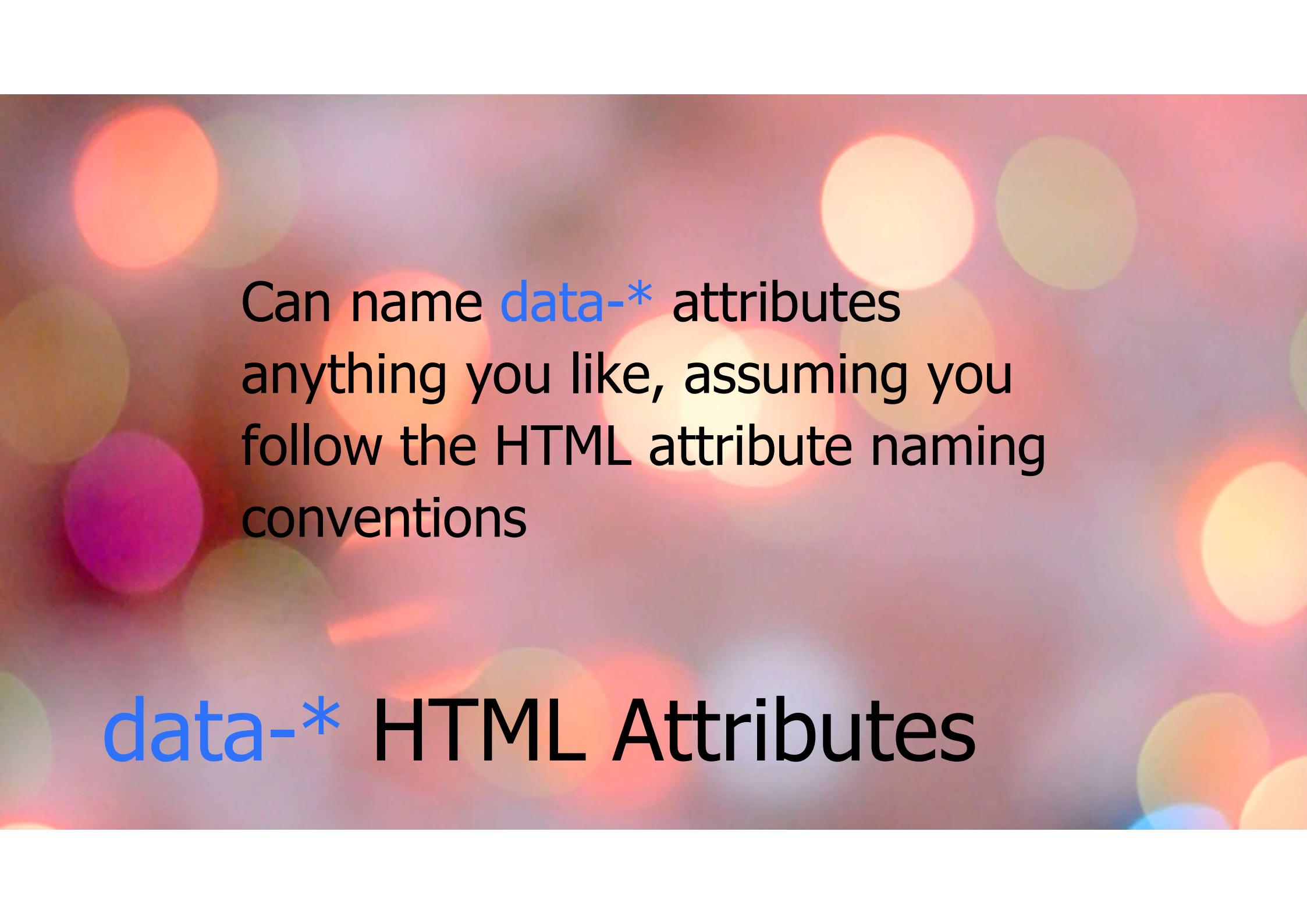
```
<script src="js/jquery-3.6.0.min.js"></script>
<script src="js/scrollClass.min.js"></script>
<script src="js/script.js"></script>

</body>
</html>
```

Initialise the plugin using the `scrollClass()` method:

```
$(document).ready(function() {
    $(".example").scrollClass();
});
```

Implementing *scrollClass.js*



Can name `data-*` attributes
anything you like, assuming you
follow the HTML attribute naming
conventions

`data-*` HTML Attributes

Add `data-scroll-class` attribute to element you'd like to animate when it becomes "visible".

```
<figure class="example" data-scroll-class="awesome-animation">
  
  <figcaption>Cat frolicking through the grass</figcaption>
</figure>
```

An "awesome-animation" class will be added whenever that element becomes

```
<figure class="example awesome-animation" data-scroll-class="awesome-animation">
  
  <figcaption>Cat frolicking through the grass</figcaption>
</figure>
```

Implementing *scrollClass.js*

scrollClass.js source & documentation:

<https://github.com/virgiliud/scrollClass.js>

- Use this to try out different plugin options, if options are available

Plugin Documentation

JavaScript vs CSS for Animations



Run animations with CSS,
but control with JavaScript

“Lowest common denominator” devices
are where performance really matters
(e.g. cheap phones, tablets, laptops etc)

JavaScript vs CSS for Animations

Sticky:

<http://stickyjs.com>

- Used to stick elements discovered when passed in scrolling

Sticking Elements On Scroll Past

Download plugin JS file and include via `script` tag:

```
<script src="js/jquery-3.6.0.min.js"></script>
<script src="js/jquery.sticky.js"></script>
<script src="js/script.js"></script>
```

Create an HTML element that will be stuck:

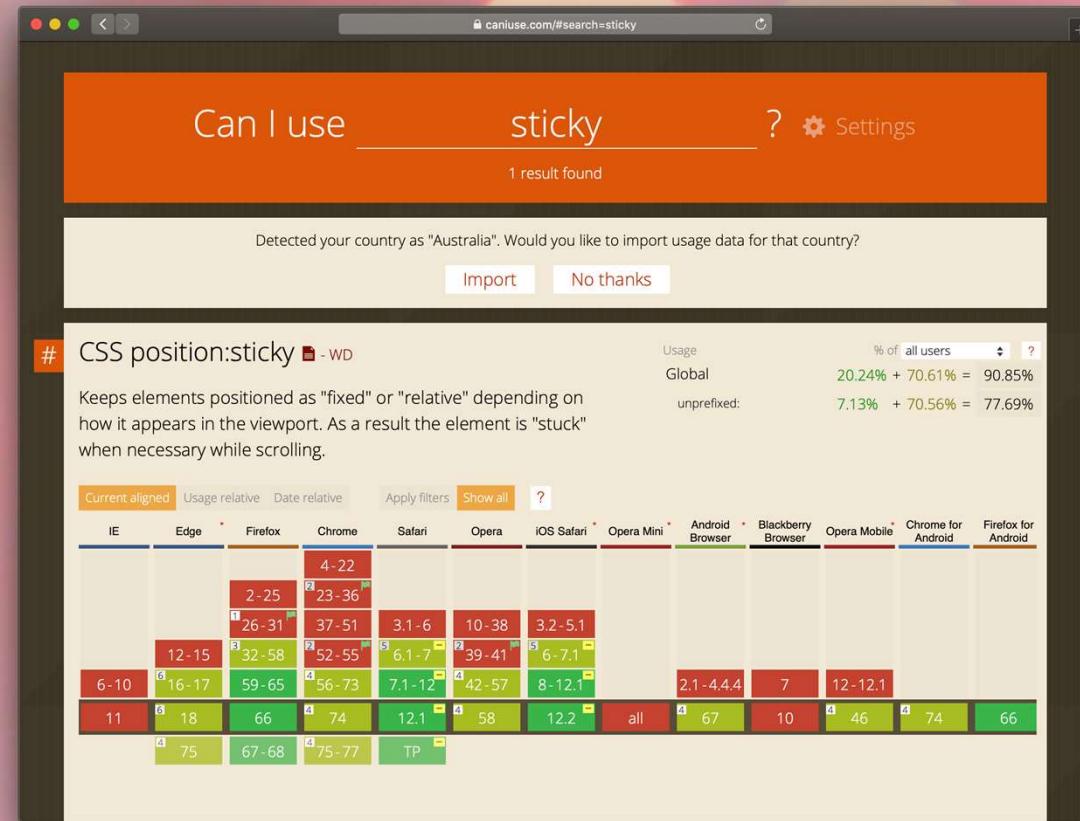
```
<nav id="sticky-navigation">...</nav>
```

In your external JS file, call `sticky()` method on the element (plus options):

```
$(document).ready(function() {
  $("#sticky-navigation").sticky({ topSpacing: 0 });
});
```

Implementing *Sticky*

CSS supports
position: sticky for
elements
in modern
web browsers



Do You Need a Plugin For That?

There are many, for example:

- ***Tiny Slider 2***

<https://github.com/ganlanyuan/tiny-slider>

- ***Cycle2***

<https://jquery.malsup.com/cycle2>

However, consider whether you
even need JavaScript to build a slideshow

What About a Slideshow Plugin?



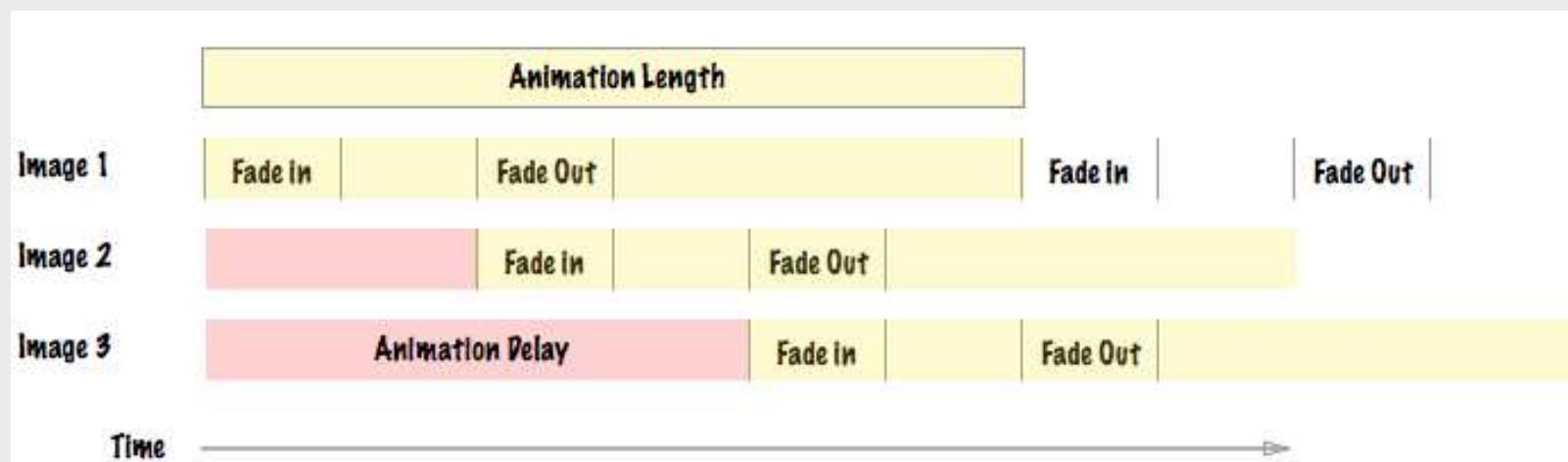
<https://jsfiddle.net/mattluscombe/45pk2etd>

