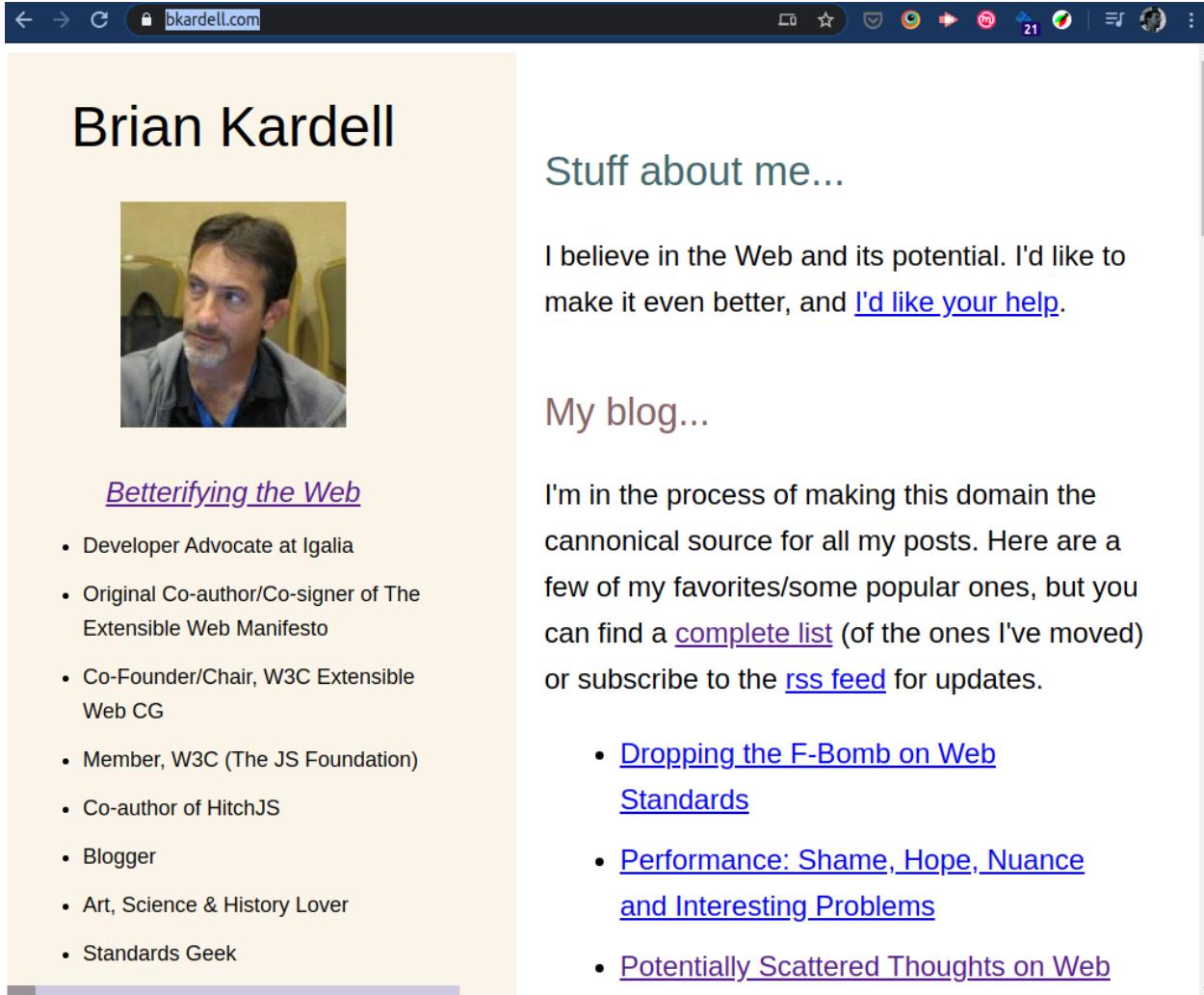


**Extending the Web:
Maps, the Web
Commons and pie.**

The web..



A screenshot of a web browser window displaying a personal website. The address bar shows "bkardell.com". The page content includes a header with the name "Brian Kardell" and a portrait photo. Below the photo is a section titled "Betterifying the Web" with a bulleted list of interests. To the right, there are two columns: "Stuff about me..." with a bio and a link to help, and "My blog..." with a bio and a list of blog post titles.

Brian Kardell



[Betterifying the Web](#)

- Developer Advocate at Igalia
- Original Co-author/Co-signer of The Extensible Web Manifesto
- Co-Founder/Chair, W3C Extensible Web CG
- Member, W3C (The JS Foundation)
- Co-author of HitchJS
- Blogger
- Art, Science & History Lover
- Standards Geek

Stuff about me...

I believe in the Web and its potential. I'd like to make it even better, and [I'd like your help](#).

My blog...

I'm in the process of making this domain the canonical source for all my posts. Here are a few of my favorites/some popular ones, but you can find a [complete list](#) (of the ones I've moved) or subscribe to the [rss feed](#) for updates.

