

Edge conf session writeup

Session:	Polyfills
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Slack channel:	#brkout-polyfills

Agenda

At the beginning of the session, we spend a few minutes brainstorming the issues we want to discuss. Make a list of them here:

- What are you polyfilling and why?
 - CSS/JS language features
 - DOM elements/APIs
 - Should they be used at all?
- Performance
 - Is this a problem?
 - How to measure?
- What can't be polyfilled?
 - Extensible web
 - What could browser vendors do to help?
 - what polyfills are used
- Tools
 - Central Agency for polyfills?
 - Polyfill IO

Discussion

For each topic, note down the main points of the discussion, and mark up any potential opportunities for action, eg file a bug, raise an issue with a working group, start a project, write a blog post, update some documentation etc.

A bullet hierarchy is a good way to capture thoughts as the discussion progresses

What are you polyfilling and why?

- Just JS?
 - CSS

- CSS Sticky
 - Conic Gradient
 - Should CSS be polyfilled at all?
 - Dynamic parsing of stylesheet
 - polyfill calc
 - progressive enhancement instead of polyfill for old browsers
 - flexbox polyfill - preview upcoming browser features
 - if it really fits the bill and the spec is standardized
- Performance cost
 - Language features -> very little
 - Web Components -> Polyfilled by platform.js but very slow on browsers without native components.
 - Which one do you use?
 - Usually only one canonical one
 - Some are exemplified on mdn
 - Usually very peer reviewed
 - Junior developers how do they know what to use?
 - modernizr has a confusing name since it doesn't polyfill
- Problems
 - Spec changing so multiple different implementations included in libraries
 - Hard to test.
 - Should spec authors
 - Need to be included in the library
 - bloat due to included polyfills which eventually aren't needed.
- What polyfills?
 - Promise - polyfill.io one, jakes polyfillfetch
 - fetch, promise, service worker cache
 - svg polyfill

What can't be polyfilled?

- host objects e.g. screen orientation since screen and navigator (.offline etc) etc are not writable.
 - they existed off the prototype change can now polyfill more in chrome i.e. replace .scaleHeight with a getter.
- should modernizr like features be available on the browser.
 - Would allow standardized detection.
- Don't assume one feature is available without the other.
 - e.g. srcset and picture
 - Make sure do for in to detect rather than !feature

Tools

- Polyfill Service (cdn.polyfill.io)

- Potential issues with UA sniffing and “Request Desktop Site”