Polymer in the Real Life

Horacio Gonzalez

@LostInBrittany
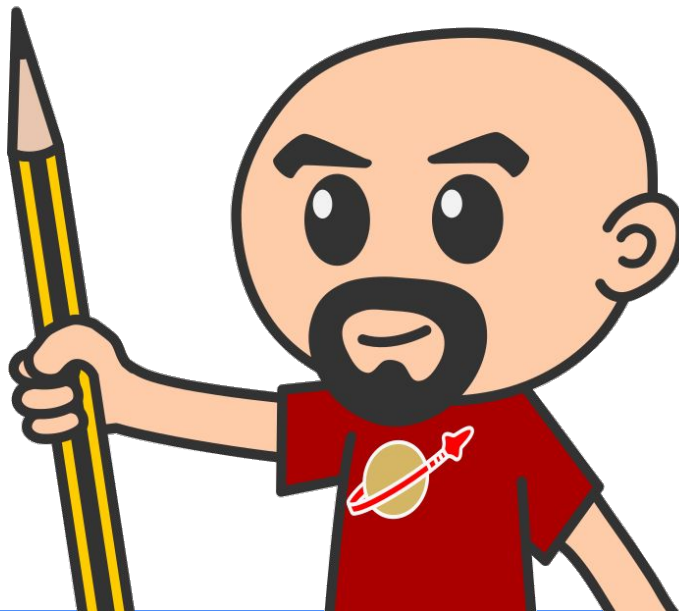
Horacio Gonzalez

@LostInBrittany

Spaniard lost in Brittany, developer,
dreamer and all-around geek

OVH
Team DevRel

Breizh C@mp
Mix de technologies

Finist
Devs

GDG
Finistère

WARP 10
MEETUP

Google Developers
Experts
2015
Web Technologies
GDE