Create elements for each slide

Use CSS **@keyframes** to
control fading between slides

Delay start the animation per slide

Slideshows, the CSS Way



https://snook.ca/archives/html_and_css/simplest-css-slideshow



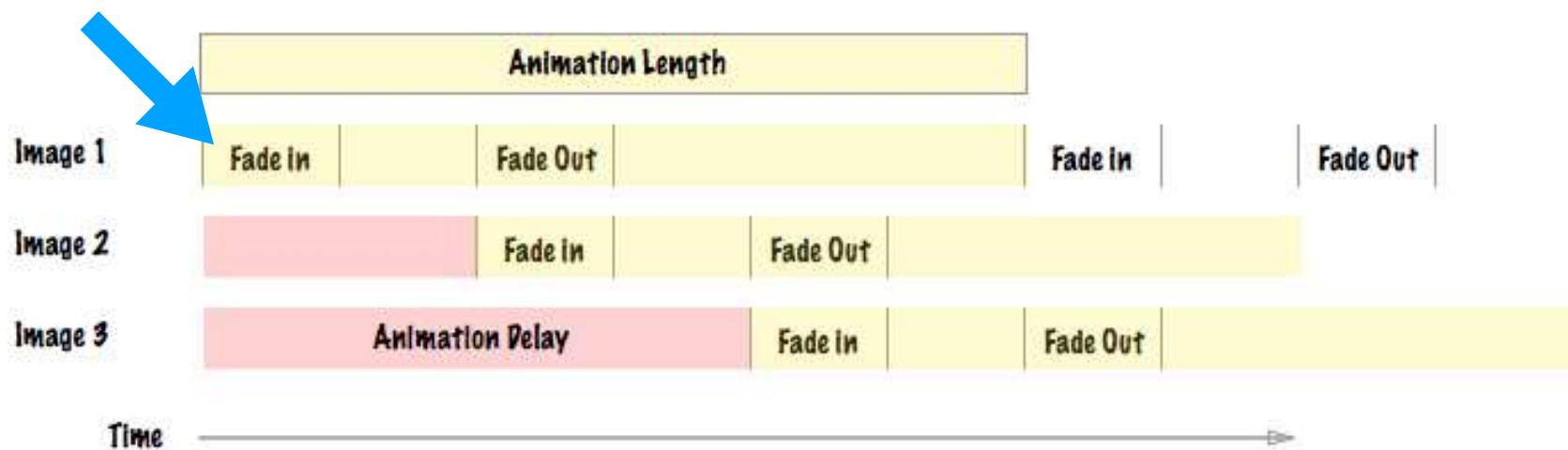
Image 1

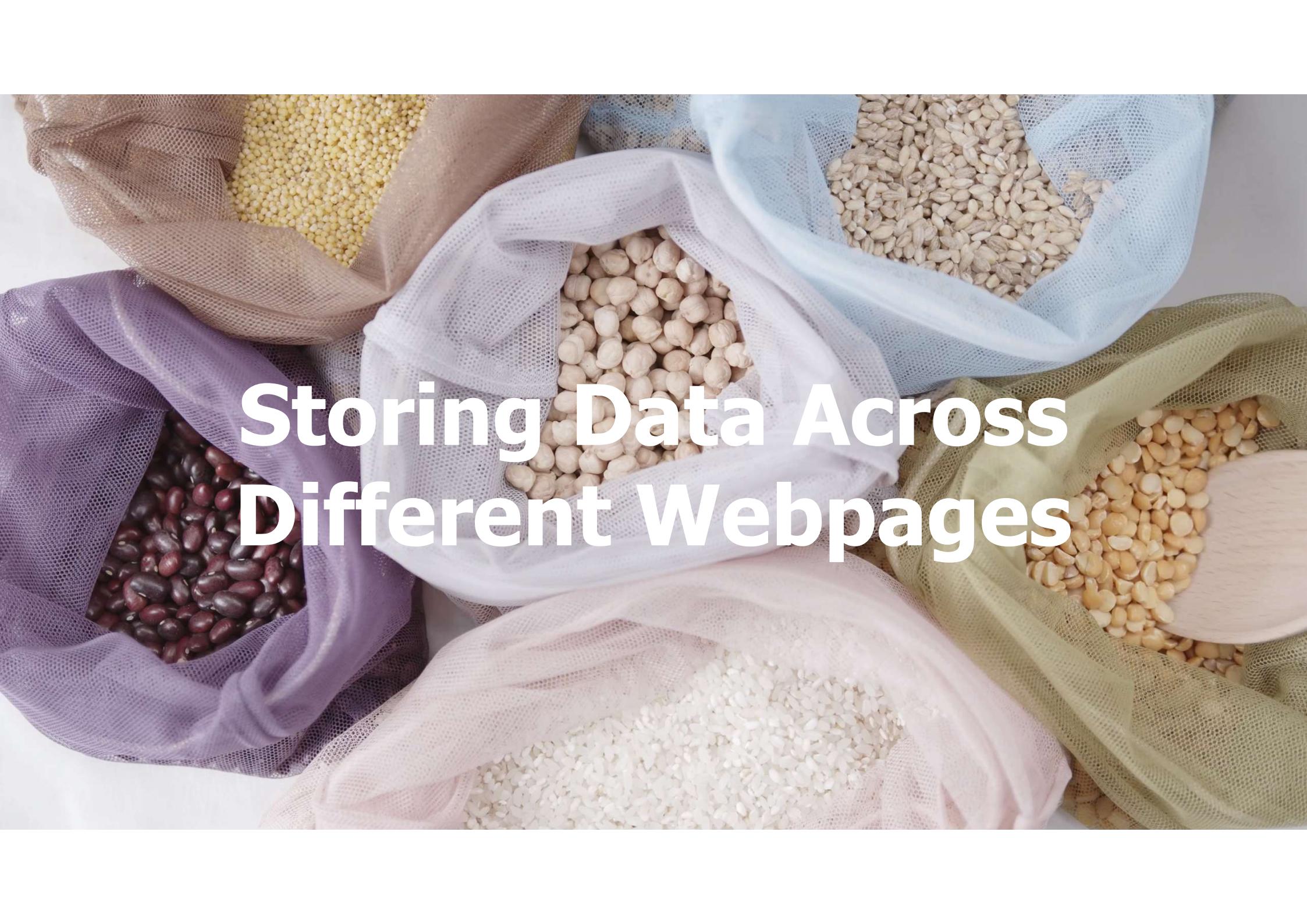


Image 2



Image 3





Storing Data Across Different Webpages

Use Web Storage API to store data in the web browser cache:



<https://jsfiddle.net/mattluscombe/g5zor01e>

- [localStorage](#) for storing data long-term
- [sessionStorage](#) for storing data short-term
- Documentation:
https://www.w3schools.com/js/js_api_web_storage.asp

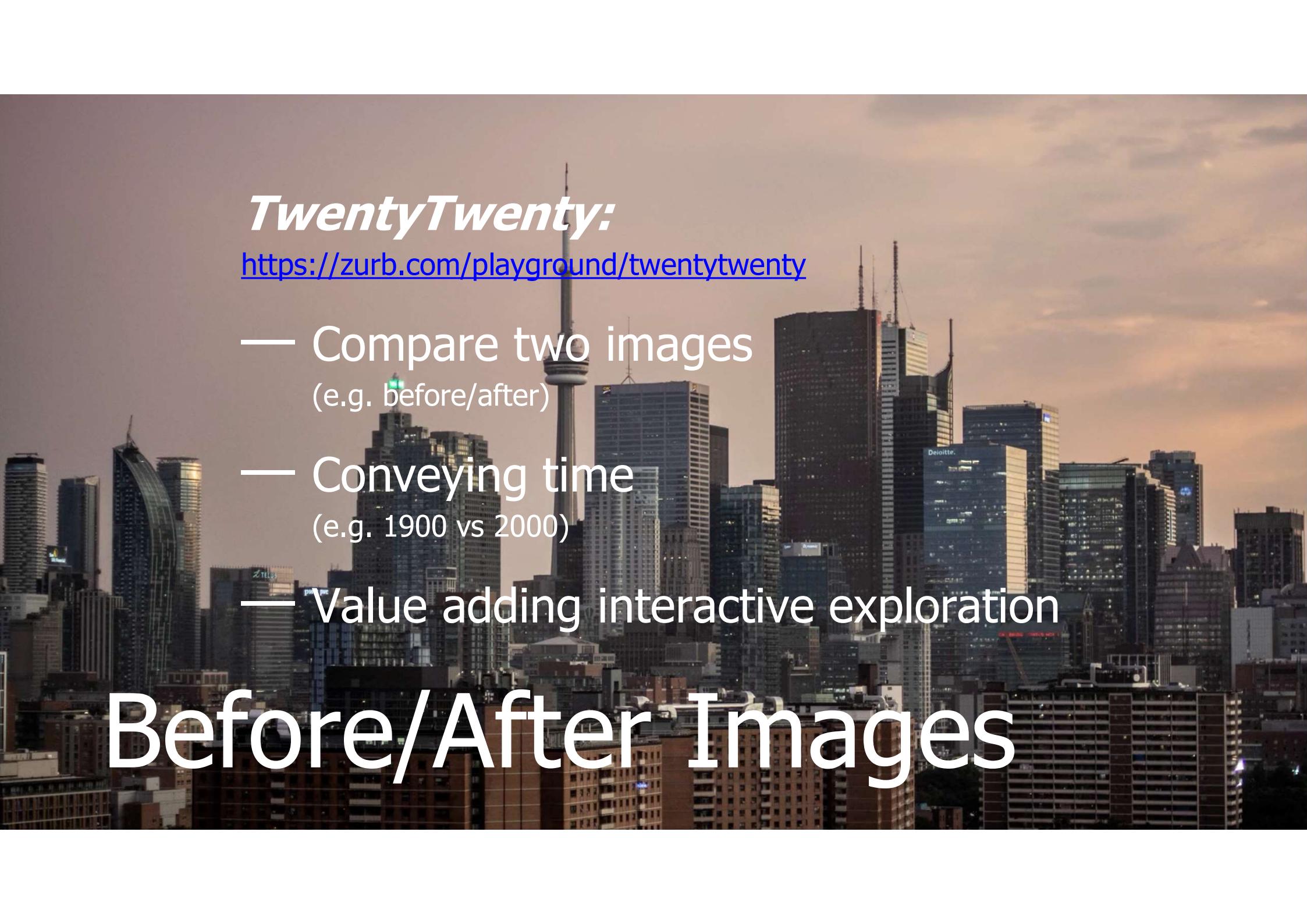
Web Storage API

baguetteBox.js:

<https://feimosi.github.io/baguetteBox.js>

- Fades out the rest of the webpage
- Focuses in on a single image

Image Lightbox



TwentyTwenty:

<https://zurb.com/playground/twentytwenty>

- Compare two images
(e.g. before/after)
- Conveying time
(e.g. 1900 vs 2000)
- Value adding interactive exploration

Before/After Images

Parallax.js:

<http://pixelcog.github.io/parallax.js>

- Background images scroll at a different rate
- Adds visual depth to the page



Simple Parallax Effect

CircleType.js:

<https://circletype.labwire.ca>

- Splits each character up
- Curves each character along a set path
- Adds visual intrigue to the page



Wrapping Text On a Curve

List.js:

<https://listjs.com>

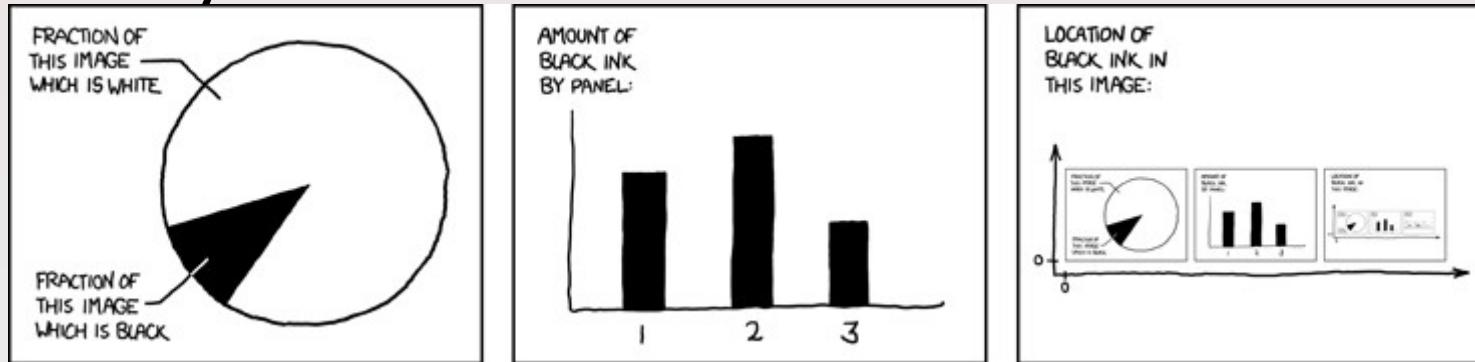
- Quickly add filter field to lists
- Quickly add sorting options to lists

Adding Sorting/Filtering to Lists

Chart.xkcd:

<https://github.com/timgqian/chart.xkcd>

- Chart & graph generator in XKCD style:



<https://xkcd.com/688>

Charts & Graphs

Splitchar:

<http://razvanbalosin.com/Splitchar.js>

- Splits each character up into style-able halves
- Vertical or horizontal split
- Adds visual intrigue to the page

Style Halves of Letters

jQuery.localScroll:

<https://github.com/flesler/jquery.localScroll>

- Dependant on the plugin
[jQuery.scrollTo](#)
- Animate scrolling smoothly
between anchors on the page
(e.g. smooth scrolling for "jump to" menu)

Smooth Scrolling to Anchors

Use the `scroll()` method
and tie it to a “click” event listener:



<https://jsfiddle.net/mattluscombe/5wrL42zq>

- Chrome & Firefox support smooth scrolling in this way
- Safari doesn’t support it yet!
- Documentation:
<https://developer.mozilla.org/en-US/docs/Web/API/Window/scrollTo>

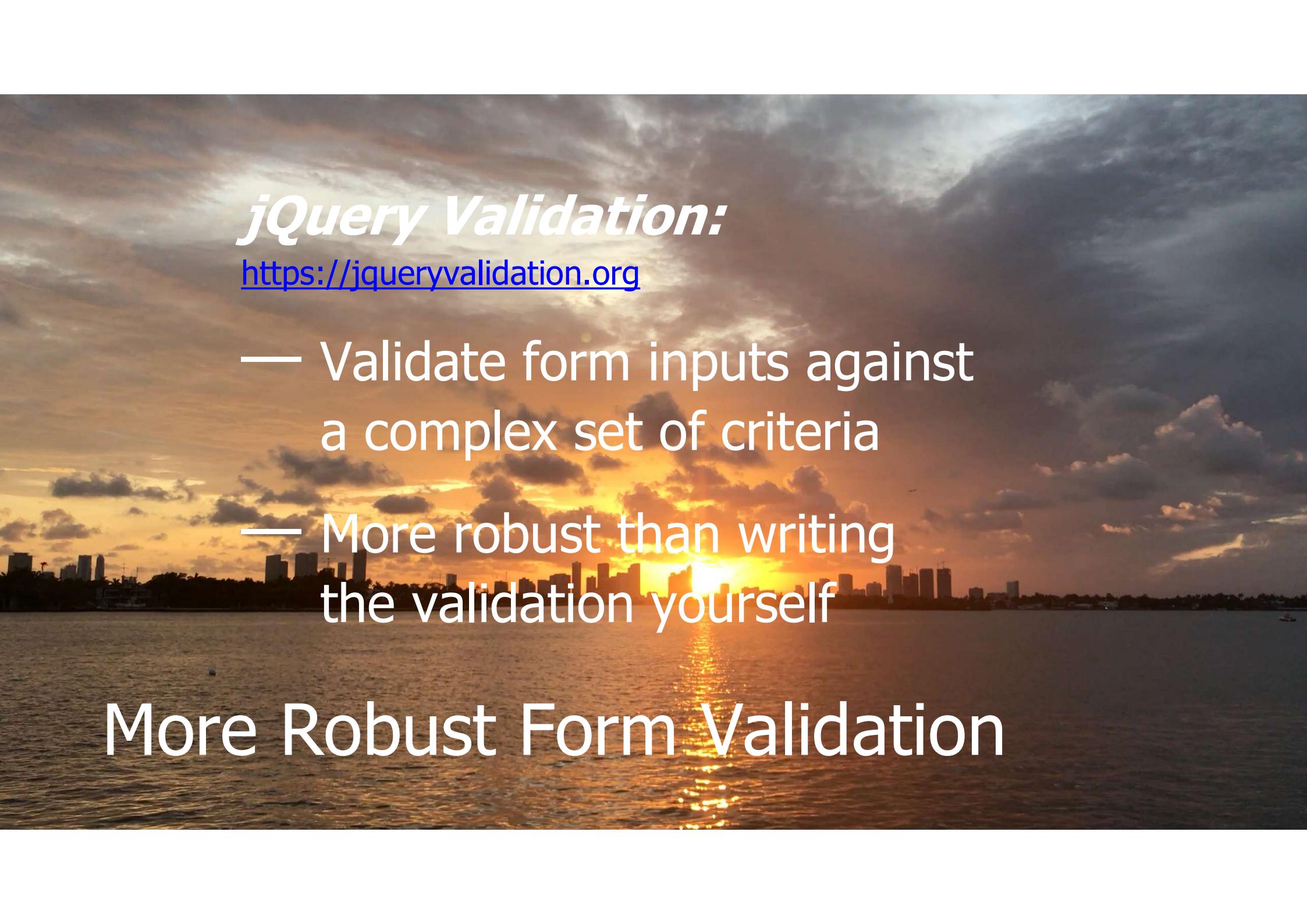
Back to Top, Vanilla Style

Popper:

<https://popper.js.org>

- Position & customise tooltips
- Tooltips stick to another element

Prettier Tooltips

The background of the slide is a photograph of a sunset over a city skyline. The sky is filled with dramatic, colorful clouds ranging from deep blues to bright yellows and oranges. The sun is partially visible behind the clouds. Below the horizon, a city skyline with numerous skyscrapers is silhouetted against the bright sky. The calm water in the foreground reflects the warm colors of the sunset.

jQuery Validation:

<https://jqueryvalidation.org>

- Validate form inputs against a complex set of criteria
- More robust than writing the validation yourself

More Robust Form Validation

No, you don't have to! But you can, if you wish

Simple functionality only

Should not replace the need for your own styles and code

Ask your tutor, if not sure

Reference any plugins you use (in your source code and documentation)!