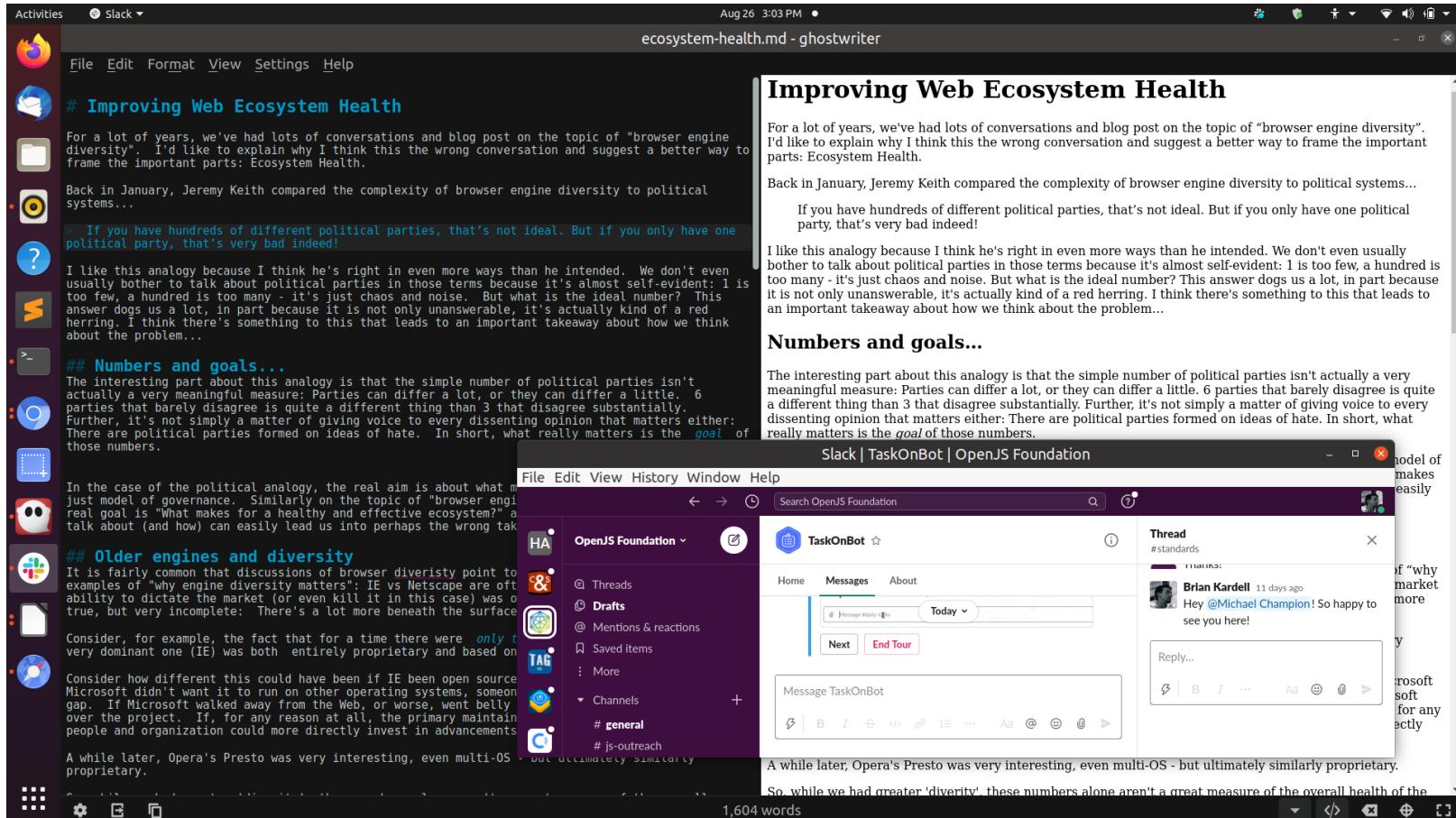
- [Dropping the F-Bomb on Web Standards](#)
- [Performance: Shame, Hope, Nuance and Interesting Problems](#)
- [Potentially Scattered Thoughts on Web](#)

Websites for everyone!

- Social media
- Email
- Office Apps
- Graphical tools
- Online Banking
- Shopping
- Maps!
- etc..



Many desktop apps and mobile apps *also* use web engines



Need a drink? There's a web engine!

duckduckgo.com/?q=smart+refrigerator&atb=v146-1_&ax=images&ia=images

smart refrigerator

All Images Videos News Maps Settings

All Regions Safe Search: Off All Sizes All Types All Layouts All Colors

Samsung Family Hub ...
thegadgetflow.com

What Is a Smart Refrigerator...
lifewire.com

Buy SAMSUNG Fa...
currys.co.uk

IFA 2016: S...
channelnew...

Samsung 27.9 cu...
homedepot.com

Samsung Smart Refrigerator...
appliancebuyersguide.com

Samsung Smart ...
appliancebuyers...

Samsung 27.7 cu...
homedepot.com

Samsung Family Hub S...
thegadgetflow.com

Best 5 Futuristic Smart Refrigerators
youtube.com

Buy SAMSUNG Fa...
currys.co.uk

LG Electronics 2...
homedepot.com

Samsung Smart...
appliancebuyers...