On Polymer tour since 2014

Web components == Revolution

bu.edu

Building a world brick by brick

Brickset
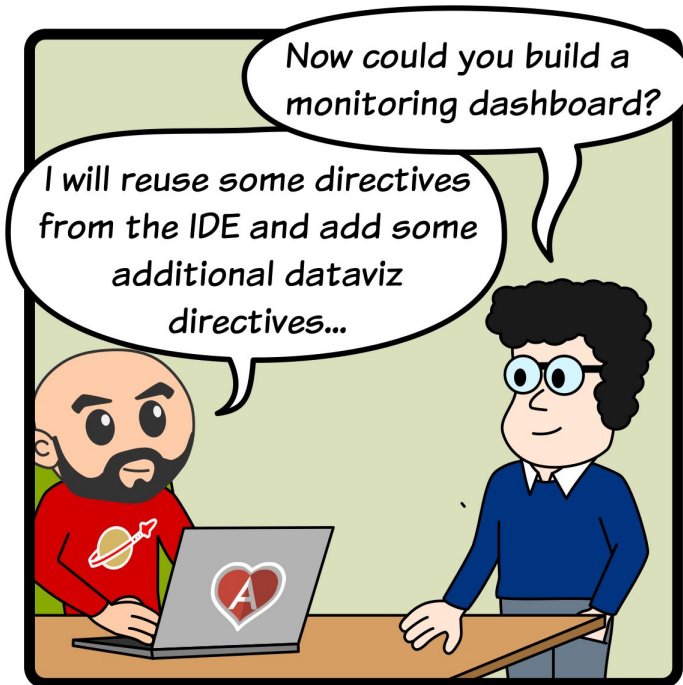
BitRebels

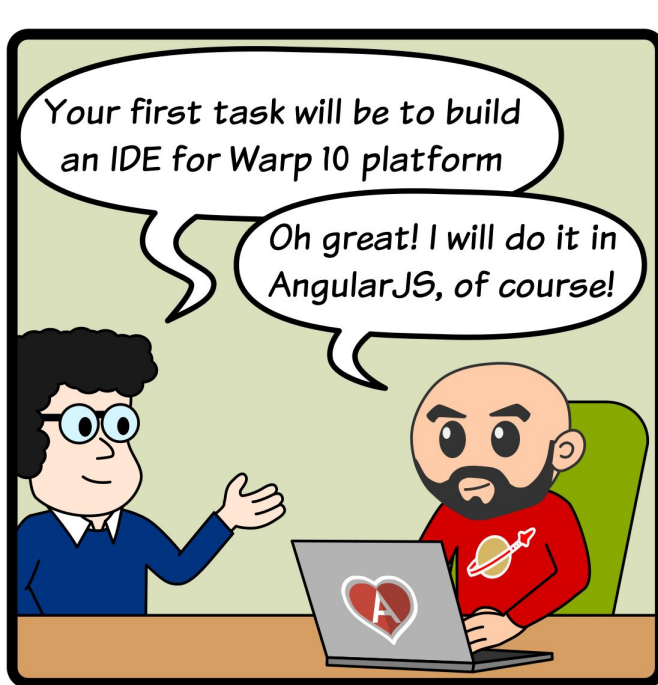ideas.lego.com

Does it work in real life?
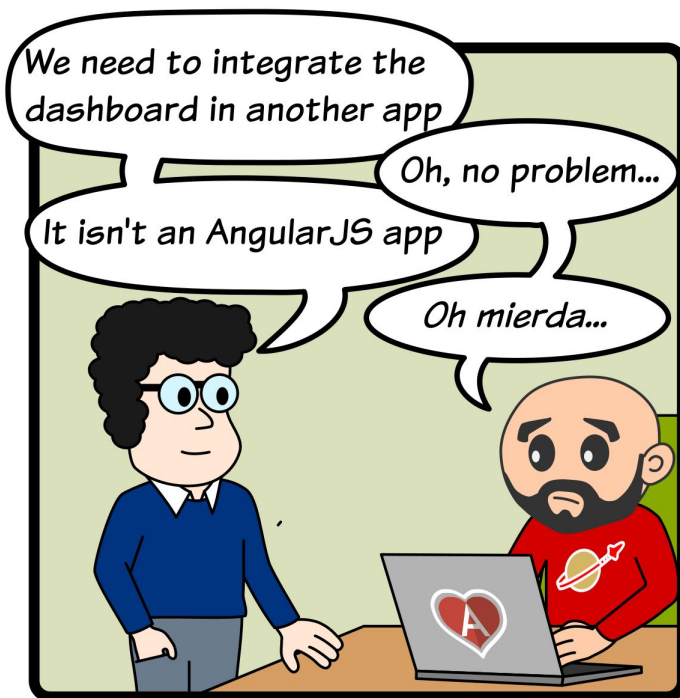
Why Polymer?

"But it would be easier in Angular/Vue/React/TotoJS!"