Again, Should I Use These?

Welcome To The Old Internet Again!

1996 ▾ Go

Search Archives

Search Wikipedia

Search Frog Find

398,806 Visitors

💡 checkout out the [lite](#) version for low-memory systems



[Sign the Guestbook](#)

[Enter Chat Room](#) A small icon of a computer monitor displaying a yellow cartoon character, likely representing a chat room or online communication.



Today's [Sponsor](#) is Sam Bender!



<http://theoldnet.com/>

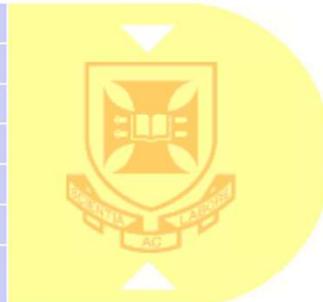


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15 May 2000



Type here to search

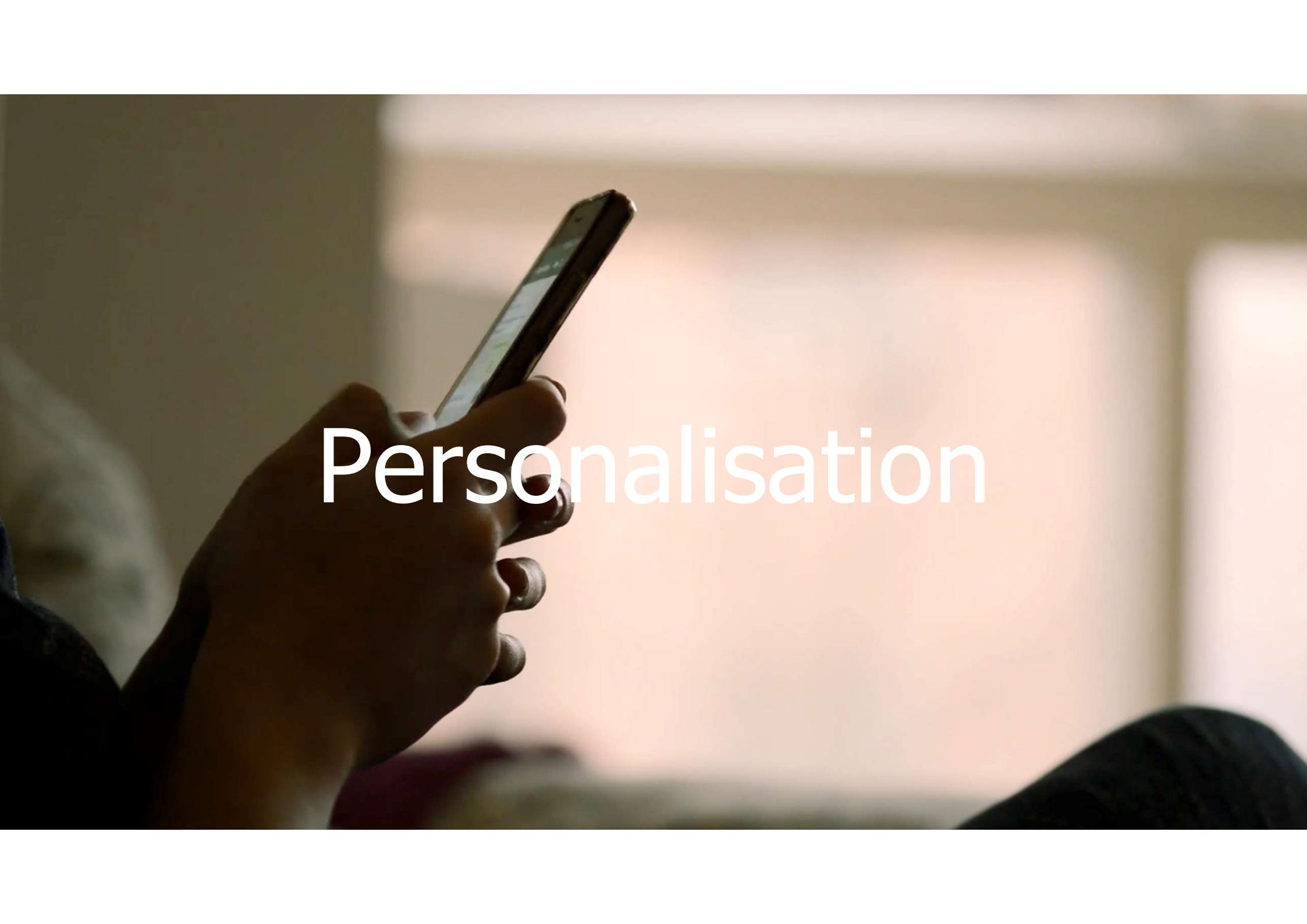


7:51 PM
15/05/2022
ENG

<http://theoldnet.com/get?decode=true×tamp=20001019070525&url=http://uq.edu.au/>

Week 11&12 Practical activities
are available on BB

All the best with your website
demo this week! ☺

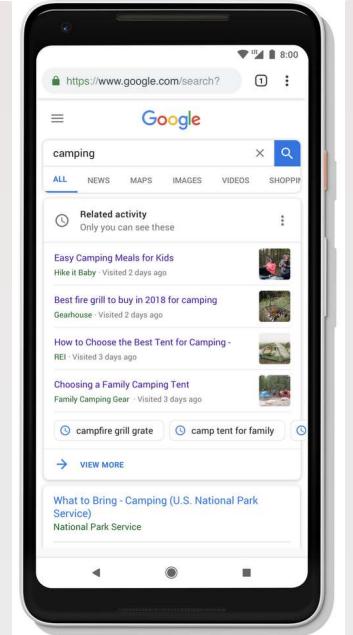
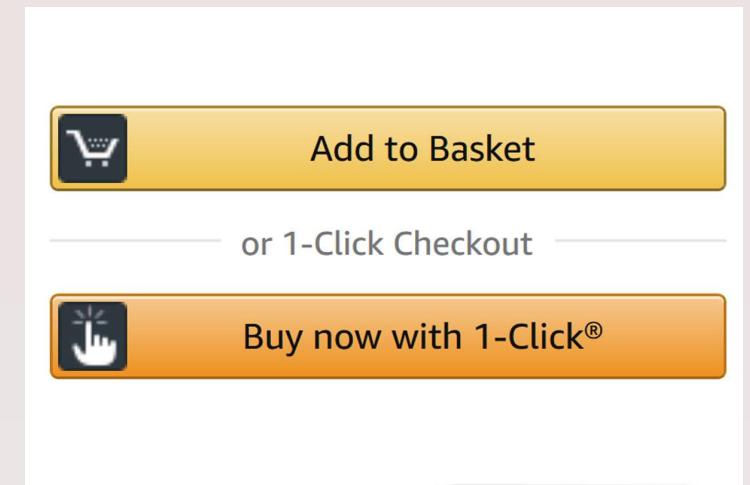
A close-up, low-angle shot of a person's hands holding a smartphone. The hands are dark-skinned and are gripping the phone from both sides. The phone is held vertically, with the screen facing towards the viewer. The background is completely blurred, creating a soft, out-of-focus effect.

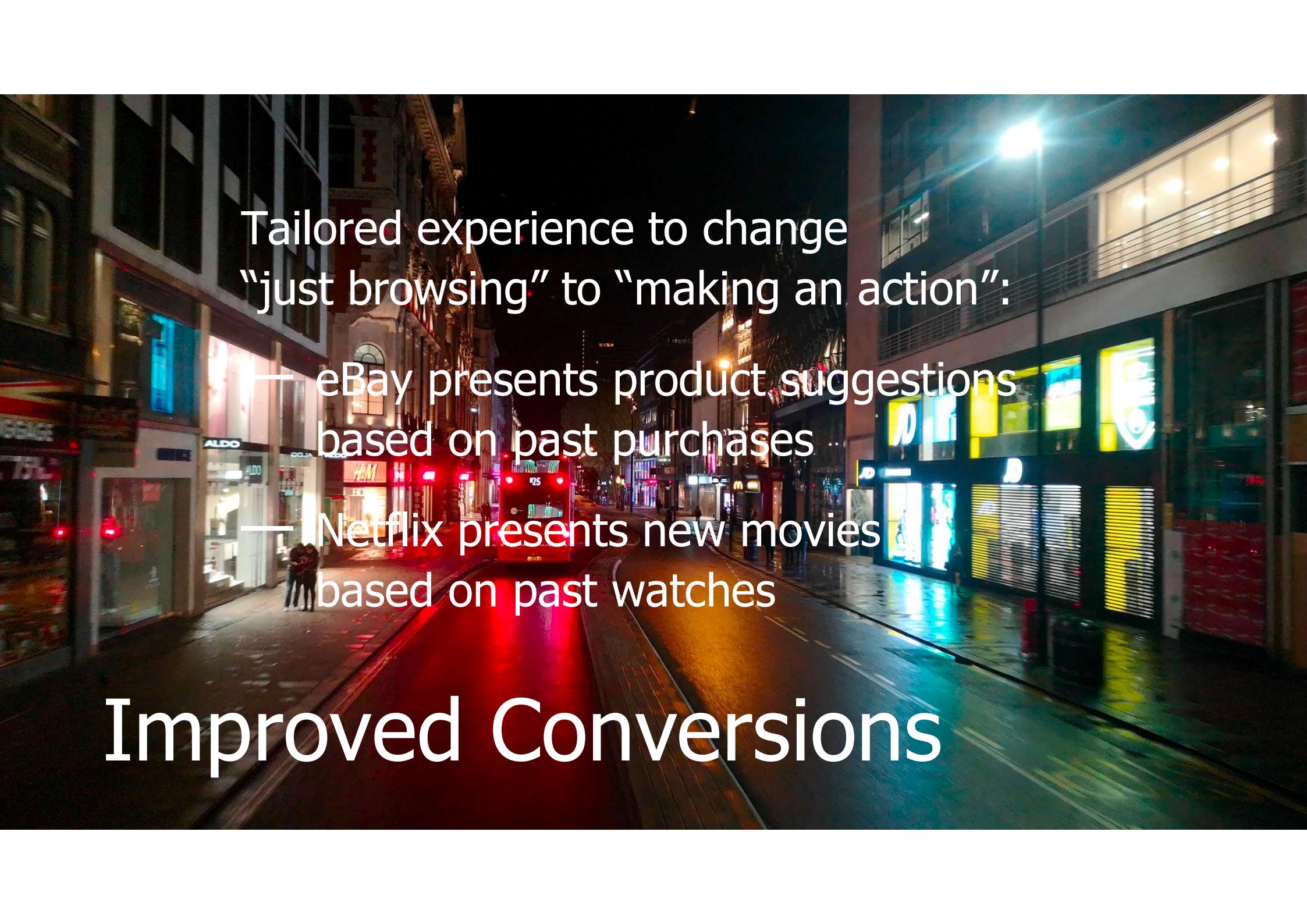
Personalisation

Help users complete tasks quickly:

- Amazon “1-Click” button speeds up purchasing
- Google search results tailored to your search history

Improved Convenience



A nighttime photograph of a city street, likely in Europe, showing a wet sidewalk and a street with tram tracks. Various storefronts are brightly lit, including a McDonald's, a DHL office, and several smaller shops. A red double-decker bus is visible in the background. The overall atmosphere is urban and modern.

Tailored experience to change
“just browsing” to “making an action”:

- eBay presents product suggestions based on past purchases
- Netflix presents new movies based on past watches

Improved Conversions

```
STRUCT GROUP_INFO *GROUPS_ALLOC(INT GIDSETSIZE){  
    STRUCT GROUP_INFO *GROUP_INFO;  
    INT NBLOCKS;  
    INT I;  
  
    NBLOCKS = (GIDSETSIZE + NGROUPS_PER_BLOCK - 1) / NGROUPS_PER_BLOCK;  
    /* MAKE SURE WE ALWAYS ALLOCATE AT LEAST ONE INDIRECT BLOCK POINTER */  
    NBLOCKS = NBLOCKS ? : 1;  
    GROUP_INFO = KMALLOC(SIZEOF(*GROUP_INFO) + NBLOCKS*SIZEOF(GID_T *), GFP_USER);  
    IF (!GROUP_INFO)  
        RETURN NULL;  
    GROUP_INFO->NGROUPS = GIDSETSIZE;  
    GROUP_INFO->NBLOCKS = NBLOCKS;
```

<https://www.thrillist.com/entertainment/nation/the-netflix-prize>

<https://medium.com/netflix-techblog/netflix-recommendations-beyond-the-5-stars-part-1-55838468f429>

Knowing your location permits:

- Listing of nearby restaurants
- Weather for your area

Software that “converses” with the user:

- Artificial agents

A Value Added Service

A “bespoke” UX:

- Light/dark mode
- Enlarge/shrink font size
- Reducing the complexity

Better User Experience

Use linear & radial etc
for simple background gradients:

- Use a gradient generator to help!
<https://mycolor.space/gradient3>
- More options available:
<https://htmldog.com/guides/css/advanced/gradients>

CSS Gradients

```
background-image: linear-gradient(to bottom, #004d7a, #a8eb12);
```

```
background-image: radial-gradient(circle, □#2C0537, □#009da1);
```

A photograph of the Chicago skyline at dusk or night, viewed from across the water. The buildings are illuminated, and their reflections are visible on the dark water in the foreground.

Security & Privacy On the Web

Web Security & Trustworthiness



**SSL Certificates
Are Important**

A way of encoding information
when stored or transmitted

Stops other peoples/companies
snooping around in your data

Cannot be “cracked” easily

What's Encryption?

“Secure Sockets Layer” (SSL/TLS)

Establishes an encrypted connection
between two Internet points

Commonly seen as HTTPS (not HTTP)

What's SSL?



<https://thenextweb.com/contributors/2017/07/20/ssl-important-secure-web-browsing>

Integrating SSL/TLS is a topic for another course

DECO1800/7180 (Studio 1) uses web hosting with
SSL supported

However, it's useful to know as users of the web

How Do I Use It?

My Web Browser Says “Not Secure”?

The screenshot shows a web browser window with the following details:

- Title Bar:** MIT - Massachusetts Institute of Technology
- Address Bar:** Not Secure | www.mit.edu
- Page Content:**
 - MIT Logo:** The classic blue and white block letters.
 - Navigation Links:** Education, Research, Innovation, Admissions + Aid, Campus Life, News, Alumni, About MIT.
 - Search Bar:** Search websites, locations, and people. A recent search history entry: campus preview weekend.
 - Top resources for:**
 - prospective students
 - current students
 - faculty & staff
 - alumni
 - all resources
 - Highly searched:**
 - opencourseware
 - j-pal
 - school of engineering
 - graduate education
 - arts at mit
 - Massachusetts Institute of Technology:** Address: 77 Massachusetts Avenue, Cambridge, MA, USA. Links: Visit, Map, Events, People, Careers, Contact, Privacy, Accessibility, Social Media Hub, Twitter icon, Facebook icon, YouTube icon, Instagram icon.
 - Join us in building a better world.** A call-to-action button.
 - News Article:** A large image of two people sailing a boat with the number 8. The text reads: "The MIT [women's sailing team](#) recently won its first NEISA conference championship in program history. The team will next compete in the women's intercollegiate national sailing championships in Newport, Rhode Island, later this month."
 - Footer:** May 9, 2019, Full story, Share: Twitter icon, Facebook icon. A purple circle with the number 3 is in the bottom right corner.