Samsung 22 cu....
homedepot.com

Samsung 21.9 c...
homedepot.com

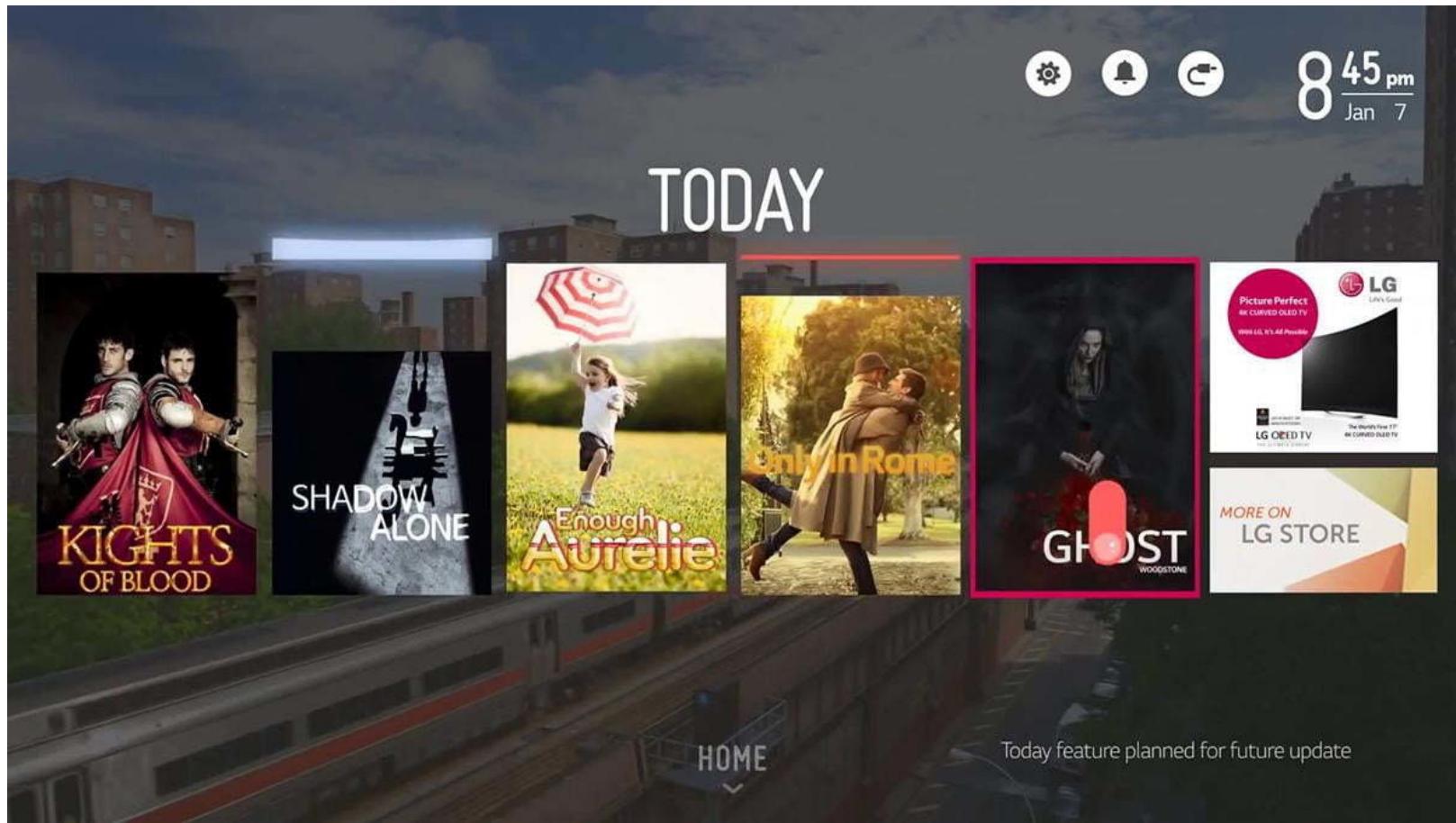
LG LMXS30796...
shopyourway.com

Why people are connec...
imore.com

Samsung 22.2 ...
homedepot.com

Family Hub™ Fridg...
samsung.com

Wanna watch TV? They use web engines!



Cars also use web engines

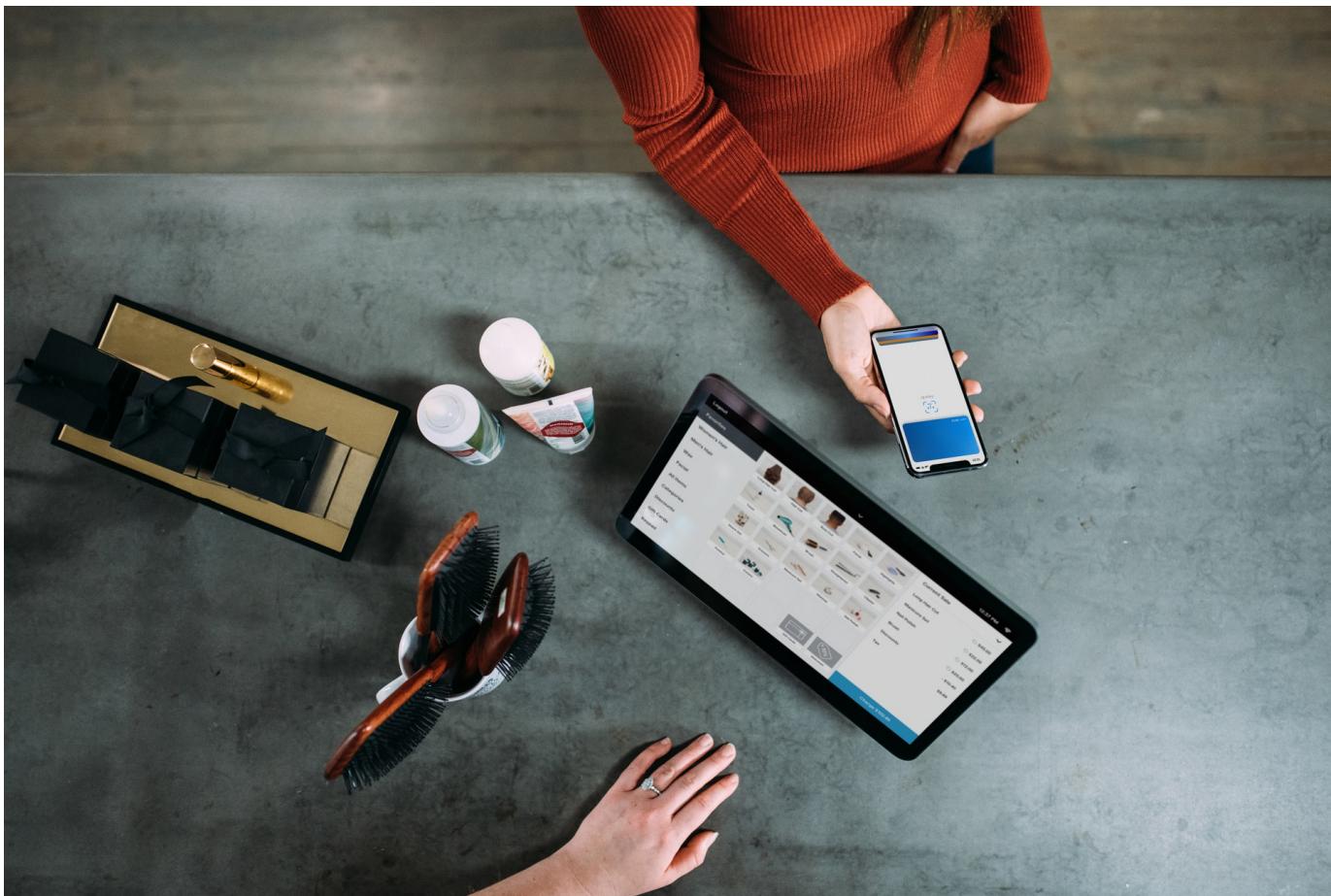


youtube.com/NomadsCar

Digital signs... use web engines.



ding ding ding -- web engines!