I was kinda an AngularJS fanboy

Until I hit a wall

Enter Web Components & Polymer

WebComponents, a modular approach to webapps

Since 2014 I've almost exclusively used Polymer for my web needs
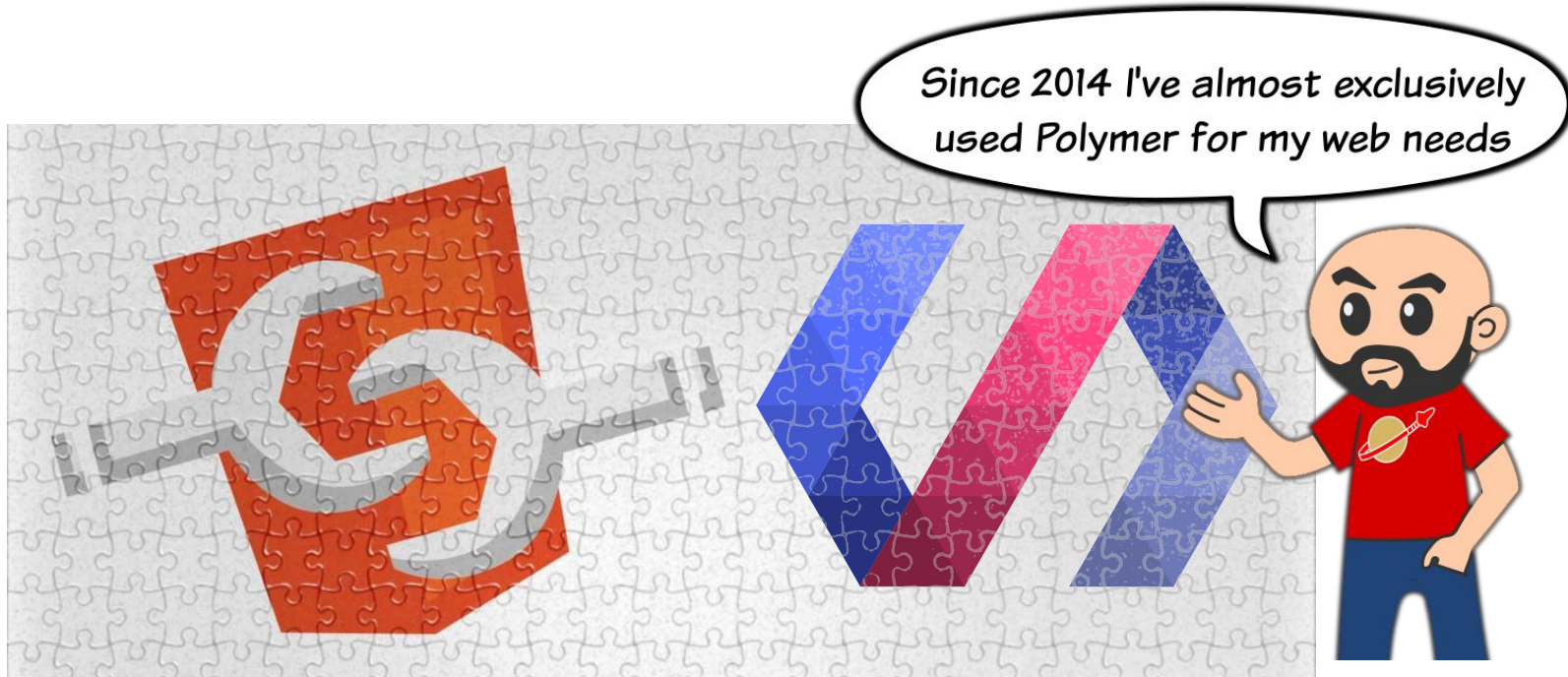
What have you build with Polymer?

Hmmm, lots of things, I must say...

Polymer is mature now...

Polymer 3.0 is here!

Version 3.0 of the Polymer library brings web components into the mainstream, embracing JavaScript modules and npm.

Update your apps and elements for seamless interop with popular frameworks and tools and easy access to the full JavaScript ecosystem.

WHAT'S NEW   **UPGRADE GUIDE**

Welcome to the future...

Starting a new project? Try our next-gen products, headed for release in the coming months:

LitElement

An ultra-light, highly performant custom element base class with a simple but expressive API.

LIT-ELEMENT

PWA Starter Kit

Your one-stop shop for building Progressive Web Apps that make the most of the modern web.

PWA STARTER KIT

Material Web Components

Pixel-perfect realizations of Google's Material Design spec that work anywhere on the web.

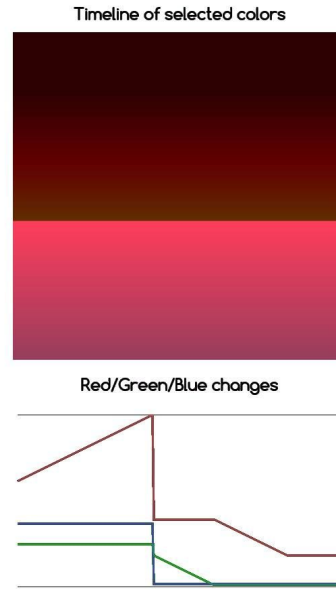**MATERIAL WEB COMPONENTS**

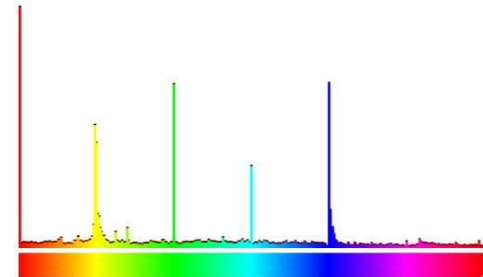# But it wasn't in 2014...