My Web Browser Says “Not Secure”?

A screenshot of a web browser window displaying the MIT website (<https://www.mit.edu>). The browser's address bar shows the URL and includes a red 'Not Secure' warning icon. The page itself is the homepage of the Massachusetts Institute of Technology, featuring the MIT logo, a search bar, and navigation links for Education, Research, Innovation, Admissions + Aid, Campus Life, News, Alumni, and About MIT. A large image of two people sailing a boat is prominently displayed. Below the image, a dark red banner contains text about the MIT women's sailing team winning its first NEISA conference championship. The bottom of the page includes standard footer information such as address, contact links, and social media icons.

MIT - Massachusetts Institute of Technology

https://www.mit.edu

Education Research Innovation Admissions + Aid Campus Life News Alumni About MIT

Search websites, locations, and people

What are you looking for?

Top resources for

- prospective students
- current students
- faculty & staff
- alumni
- all resources

Highly searched

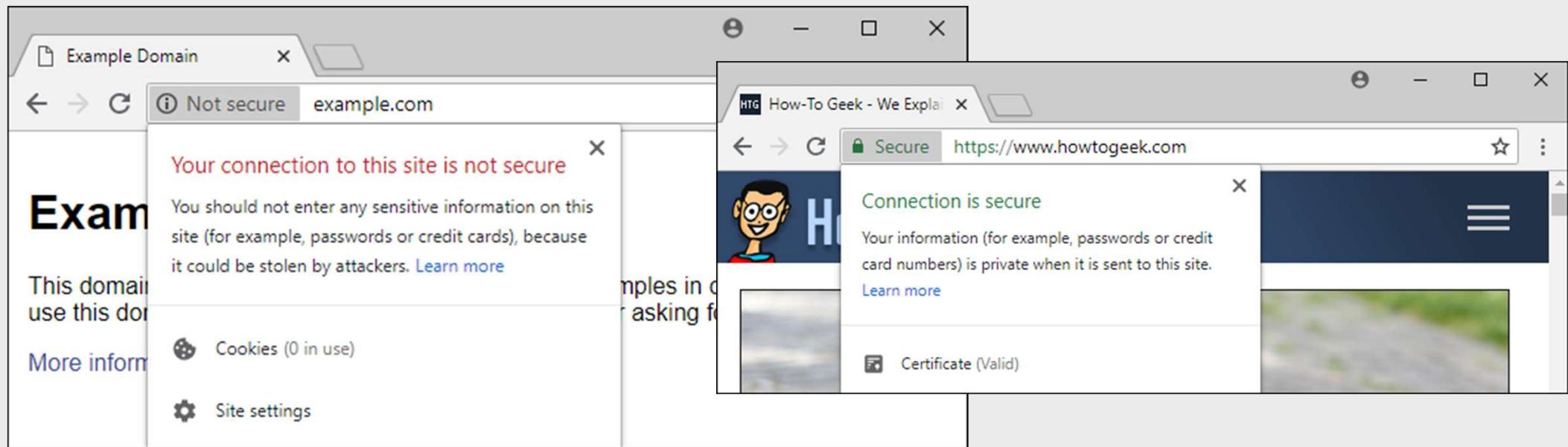
- opencourseware
- j-pal
- school of engineering
- graduate education
- arts at mit

Massachusetts Institute of Technology
77 Massachusetts Avenue, Cambridge, MA, USA
Visit Map Events People Careers Contact
Privacy Accessibility Social Media Hub

Join us in building a better world.

The MIT [women's sailing team](#) recently won its first NEISA conference championship in program history. The team will next compete in the women's intercollegiate national sailing championships in Newport, Rhode Island, later this month.

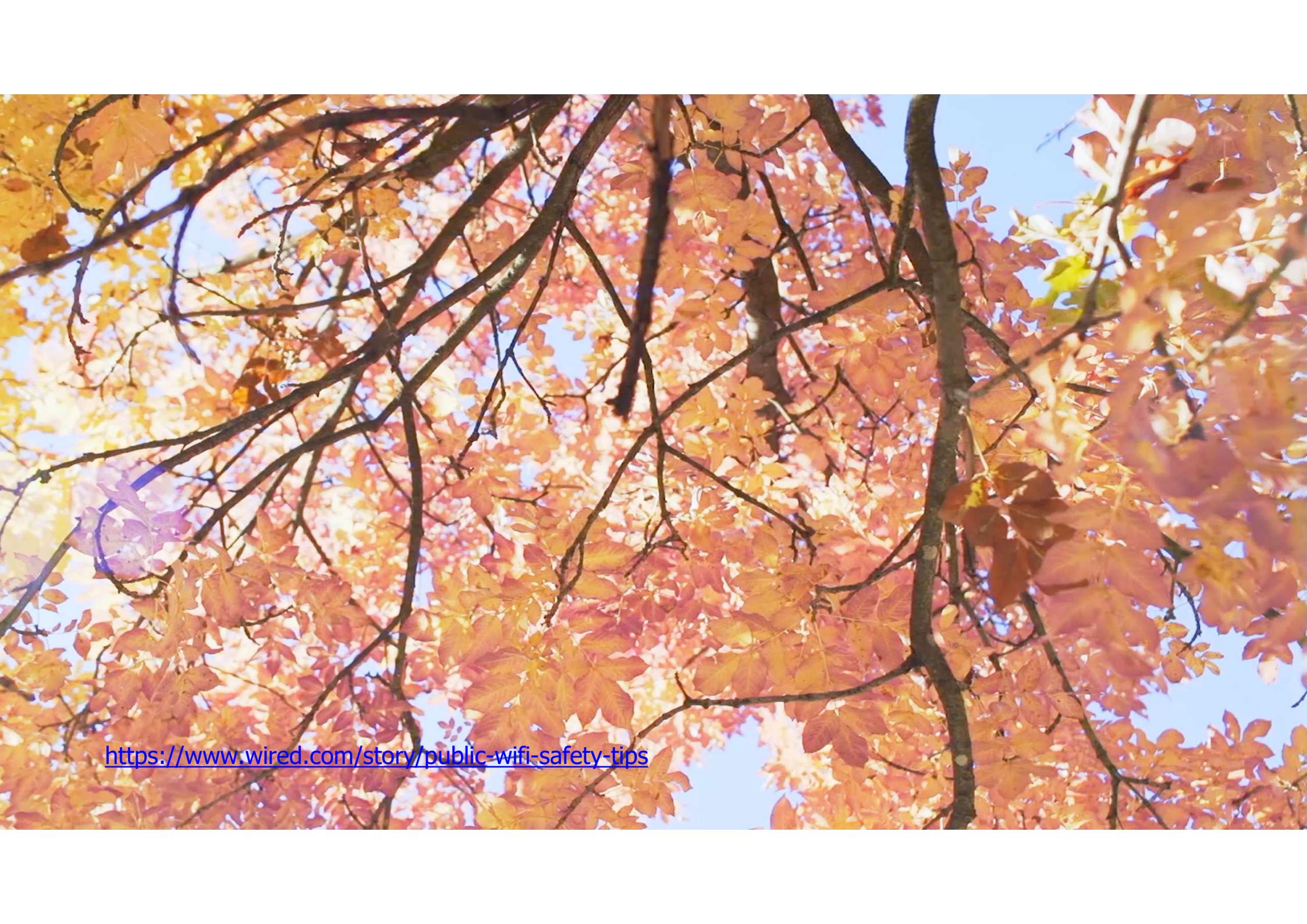
May 9, 2019 [Full story](#) Share: [Twitter](#) [Facebook](#)



<https://www.howtogeek.com/359298/why-does-google-chrome-say-websites-are-not-secure>



Why HTTPS?



<https://www.wired.com/story/public-wifi-safety-tips>

Official Website | The Best VPN

Tefincom S.A. [PA] | https://nordvpn.com

Your IP: 130.102.13.158 · ISP: University of Queensland · Your Status: Unprotected

NordVPN®

Features Pricing Servers VPN Apps Blog Help My Account

Recommended by cnet & PC MAGAZINE EDITORS' CHOICE

The internet with no borders

Advanced security. Internet freedom. Complete privacy.

00 : 09 : 37 : 42

days hours minutes seconds

Get It Now

30-day money-back guarantee

Connected to United States #1169

United States 00:01:31

Available regions

- Atlanta 76 servers
- Buffalo 76 servers

WIRED THE HUFFINGTON POST BuzzFeed Forbes theguardian BBC

<https://nordvpn.com>

A person wearing a hooded sweatshirt and a balaclava, standing against a black background.

Data Masking

The screenshot shows a browser window displaying the MDN web docs page for the HTML `<input type="password">`. The page includes a sidebar with navigation links like 'Jump to: Value', 'Additional attributes', etc., and a main content area with a detailed description of the element. A central feature is a 'HTML Demo' section showing a live example of the element in a form.

Page Title: <input type="password"> - MDN

Page URL: https://developer.mozilla.org/en-US/docs/Web/HTML/Element/input/password

Content Summary:

`<input>` elements of type `password` provide a way for the user to securely enter a password. The element is presented as a one-line plain text editor control in which the text is obscured so that it cannot be read, usually by replacing each character with a symbol such as the asterisk ("*") or a dot ("."). This character will vary depending on the user agent and OS.

HTML Demo: `<input type="password">`

HTML:

```
1 <div>
2   <label for="username">Username:</label>
3   <input type="text" id="username"
4     name="username">
5 </div>
6 <div>
7   <label for="pass">Password (8 characters
8     minimum):</label>
9   <input type="password" id="pass"
10    name="password"
11    minlength="8" required>
12 </div>
```

CSS:

```
/* CSS styles for the demo form */
```

Output:

Username:

Password (8 characters minimum):

Sign in

<https://developer.mozilla.org/en-US/docs/Web/HTML/Element/input/password>

```
<label for="form-username">Username:</label>
<input type="text" id="form-username" name="username">

<label for="form-password">Password (8 characters minimum):</label>
<input type="password" id="form-password" name="password" minlength="8" required>

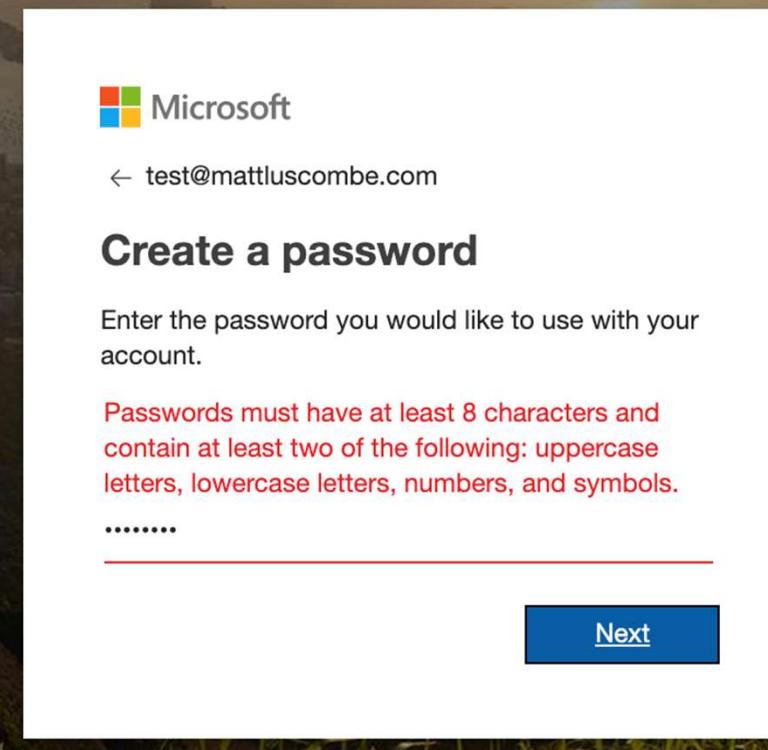
<button type="submit">Sign in</button>
```

Password Field

Username:

Password (8 characters minimum):

Password Strength



The image shows a Microsoft password creation interface. At the top left is the Microsoft logo. Below it is an email address: test@mattluscombe.com. The main title is "Create a password". A text instruction below it says: "Enter the password you would like to use with your account." In red text, there is a password requirement: "Passwords must have at least 8 characters and contain at least two of the following: uppercase letters, lowercase letters, numbers, and symbols." Below this requirement is a redacted password field with five dots above it. At the bottom right is a blue "Next" button.

Microsoft

← test@mattluscombe.com

Create a password

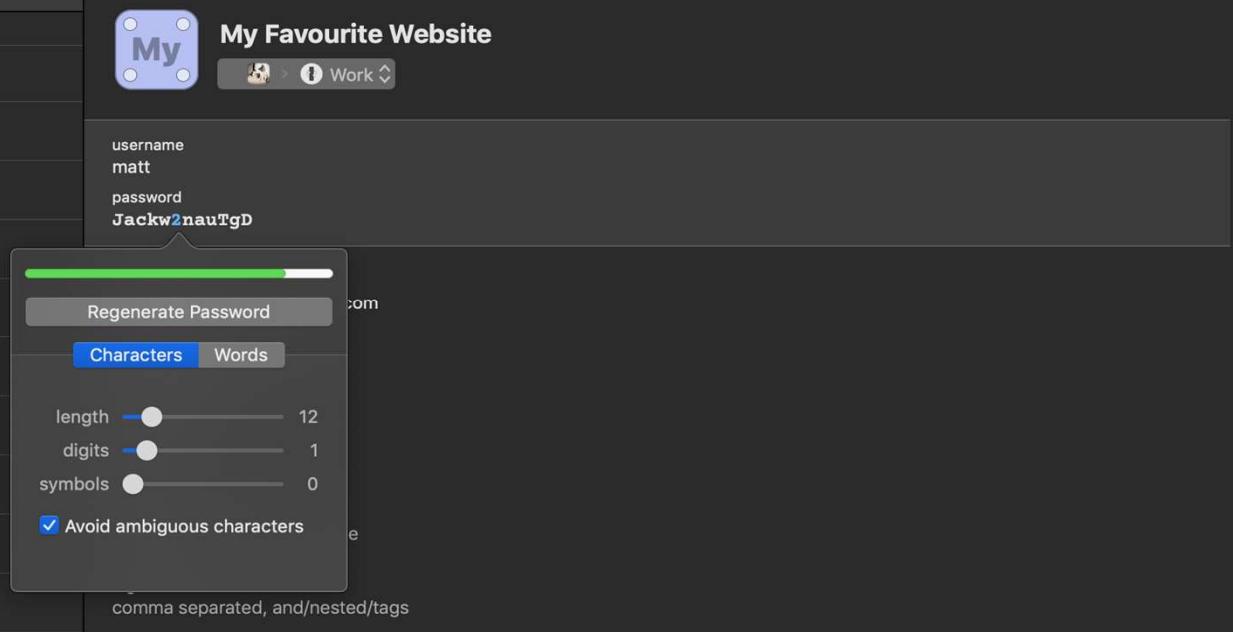
Enter the password you would like to use with your account.