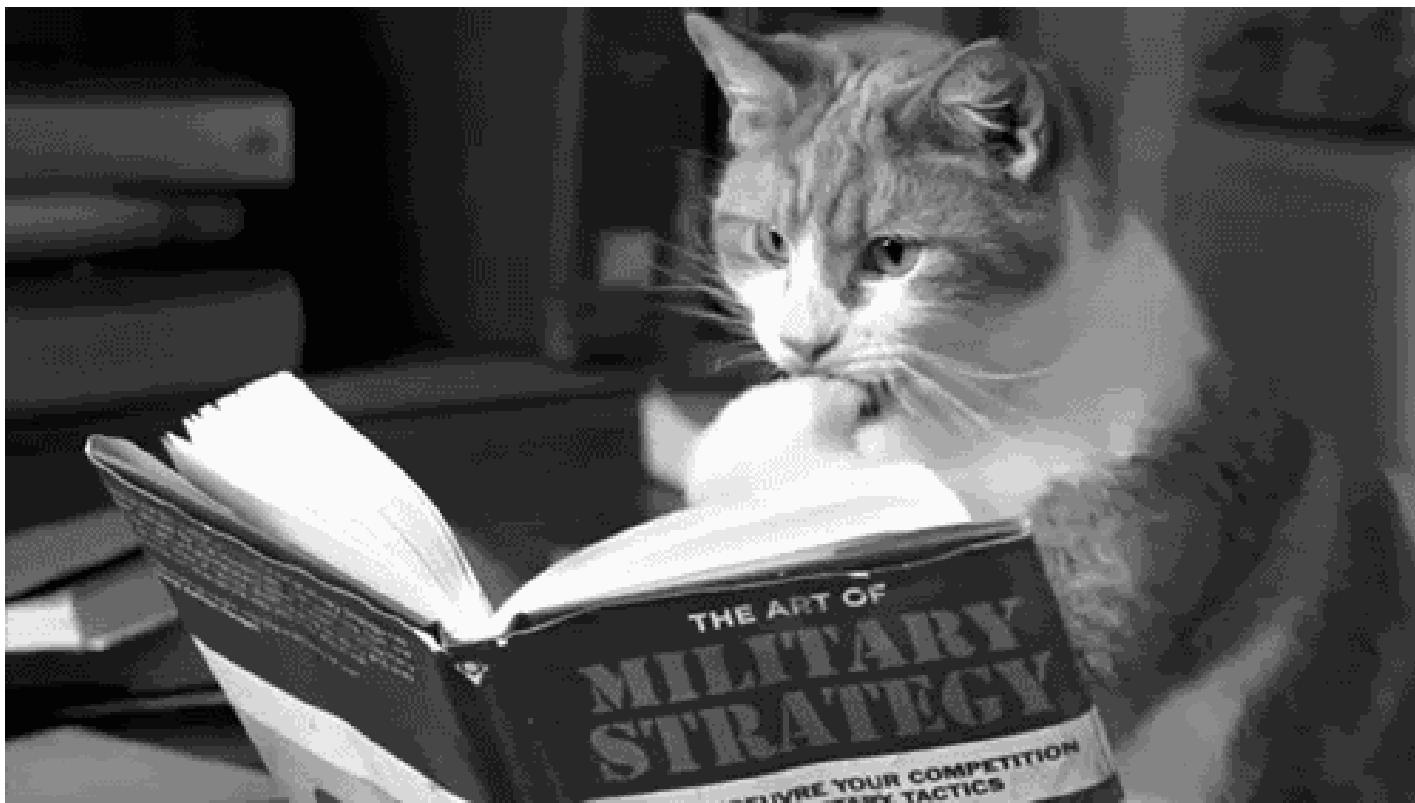
As long as there's a
UI...

You can't hide



No, really, you can't.

Many books are printed using web tech too.



The Web Platform is Infrastructure.. a commons.



But...

It can take a while...



If you're a developer, that can feel... not good.

Your call is important to us. Please stay on the line until your cold, dead corpse turns to fossilized bone and archeological fragments.



som~~ee~~ecards
user card

Let's talk about why
it's hard...
and how we can do
better.

Pie

We're all prioritizing some time and energy, right now... is it worth this much pie?



Does everyone have the same budget? No.



If it's your whole purpose...



But *importantly*:
Its still finite...
and voluntary.

It's not cheap.

Chromium: ~8,304 years of person effort

WebKit: 5,442 years of person effort

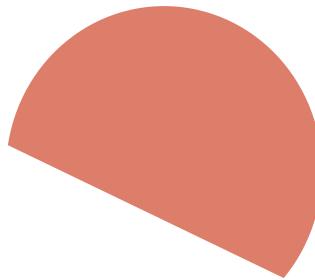
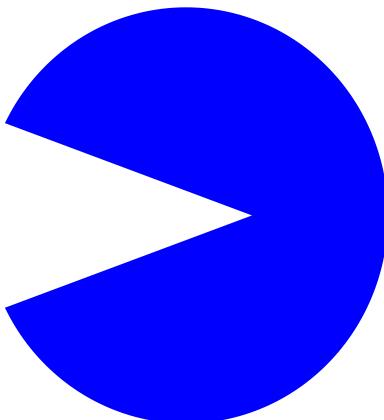
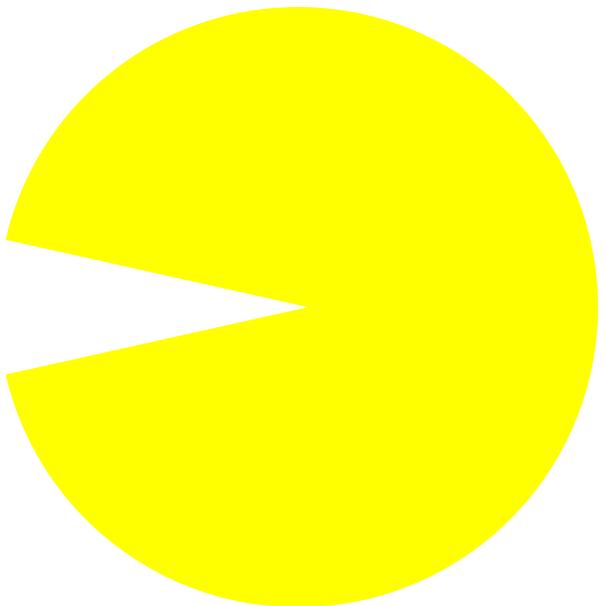
Firefox: 7,242 years of effort

(COCOMO model)



Wants





- Finite budgets
- Different sizes
- Different architectures
- Different constraints/priorities



~ 2012

The cost of all of these things is very high

- agreeing there is even a thing is to discuss
- agreeing on details
- getting it done
 - ...everywhere
 - ...interoperability
 - ...accessibility kinks
 - ...styleability?
- education
- <developers are involved>
-still getting it wrong.



~130 elements...
mostly 'spicy divs'

Near 0 implementation cost, lots of standards costs

▼ Summary / Details

Very probably the simplest UI widget in existence. Very common in GUIs for almost as long as there have been GUIs.

Last major browser added support... last year.

... by way of attrition.

How's that super expensive pie?



Cow Paths?