Google's @AlexisMP:

Don't do it, crazy Spaniard, it isn't production ready!

But it worked!

We put our first Polymer app in production on 2014 with Polymer 0.4
Full story: http://blog.cityzendata.com/2015/02/07/behind-CES-colors/

CES Colors was quite a challenge

- Technology wasn't mature and changed quickly
  - We followed the evolution and updated the app often

- Cross-browsing rendering and full responsiveness needed
  - On computer & smartphone, Android & iPhone…

- Rich graphic components using canvas et SVG
  - First experience integrating libraries in Polymer
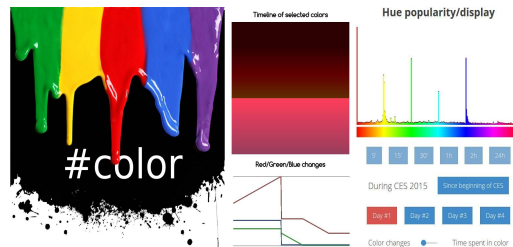
And it worked!

Quantum, IDE for Warp 10

Quantum, IDE for Warp 10

Quantum is a complete application

- Write and execute WarpScript scripts, plot results
  - Integrating non Polymer libraries : nvd3, ace editor…
  - Many custom components

- Several views to execute WarpScript and to push and delete data
  - A router is needed
    - At first page.js was encapsulated in a Polymer element
    - Then we changed to excess-router, done with Polymer
    - And then changed for the official solution, app-route

- Lots of components, lots of imports
  - Using Polymer toolchain to build the releases

QuantumViz / GeoQuantumViz
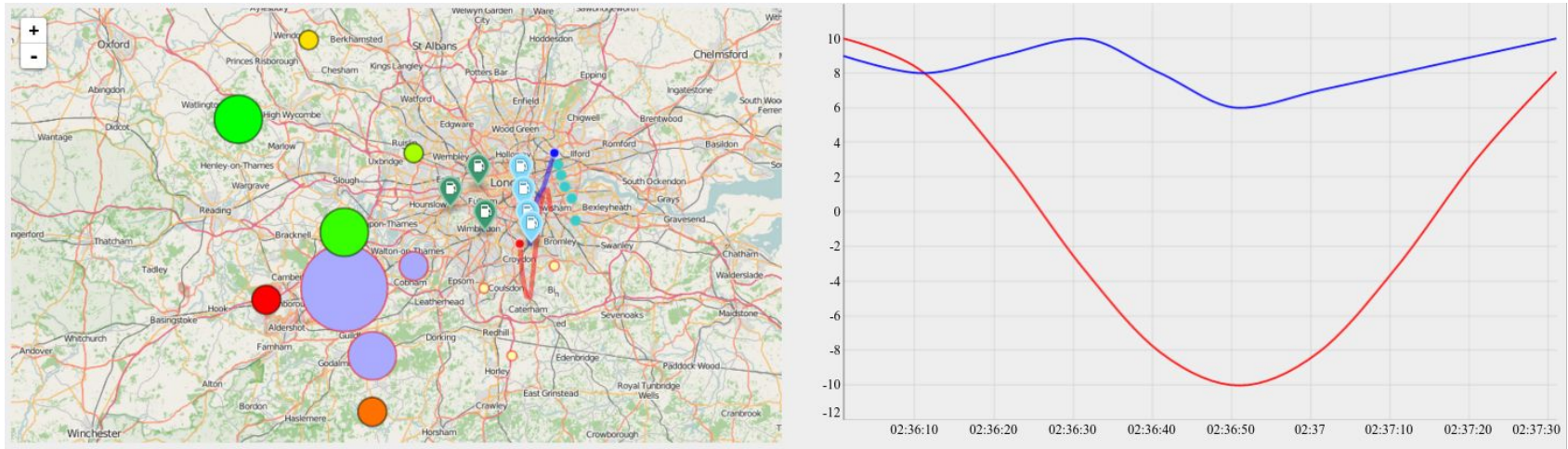
Visualization widgets for Warp 10