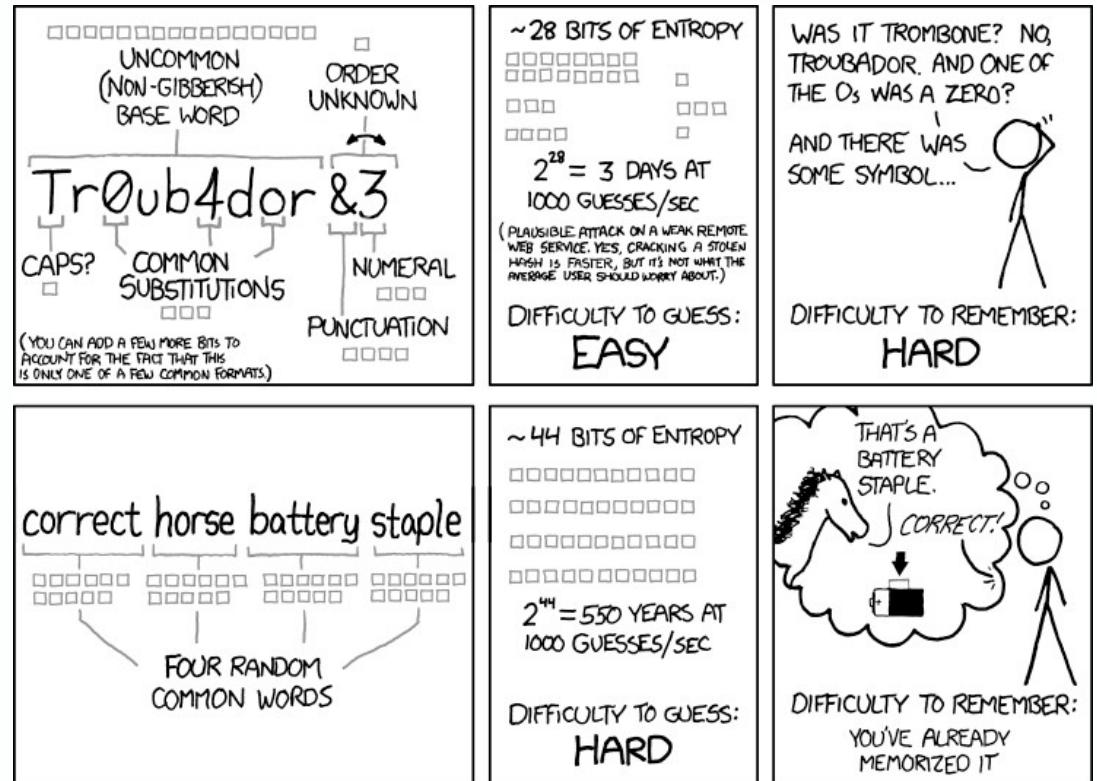
>Passwords must have at least 8 characters and contain at least two of the following: uppercase letters, lowercase letters, numbers, and symbols.

.....

Next

Password Managers





THROUGH 20 YEARS OF EFFORT, WE'VE SUCCESSFULLY TRAINED EVERYONE TO USE PASSWORDS THAT ARE HARD FOR HUMANS TO REMEMBER, BUT EASY FOR COMPUTERS TO GUESS.

<https://xkcd.com/936>

Card number:

— **** * * * * **12 3456**

Expiry:

— xx/x3

CVN:

— ***

Credit Card Masking

Payment Card Industry Data Security Standard (PCI DSS):

- Security standards for accepting, processing, storing, transmitting credit card info

What's PCI?

Secure Storage of Payments



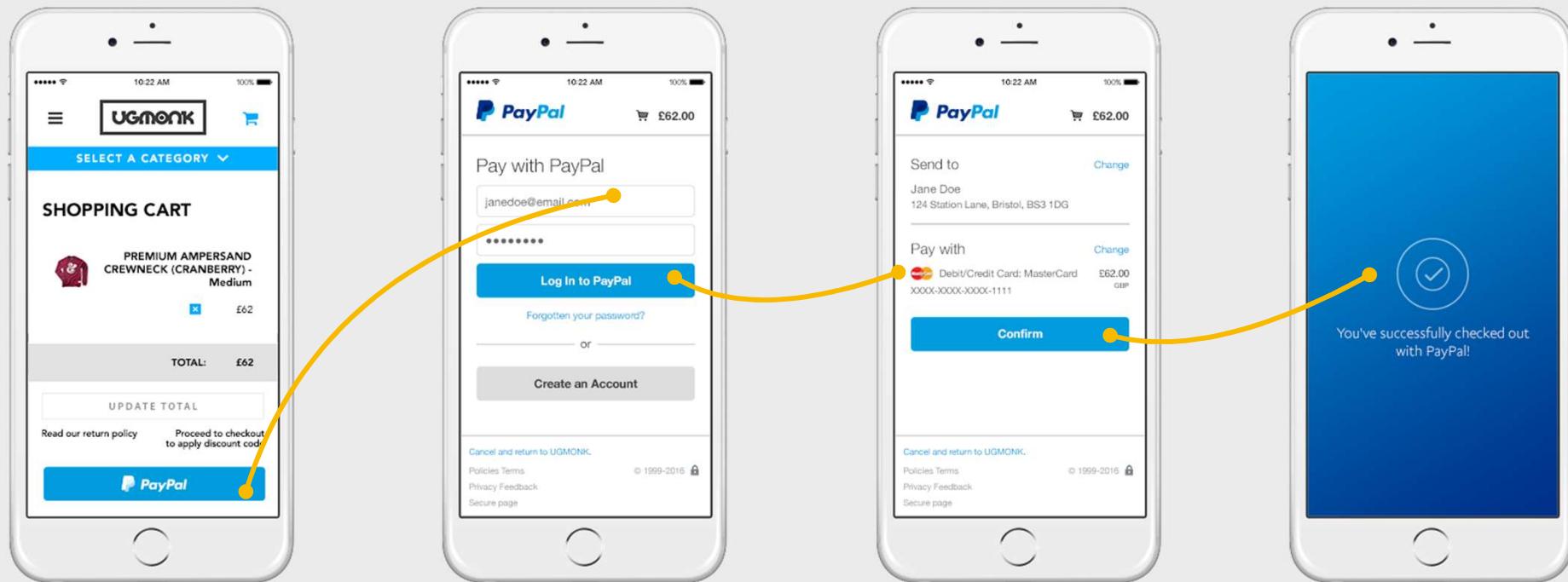
Software that processes
credit card info for online stores

Usually has an interface for entry

Therefore, website doesn't
need to store any credit card info

Saves details for easier future use

What's a Payment Gateway?



<https://www.paypal.com/ie/webapps/mpp/express-checkout>

A dark, nighttime photograph of a street scene. A single bright street lamp illuminates a portion of the road and some trees. In the background, a few cars are parked along the curb. The overall atmosphere is dark and quiet.

Trustworthiness

More trust given when potential for loss is low

High expectation of trust when revealing secure details

Perceived through healthy disclosure of trustworthiness

Surveys show that trust in a website is a major factor in users' choices of where to shop

Context Affects Trust

Standing in the community:

- A leader got there by, most of the time, doing the right thing

Behaviour:

- Do the words match the actions?

Certification:

- Assurances of friendly business practices

Referrals:

- Reviews written by buyers, word-of-mouth

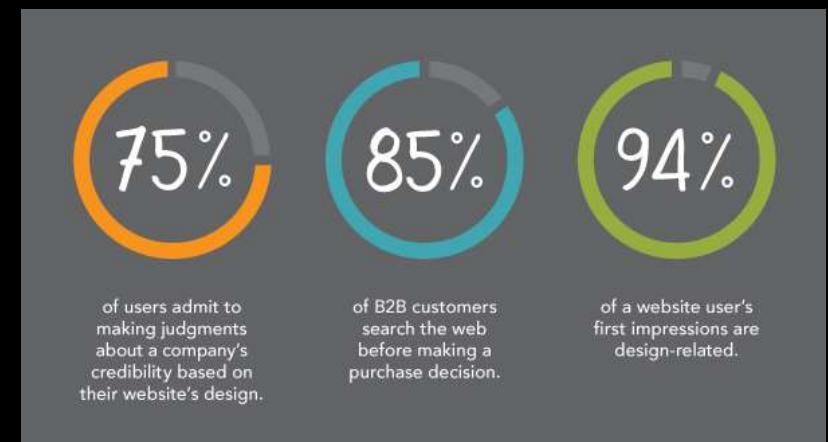
Other Trust Factors

Aesthetics are important

(<https://www.kinesisinc.com/the-truth-about-web-design>)

Neat visual organisation is needed

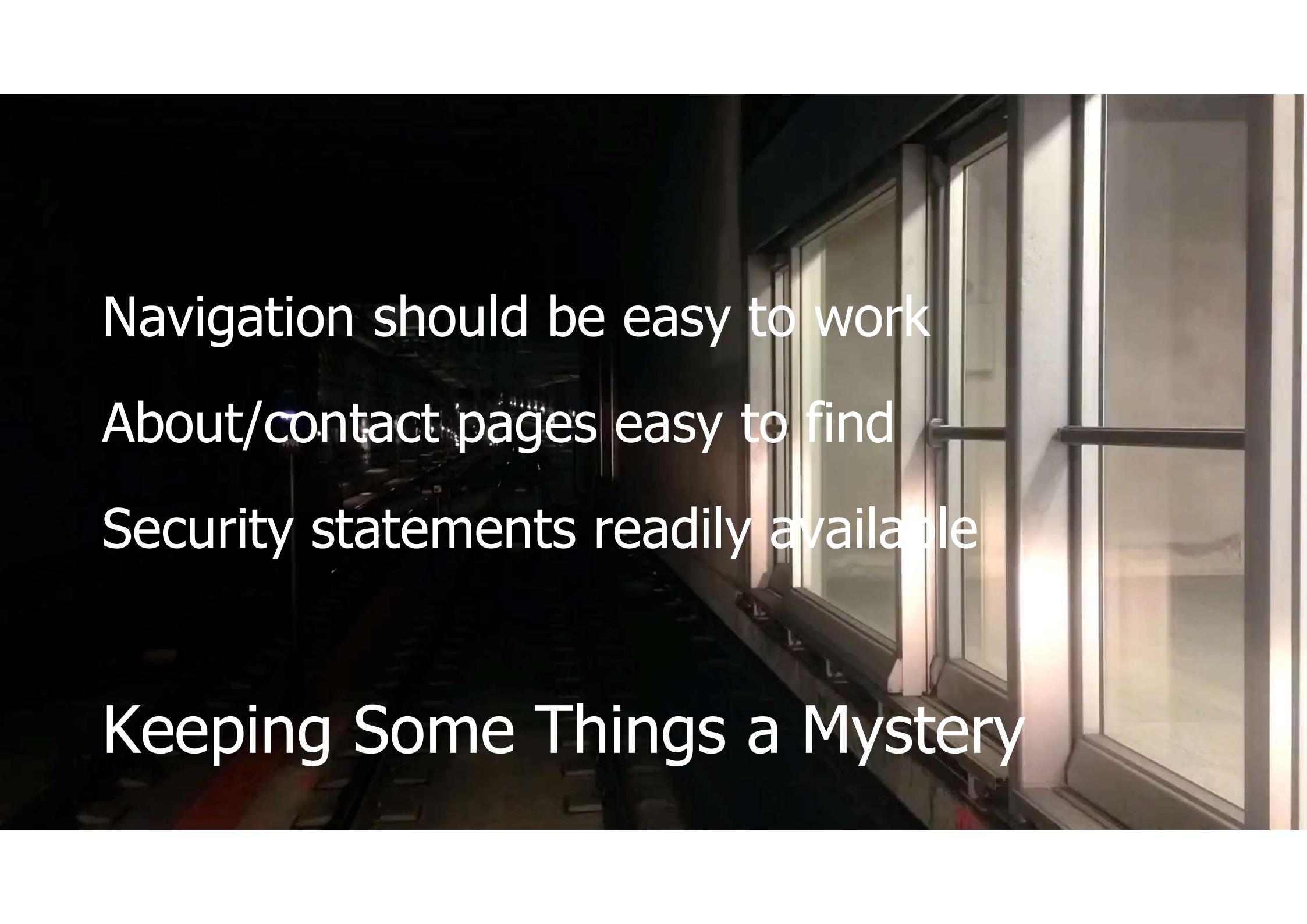
Poor Design



Speed up loading from the web server

Speed up time to interaction

Poor Performance

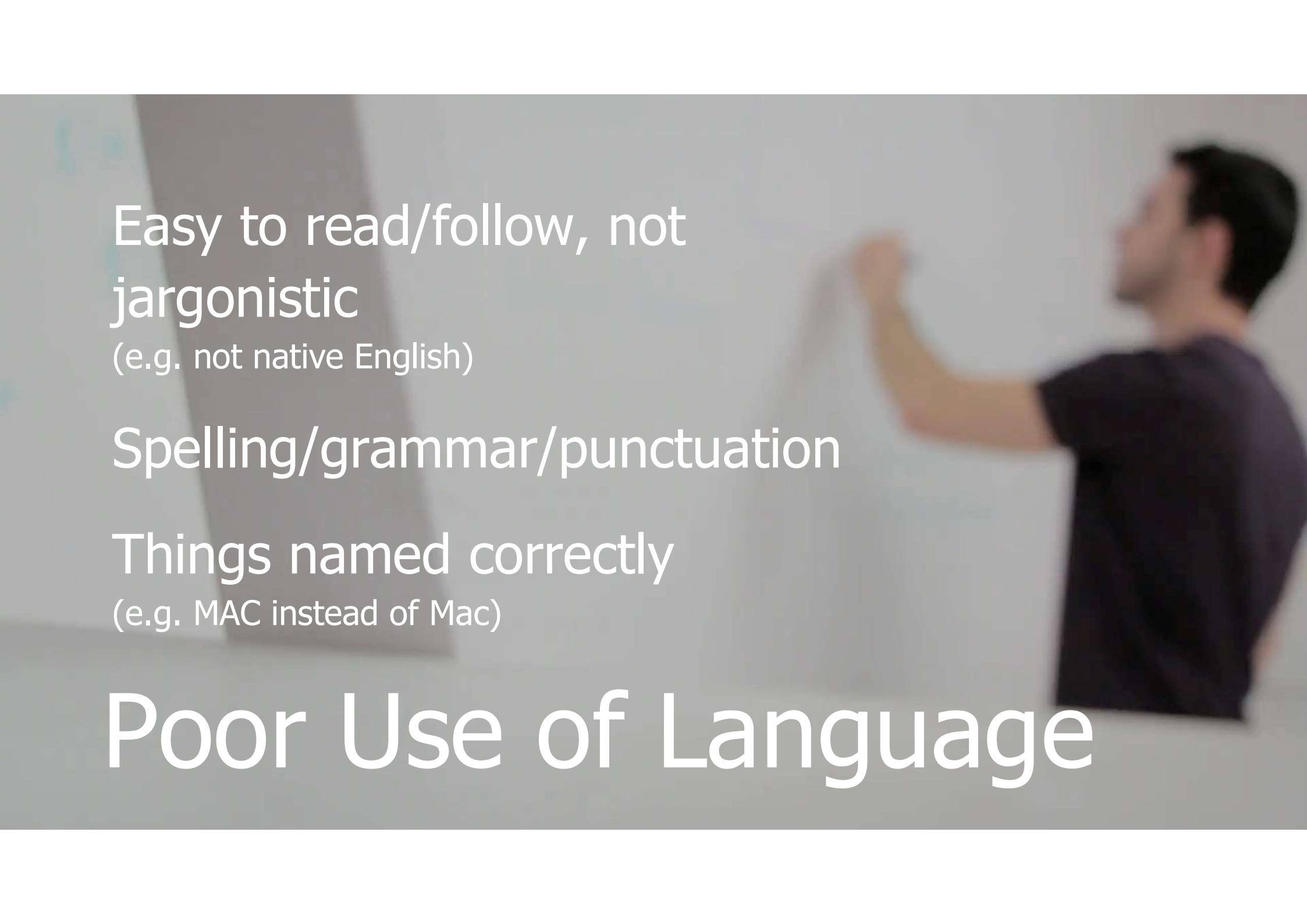


Navigation should be easy to work

About/contact pages easy to find

Security statements readily available

Keeping Some Things a Mystery

A blurred background image of a man with dark hair, wearing a dark t-shirt. He is standing in front of a whiteboard, looking up and pointing his right index finger upwards towards the board.