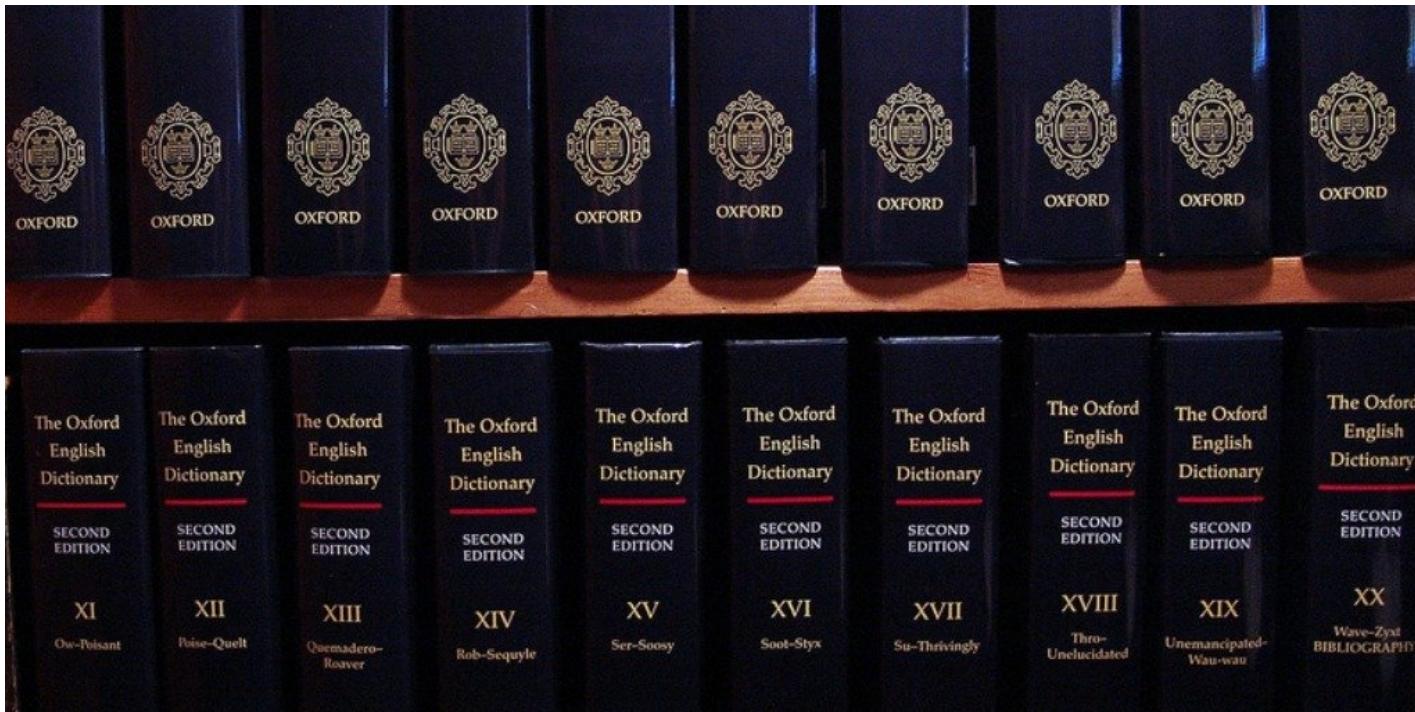


This is hopeless.





<address>



1. Make identifying cow paths /
dictionary science easier... Get out of the
way in the meantime.

Give developers mostly the same abilities

<x-details>

Is it good enough?

...As judged by constraints we may not even understand, or might not even exist yet

the web itself.

I expected HTML to be the basic warp and weft of the Web but documents of all types: video, computer aided design, sound, animation and executable programs to be the colored threads that would contain much of the content.

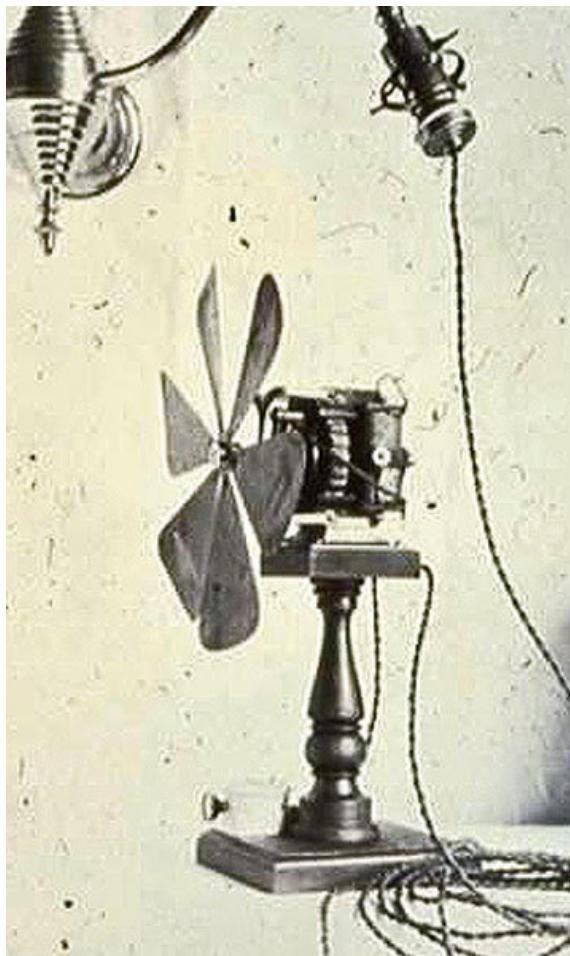
- Tim Berners-Lee in Weaving the Web

- radio
- telephone
- record player

Failure is a feature.

It's necessary along the way.