Functionally rich

- Widget must be integrable everywhere
  - From full Polymer apps to plain old static pages, from AngularJS to ReactJS
  - Even in Apache Zeppelin notebooks
  - Any modern browser, with reasonable performances

- Several modes
  - Either sending WarpScript to a Warp 10 to get data or Receiving data from other components / applications
  -

Widgets, apps, one shots

And a beer-themed
tutorial: Polymer-beers

Since 2014 I've almost exclusively
used Polymer for my web needs

So what have I learnt?
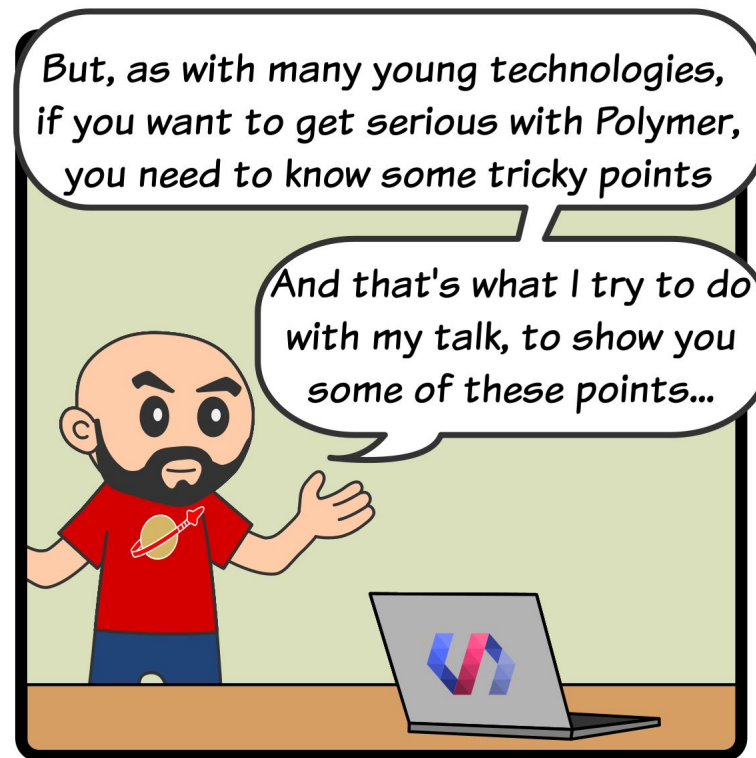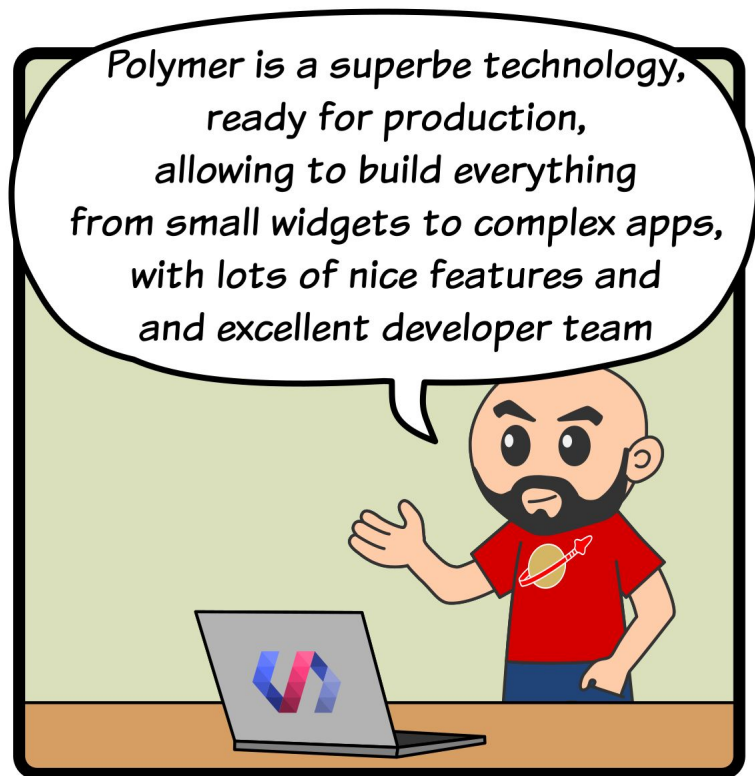
But there is no Web Component for that!