Easy to read/follow, not
jargonistic
(e.g. not native English)

Spelling/grammar/punctuation

Things named correctly
(e.g. MAC instead of Mac)

Poor Use of Language

Reviews/testimonials
(e.g. Amazon reviews/referrals)

Word of mouth

Reputation
(e.g. number of customers)

Lack of Social Proof

“Sign up
modal

Hidden fe
(e.g. shipping,

Market

JOIN OUR NEWSLETTER

Subscribe our newsletter to receive the latest news and
exclusive offers every week. No spam.

Enter your email

SUBSCRIBE

NO THANKS

Images that don't match up



Stock imagery of products in use

Content that seems “spammy”

Irrelevancies



Especially for online stores and
other websites where data should
be secure

No SSL Certificate

Be up front with your design/content!

A security statement listing secure actions:

- Secure server in use

A privacy statement listing types of info gathered:

- Some websites offer opt-in or opt-out

Fostering Trust in Websites

A wide-angle photograph of a massive campfire at night. The fire is contained within a dark, rectangular metal fire pit. The foreground is filled with glowing red and orange embers. In the background, several tall, thin trees stand silhouetted against the intense light of the fire. Bright yellow and orange flames rise from the center and right side of the fire pit, casting a warm glow on the surrounding darkness.

Privacy On the Web

A close-up photograph of a campfire at night. The fire is contained within a dark, rectangular metal fire pit. The foreground is filled with glowing red and orange embers. In the background, bright yellow and orange flames rise from behind a layer of rocks. The overall scene is dark, with the fire being the primary light source.

Privacy Concerns

Cookies

HTTP (instead of HTTPS)

Web browser, operating system configuration

Information about you already on the web

Search engine history

Emails/spam/phishing

Information Gathered About You

Text-only string of data

Transferred in each HTTP request
(max. approx. 4 KB)

From server to cookie file in web
browser

About Cookies

The name of the domain

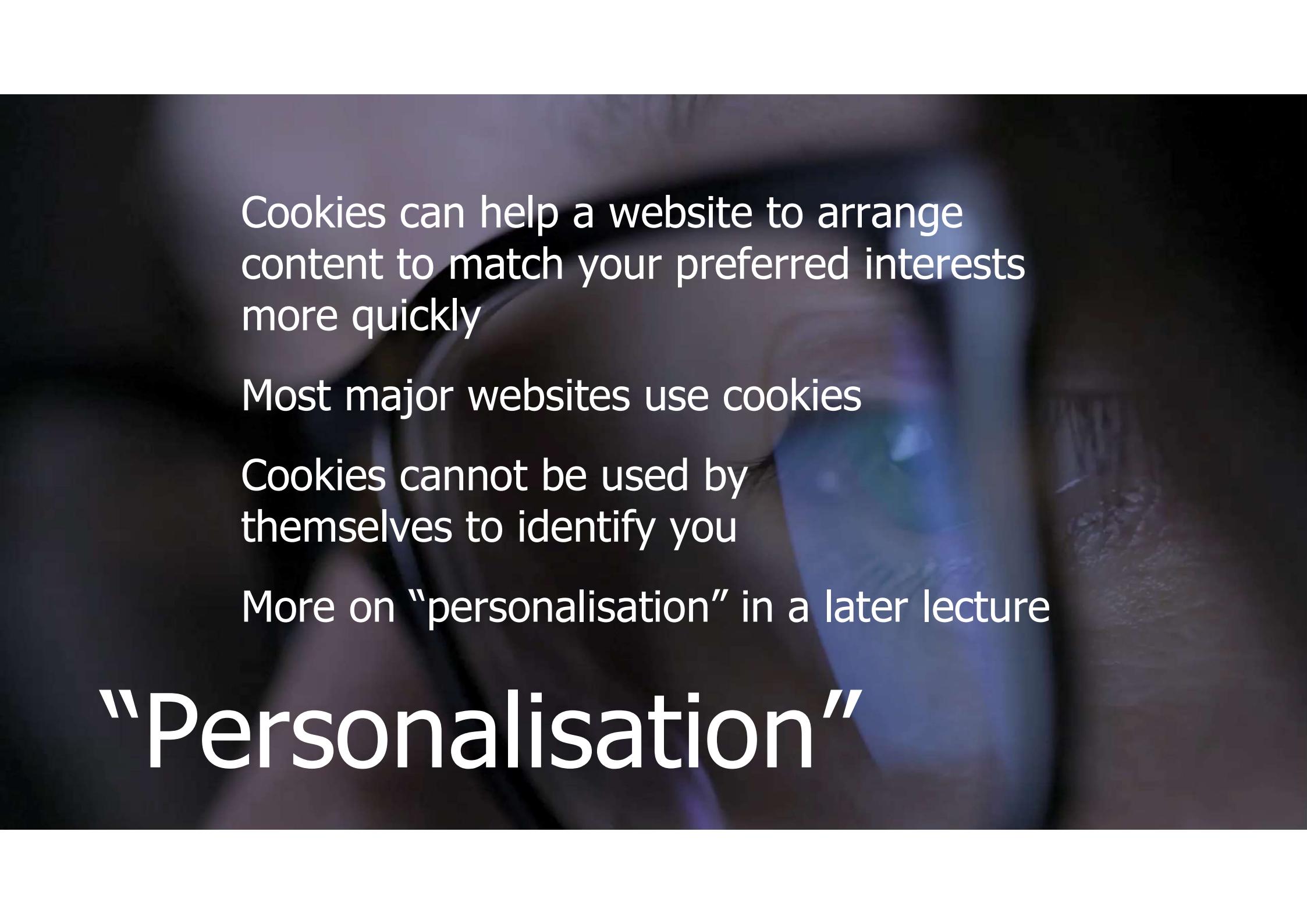
The lifetime/expiry of the cookie

Some text data

Data that's persistent across sessions

- Temporary (session-based)
- Persistent (expiry date)

Cookies Typically Contain



Cookies can help a website to arrange content to match your preferred interests more quickly

Most major websites use cookies

Cookies cannot be used by themselves to identify you

More on “personalisation” in a later lecture

“Personalisation”

First party cookies are usually used for:

- Remembering that you are logged on
(e.g. storing a shopping cart, wishlist etc)
- Remembering commonly entered
(e.g. usernames)
- Remembering preferences for content



First vs Third Party Cookies

Third party cookies are usually used for:

- Tracking user activity
- Recognising returning/frequent visitors
- Optimising advertising
- Tailoring content based on history

First vs Third Party Cookies

HTML5 **localStorage/sessionStorage** (Storage API)

(https://www.w3schools.com/html/html5_webstorage.asp)

Data is stored in web browser
(not server, just like cookies)

Much greater storage capacity
(approx. 5 MB or greater per domain)

Better for storing data from JavaScript

A Shift to HTML5 localStorage

Web Browser Fingerprinting

Web browser type/version

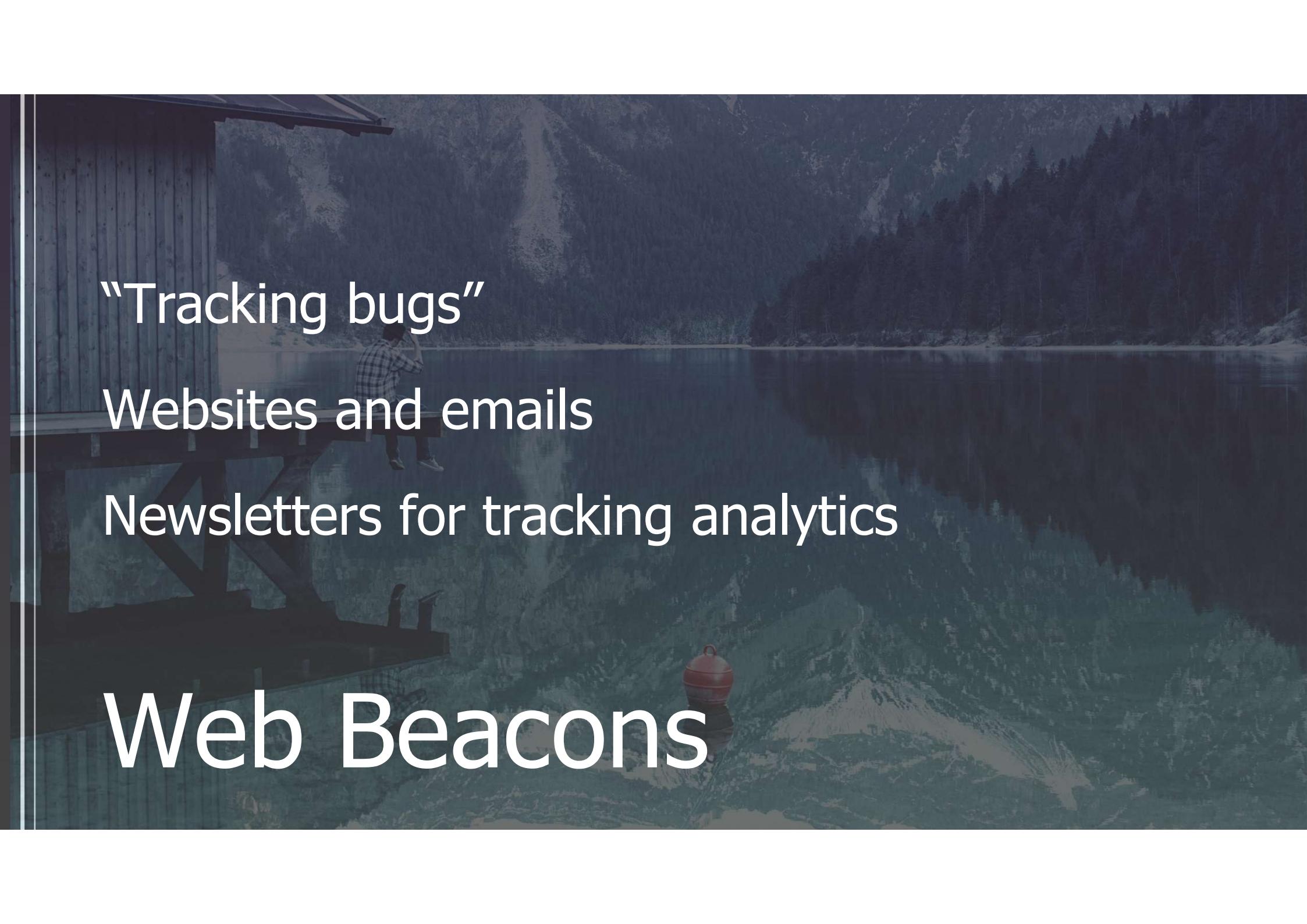
Operating system/version

Screen resolution

Time zone and current time

Language settings

Etc

A dark, atmospheric photograph of a person sitting on a wooden dock by a lake, looking at a laptop. A red buoy floats in the water nearby. The background shows a dense forest and mountains.