Ingenuity



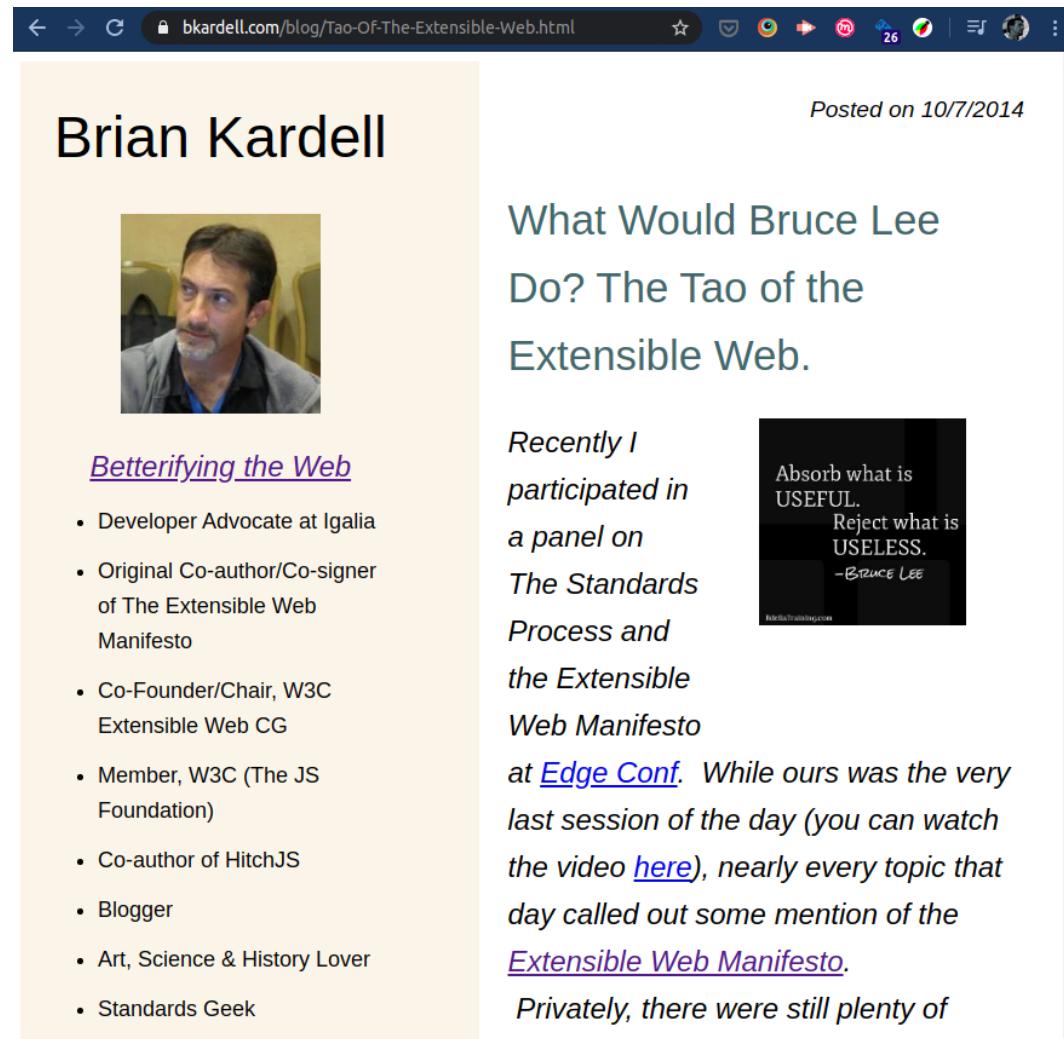


Thanks to Bruce Lawson for the Logo :)

"Low Level Primitives"



Yes... and no.

A screenshot of a web browser window displaying a blog post. The URL in the address bar is bkardell.com/blog/Tao-Of-The-Extensible-Web.html. The browser's toolbar is visible at the top. The main content area shows a title, author photo, bio, and a sidebar with a quote from Bruce Lee.

Brian Kardell

Posted on 10/7/2014

**What Would Bruce Lee
Do? The Tao of the
Extensible Web.**



[Betterifying the Web](#)

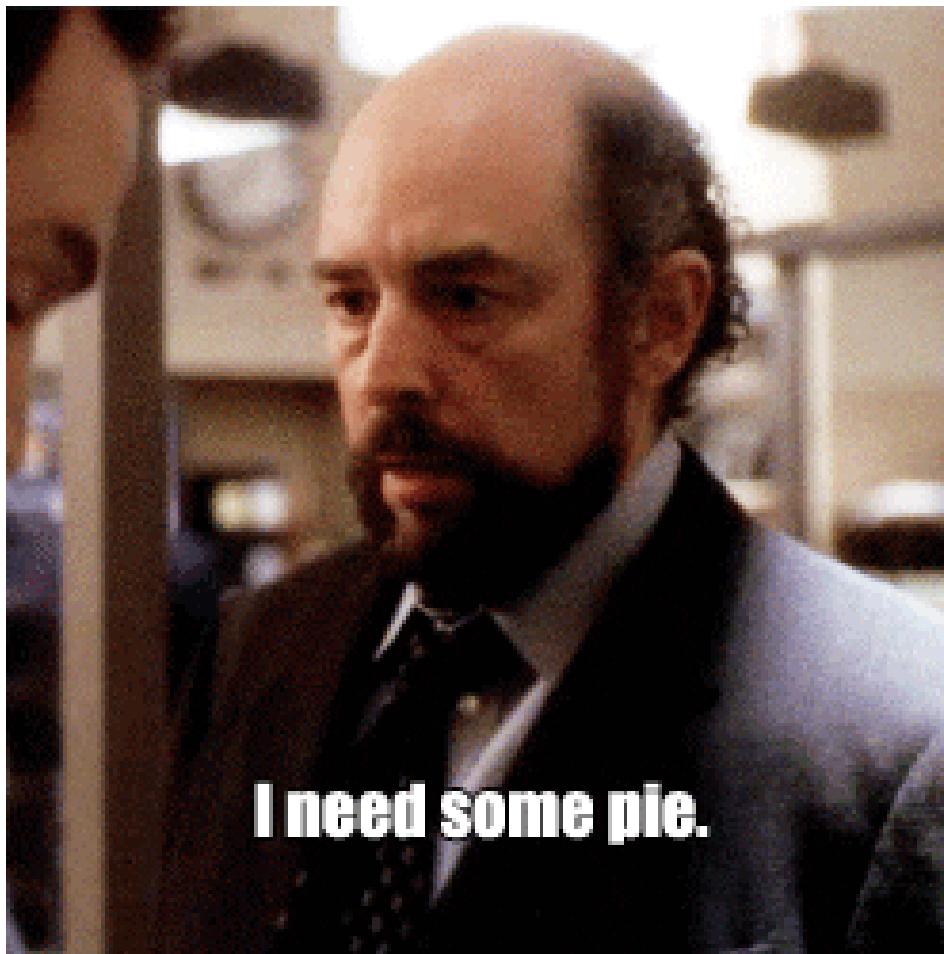
- Developer Advocate at Igalia
- Original Co-author/Co-signer of The Extensible Web Manifesto
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- Member, W3C (The JS Foundation)
- Co-author of HitchJS
- Blogger
- Art, Science & History Lover
- Standards Geek

Recently I participated in a panel on The Standards Process and the Extensible Web Manifesto at [Edge Conf](#). While ours was the very last session of the day (you can watch the video [here](#)), nearly every topic that day called out some mention of the [Extensible Web Manifesto](#).

Privately, there were still plenty of

Absorb what is USEFUL.
Reject what is USELESS.
—BRUCE LEE

Share the pie.



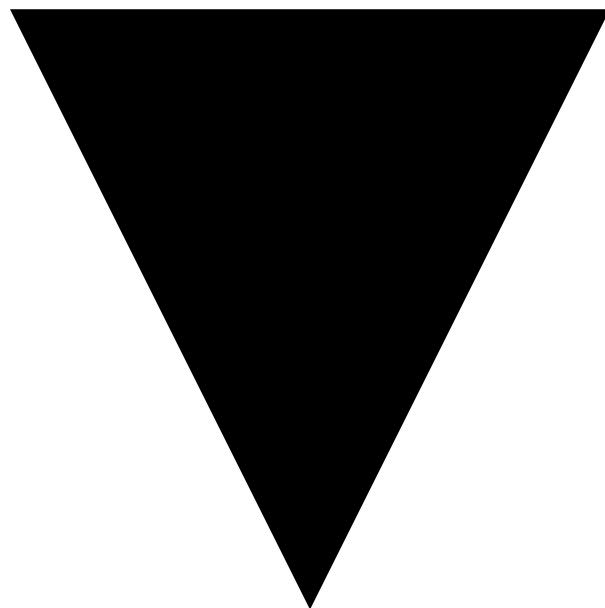
I need some pie.

Break it down.

Reduce the challenges.

Aim for the middle.

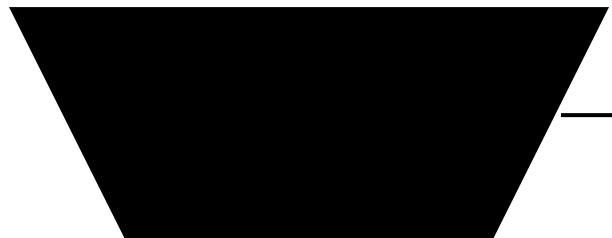
<dialog>



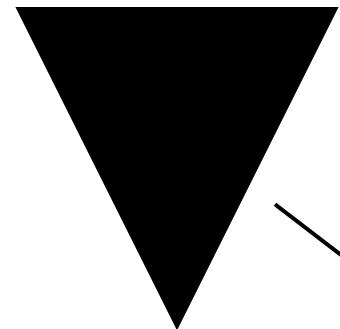
inert:

a complex juggle of existing management of events,
attributes, text-selection, etc.

Useful for many UI patterns.... Including some 'common'
ones that aren't remotely close to standardizable.



Pie required for *lots* of things



Pie required for dialog

resilience/adaptability



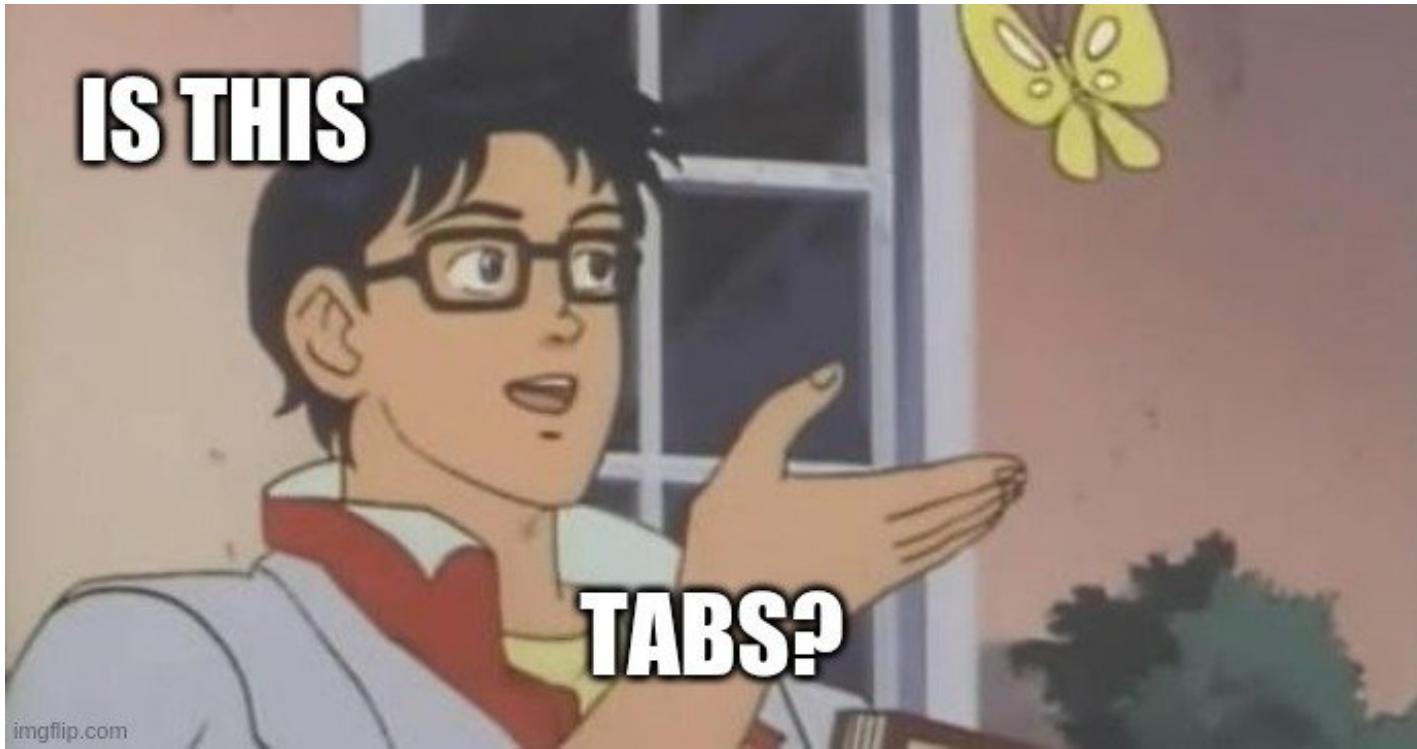
JSON vs XML

infinite halves...?

<tabs>

- "In every GUI, like summary/details"
- ARIA
- Was in early WHATWG HTML..
- There are (probably) no middles left!
- Pave that path yo? What's the hold up?