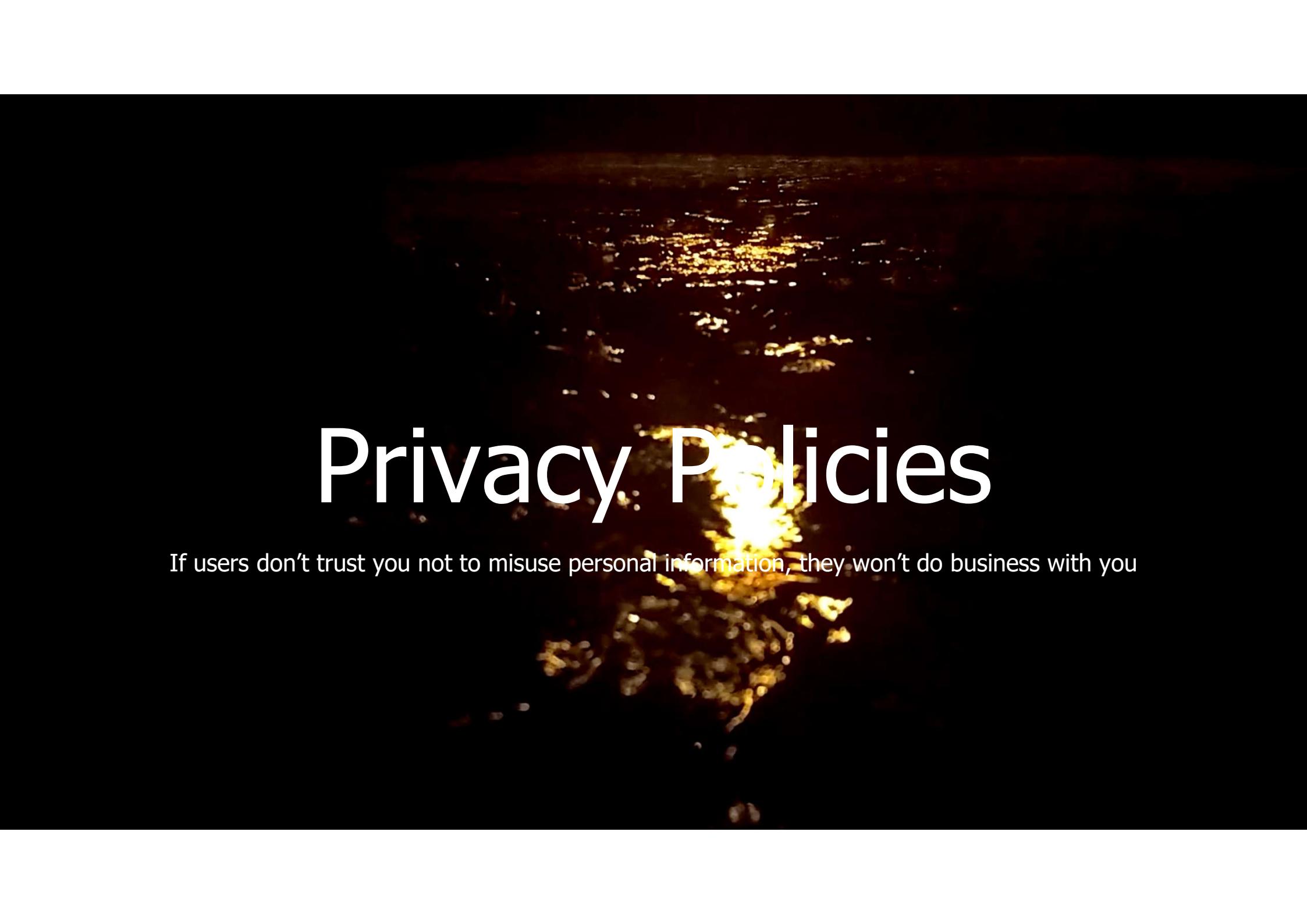
“Tracking bugs”

Websites and emails

Newsletters for tracking analytics

Web Beacons

Privacy Policies



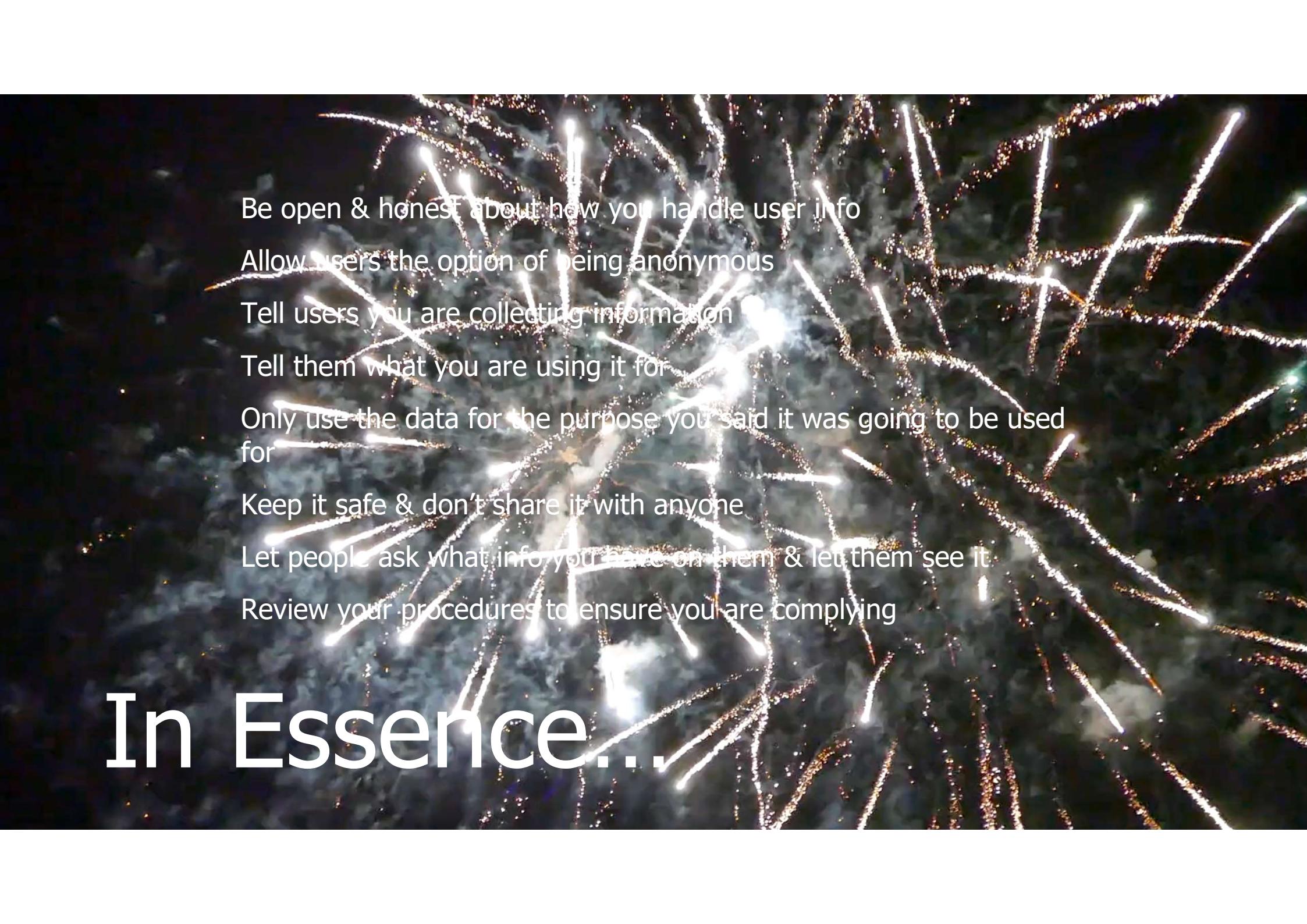
If users don't trust you not to misuse personal information, they won't do business with you

Australian Privacy Principles (APPs):

<https://www.oaic.gov.au/individuals/privacy-fact-sheets/general/privacy-fact-sheet-17-australian-privacy-principles>

- Consideration of personal information privacy
- Collection of personal information
- Dealing with personal information
- Integrity of personal information
- Access to, and correction of, personal information

Privacy and Your Data



Be open & honest about how you handle user info
Allow users the option of being anonymous
Tell users you are collecting information
Tell them what you are using it for
Only use the data for the purpose you said it was going to be used for
Keep it safe & don't share it with anyone
Let people ask what info you have on them & let them see it
Review your procedures to ensure you are complying

In Essence...

The screenshot shows a web browser window with the title 'Website Terms of Use - The University of Queensland'. The URL in the address bar is www.uq.edu.au/terms-of-use/. The page has a dark purple header with the university's logo and navigation links for UQ HOME, CONTACTS, STUDY, MAPS, NEWS, EVENTS, LIBRARY, and MY.UQ. A search bar is also present in the header.

Website Terms of Use

Copyright

Unless otherwise indicated, copyright in the content of this website is the property of the University of Queensland under Australian copyright law. The site may also include content whose copyright belongs to third-parties and which has been lawfully included in this site by agreement or specific licence.

For personal, non-commercial purposes, you may view or make copies of the material contained on the site. Content may not be systematically downloaded, retrieved or stored. Content may not be reproduced or transmitted without our prior written permission.

Copyright enquiries relating to web content should be directed to the authorising officer listed in the footer of every page.

[More information about copyright at UQ.](#)

Privacy

The University of Queensland's [Privacy Management Policy](#) specifies that the University must collect, store, provide access to, use and disclose personal information in accordance with the [Information Privacy Act 2009 \(Qld\)](#) ([PDF, 1MB](#)). Whenever a UQ website or online system collects or uses personal information, it must do so in accordance with this policy and with state and federal privacy laws.

More information on privacy at UQ can be obtained from the [Right to Information and Privacy Office](#).

If you have any questions or concerns about personal information displayed on, or collected by, a particular UQ web page or online system, you can:

- use the feedback form linked from the page footer
- contact the person who authorised the content (identified in the page footer)
- contact the [Right to Information and Privacy Coordinator](#).

Google Analytics

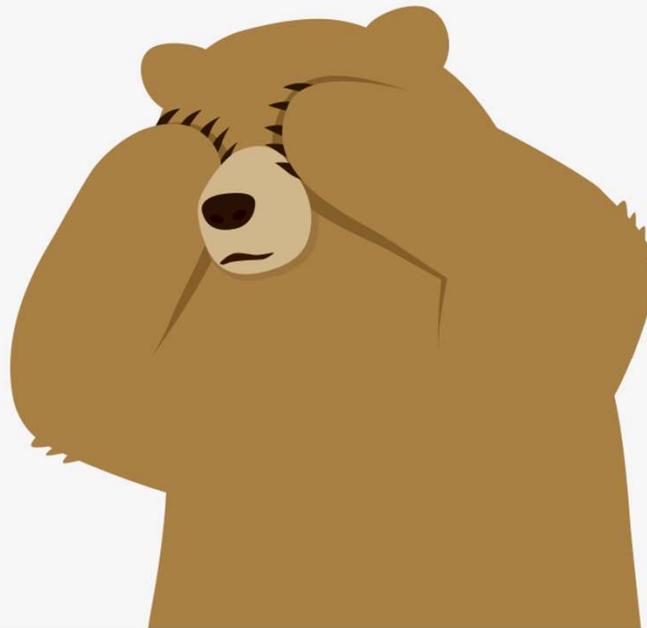
<https://www.uq.edu.au/terms-of-use>

W3C Platform for [Privacy Preferences Project](#) (P3P):

- Work suspended in 2006
- Standardised format for expressing privacy policy
- Machine & human readable:
 - A P3P enabled web browser compares a website privacy policy to the user's privacy preferences

An Attempt At a Standard

Privacy Policy



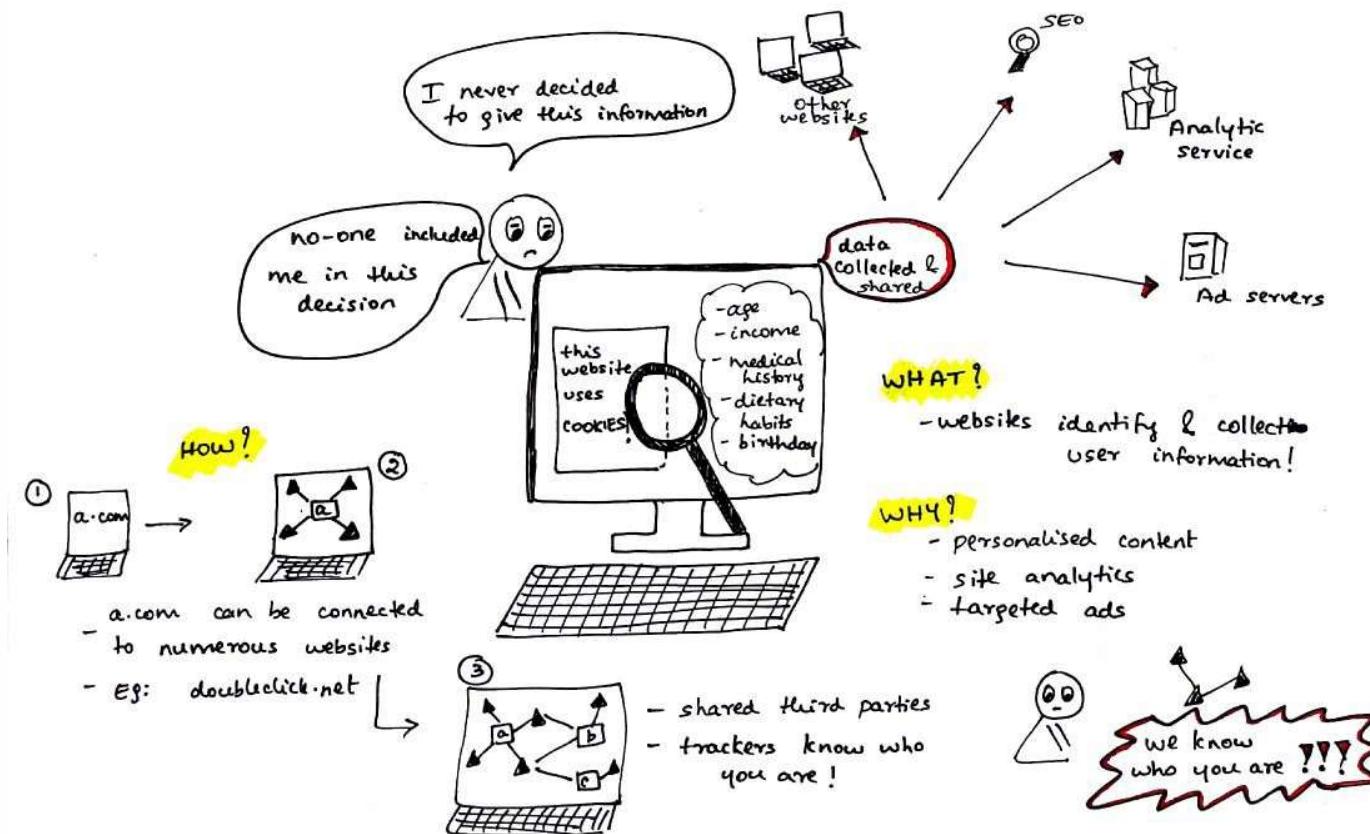
<https://www.tunnelbear.com/privacy-policy>

use our services ("Services").



Tracking On the Web

WEB TRACKING



<https://medium.freecodecamp.org/what-you-should-know-about-web-tracking-and-how-it-affects-your-online-privacy-42935355525>



Share

4.3M people like this. [Sign Up](#) to see what your friends like.

<https://developers.facebook.com/docs/plugins/like-button>

Emma Igelström har opererat b... X

https://www.aftonbladet.se/sportbladet/a/P90yxR/nu-ar-det-onda-ute-ur-min-kropp

**SPORT
BLADET**

KÖP PLUS + LOGGA IN

"Det enda jag önskar just nu är att kunna vakna en morgon och känna mig pigg, glad och inte ha ont. Jag vet att den dagen kommer, och jag har nog aldrig längtat efter något så mycket", skrev Emma Igelström när hon i mars berättade att hon drabbats av en tumör i livmodern.

ANNONS

Voodoo DREAMS CASINO Spela ett magiskt casino direkt via Mobilt ID Börja spela! 18+. Regler & villkor gäller. stodlinjen.se

Rich Wilde and the BOOK OF DEAD

J K K K K
A Q 10
K A

Jag har en tumör i min livmoder. En snäll sorts säger de. Jag är inte rädd för tumörer. Rådslan över det är inte kämpig. Inte ett dugg.

1 3.80
X 4.75
2 1.73

UNIBET Av spelare, för spelare

Aldersgräns 18 år | Regler och villkor gäller | stodlinjen.se | spelpaus.se
Spela ansvarsfullt.

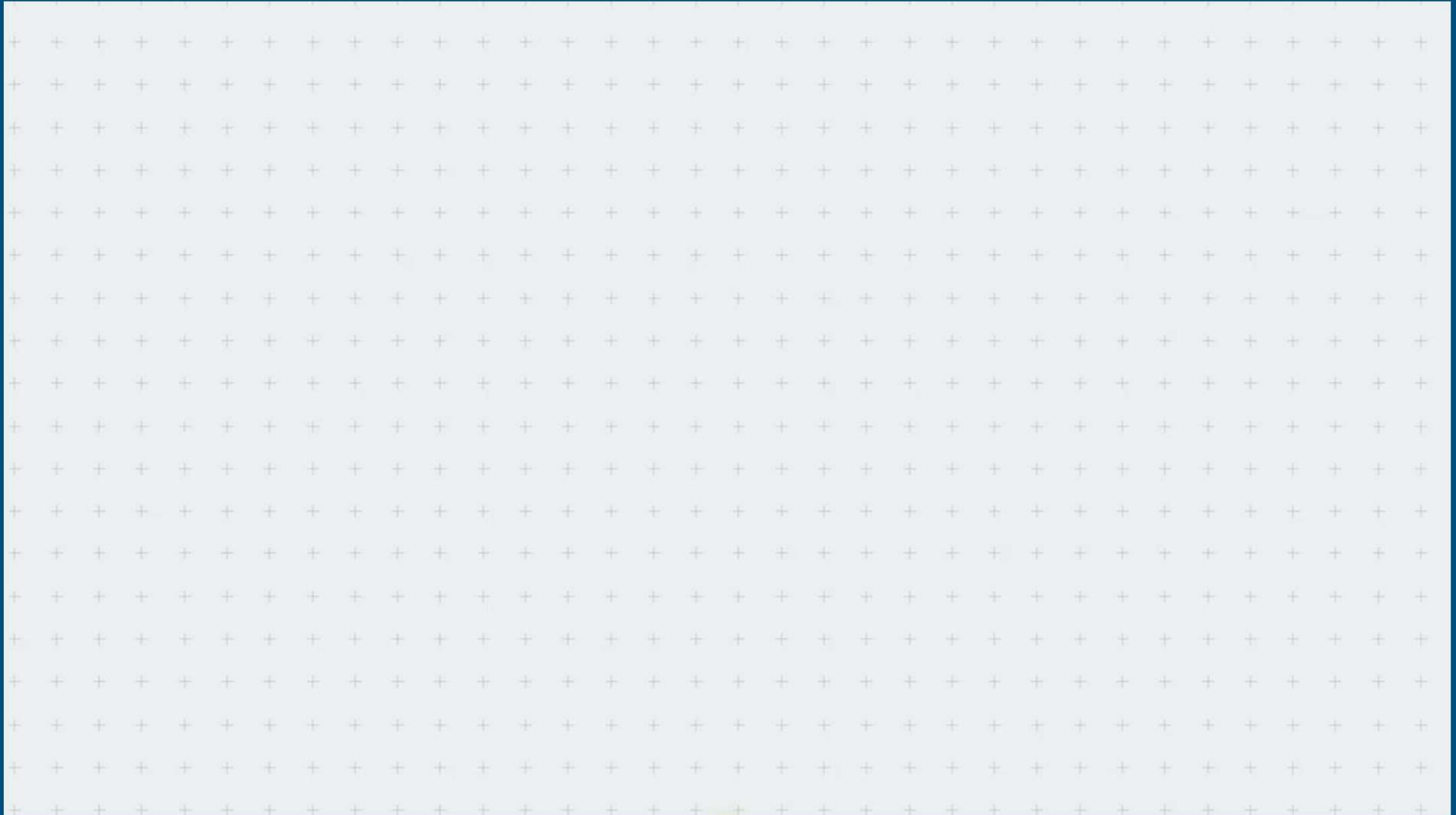
MEST LÄST

08:35 FOTBOLL Hyllar Zlatan efter speciella mötet

07:49 FOTBOLL Chelsea till final efter straffdrama

06:50 FOTBOLL Irriterad Özil när Arsenal säkrade finalplaceringen

<https://www.aftonbladet.se/sportbladet/a/P90yxR/nu-ar-det-onda-ute-ur-min-kropp>



https://www.ghostery.com/wp-content/uploads/2018/08/ghostery_promo.mp4

The New York Times - Breaking News

https://www.nytimes.com

Tuesday, May 7, 2019

World U.S. Politics N.Y. Business Opinion Tech Science

Your Tuesday Briefing The royal baby is here.

CHINA AND THE U.S.

Trump Is Prepared to Hit China With More Tariffs on Friday, Adviser Says

Emboldened by strength in the American economy, President Trump may prolong his monthslong trade war, his advisers said.

He was angered by China's attempts to renege on previous commitments and insistence that the U.S. lift tariffs on \$250 billion worth of imports.

2h ago 275 comments

How Chinese Spies Got the N.S.A.'s Hacking Tools, and Used Them

The latest case of cyberweapons escaping American control raises questions about the country's expensive and dangerous digital arsenal.

22m ago

TRUMP ADMINISTRATION

Mnuchin Refuses to Release Trump's Tax Returns to Congress

The refusal defies a request from House Democrats and sets up a legal battle that is likely to be resolved by the Supreme Court.

House Judiciary Committee to Vote Wednesday to Hold Barr in Contempt

The move comes after Attorney General William P. Barr missed a deadline to deliver a full, unredacted version of the

Simple View Detailed View LOG IN

18 TRACKERS

Advertising 5 TRACKERS 5 BLOCKED

Google-Publisher-Tags

Media.net

Amazon Associates

BlueKai

DoubleClick Floodlight

Essential 1 TRACKER

Google Tag Manager

Trackers Blocked: 16 Page Load: 2.63 secs

Trust Site Restrict Site Pause Ghostery

2 4 1

President Trump is facing pressure to show that the pain of his trade war will be worth it for the companies, farmers and consumers caught in the middle.

Doug Mills/The New York Times

We Are Taking Religious Freedom Too Far

We have a right to practice our beliefs, but we don't have the right to endanger the lives of others.

4h ago 672 comments

Kara Swisher

Trump Is Confused About Social Media. He's Not Alone.

'Her Royal Highness and the Baby Are Both Doing Well'

Thorin Klosowski

7 Simple Ways to Protect Your Digital Privacy

James Reston Jr.

Trump's Other Impeachable Offense



General

Home

Search

Privacy & Security

Firefox Account

Content Blocking



Block third-party content that tracks you around the web.

[Manage Exceptions...](#)

Control how much of your online activity gets stored and shared between websites. [Learn more](#)

Standard

Only blocks known trackers in Private Windows.

Strict

Blocks all trackers Firefox detects. May cause some sites to break.

Custom

Choose what to block.

Send websites a "Do Not Track" signal that you don't want to be tracked [Learn more](#)

Always

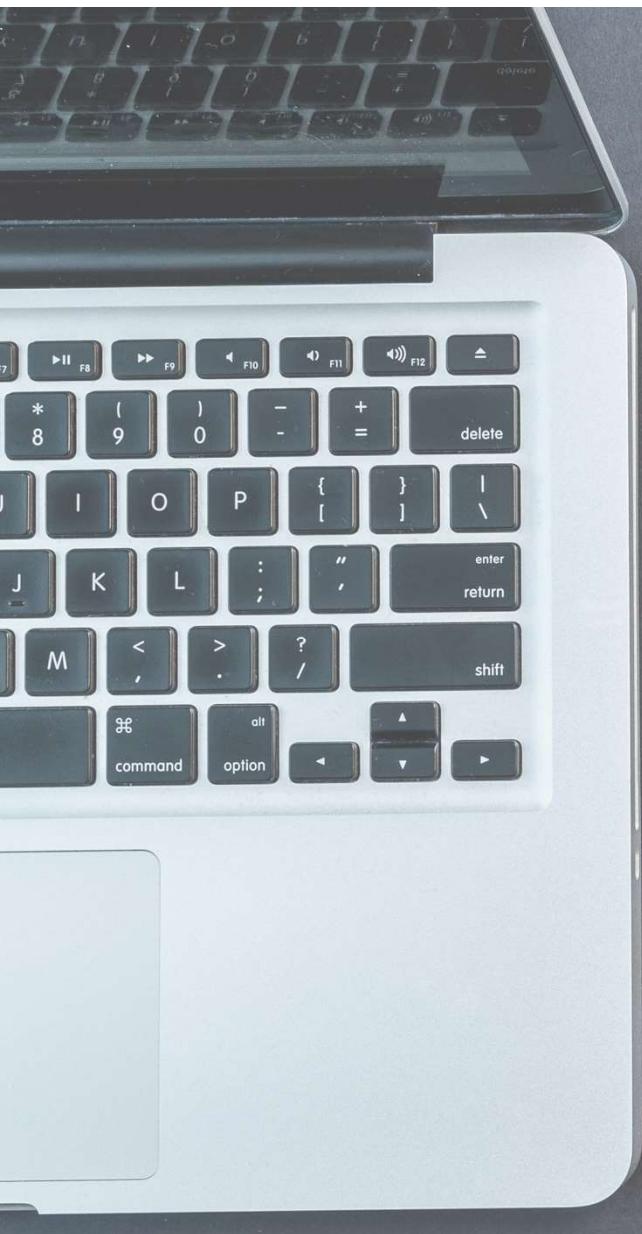
Only when Firefox is set to block known trackers

Advertising brings in
good revenue for a lot of businesses

Going to be less specific information
available in website visitor
statistics/analytics

Trying different forms of monetary
support (e.g. paid membership, Patreon etc)

What Does This Mean For Web Devs?



How many visitors (unique & hits)?

Where in the world are they from?

Where on the web are they from?

How long are they on my website?

Some generalised demographics?

Google Analytics

```
<!-- Global site tag (gtag.js) - Google Analytics -->
<script async src="https://www.googletagmanager.com/gtag/js?id=UA-13020727-1"></script>
<script>
window.dataLayer = window.dataLayer || [];
function gtag(){dataLayer.push(arguments);}
gtag('js', new Date());

gtag('config', 'UA-12345678-1');
</script>
</body>
</html>
```

How to Implement Google Analytics



Why Should I Use GA?

Especially great for new web developers

Determine popularity of features/pages

See where most of your visitors are coming from

Use it as part of user testing

Don't overdo it!

- Performance suffers
- Trust reduces

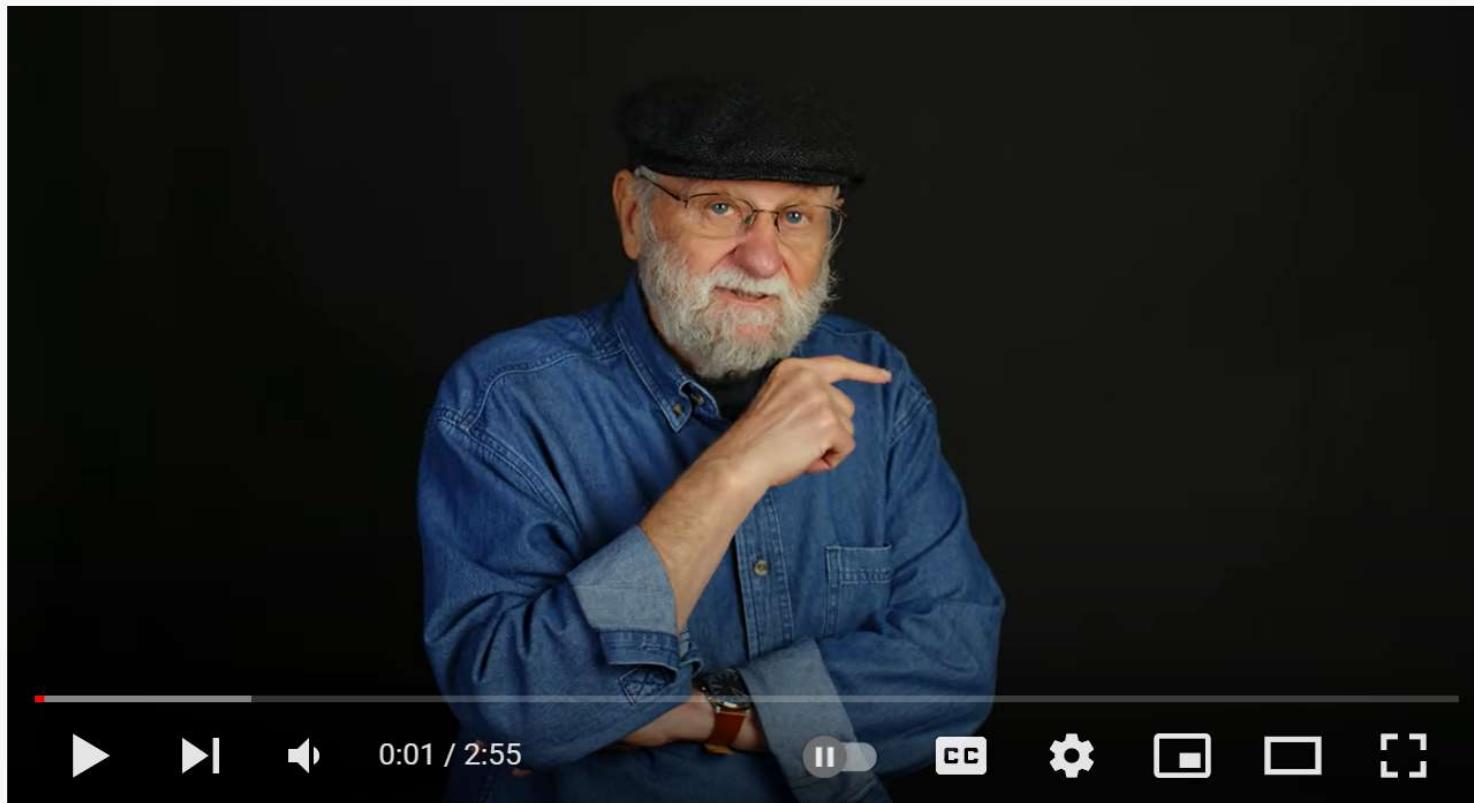
Use them to provide
extra value to your users

Should I Use Trackers Generally?

The background image shows a vast sky filled with various types of clouds, from wispy cirrus to denser cumulus. The lighting is from the sun, which is either low on the horizon or behind the clouds, casting a warm, golden glow across the entire scene. The colors range from deep blue at the top to bright yellow and orange near the horizon.

To Summarise

Human-Centred Design



Principles of Human-Centred Design (Don Norman)
<https://www.youtube.com/watch?v=rmM0kRf8Dbk>

Gentle Reminder



Practical activities are available on Blackboard (Week 11 & 12) – you might find them useful for the implementation assignment

No Lecture in Week 13

Source code + report: Due 30 May, 1pm

Website implementation presentations are due in Week 13 (during the week), poster due on Fri 3 June (4pm)

PeerWise due on 3 June (4pm)

That's it, folks ☺

You have been wonderful students!

Please fill out the Course and Teaching Evaluation forms and tell us what you liked about the course and what we can do to improve it further in future