But the cow paths...



The screenshot shows a web browser window with the URL open-ui.org in the address bar. The page has a dark header bar with various icons. On the left, there's a sidebar with a vertical list of links: Home (which is active, indicated by a green border), Charter, Contribute, Analysis, Button, Breadcrumb, Card, Component Name Matrix, Datepicker, Skeleton, Slider, Switch, and Text. Below this list is a small link labeled "Components". The main content area has a heading "The missing industry standard definition of UI Web platform". To the right of the heading is a text block: "This project is in its infancy. Expect rapid iteration and high-flux while we flesh out the mission and process." Below that is another text block: "Thanks!". Further down, there are two more text blocks: one about the purpose of Open UI and another about the implementation details.

This project is in its infancy. Expect rapid iteration and high-flux while we flesh out the mission and process.

Thanks!

The missing industry standard definition of UI

Web platform

The purpose of Open UI to the web platform is to allow web developers to style and extend built-in web UI controls, such as `<select>` dropdowns, checkboxes, radio buttons, and date/color pickers.

To do that, we'll need to fully specify the component parts, states, and behaviors of the built-in controls, as well as necessary accessibility requirements, and provide test suites to ensure compatibility. We'll also implement polyfills for our extensible web UI controls.

We need so much pie!

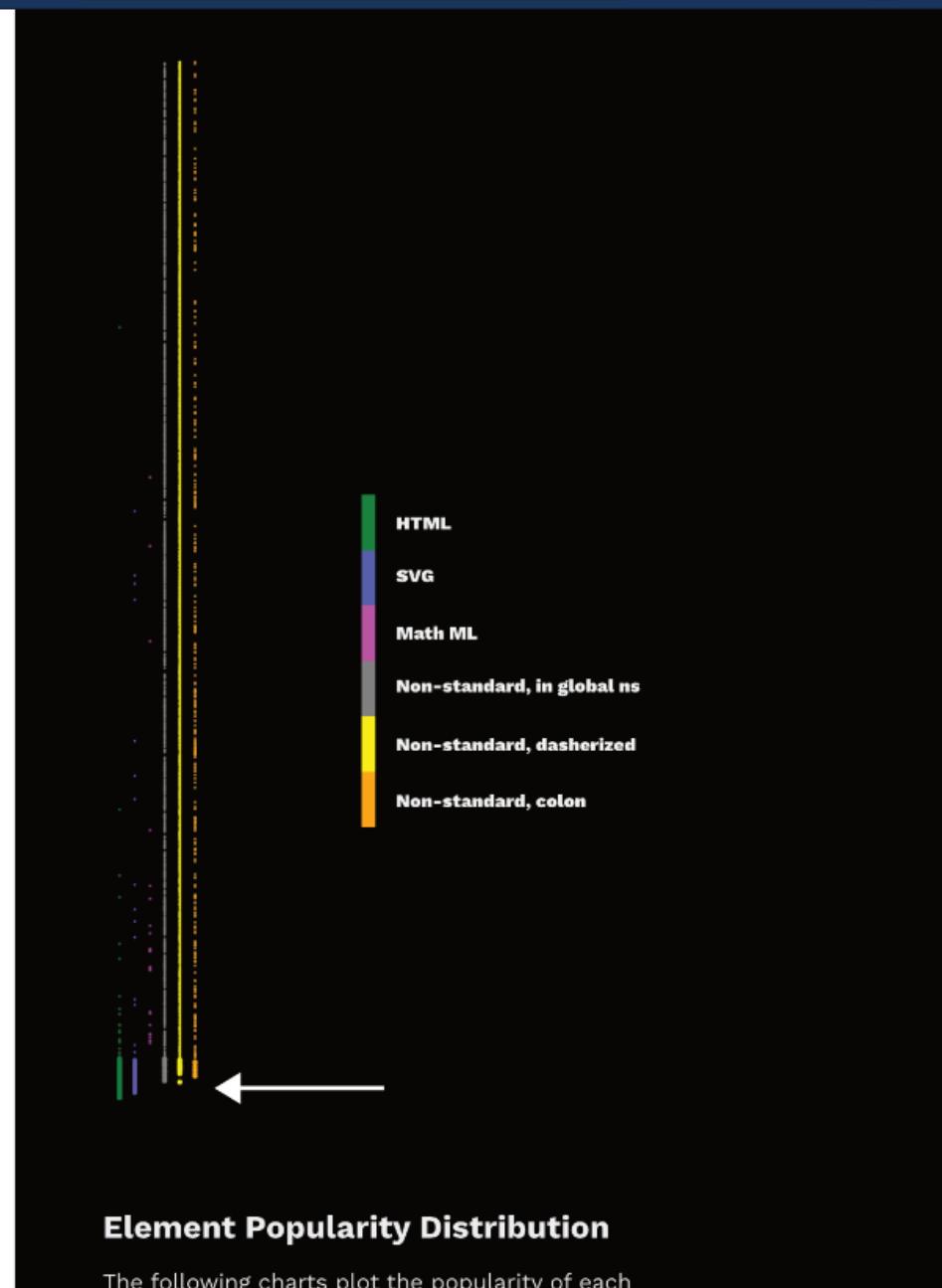
Is this worth investment?



enter developers...



A nice, bright,
unambiguous path
with proof and
estimability.



Real HTTPArchive Data

We had to stop counting at 10k diff elements in real use

The arrow points to the last one to appear on at least 1% of pages

Yellow, close to the arrow is good.

0.01% use some 'tab' elements - > 70 varieties... *very* different.

We will get there!

Tabs vs Maps

IS THIS A



MAP?
Is this a pigeon?

- Request <something, partial which knows how to request more>
- Create GUI that turns this into something interactive
 - Which requests more as needed
 - And is scriptable/styleable?
- With local coordinates



- An explorable map of Mordor for my LoTR site?
- Video game maps?
- A map of the surface of the moon?
- A map of outer space?



#SchittsCreek

- Product images for ecommerce?
- Technical Drawings?

-Infinite scroll?



Each of these things shares some similar challenges, depending on how you squint at it.

Aim for the middle:

- Improve cost-benefit / find unlikely allies
- Lift all boats
- Make the higher-level proposals smaller with steps
- *Share the pie*



For maps?

- Offscreen Canvas?
- Hardware Accelerated SVG?
- Pan and Zoom?
- SPA Patterns?
- What are your ideas?!
- How can I help?

And also...

Bring more pie.



igalia