Componentalizing libraries

OVH

It was only the first time...
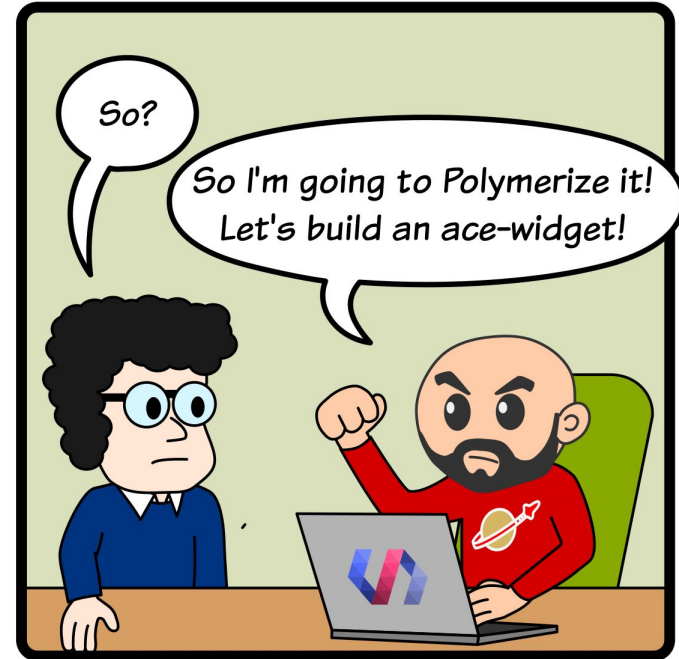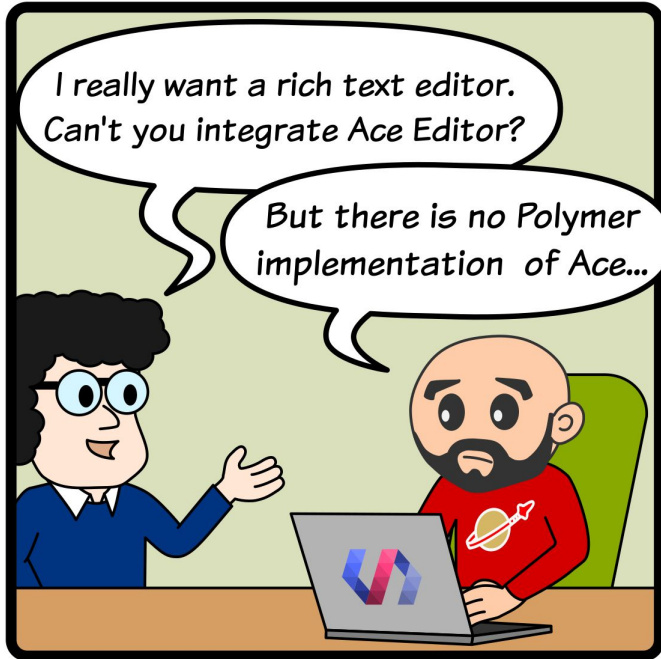
How do I *componentalize* them?
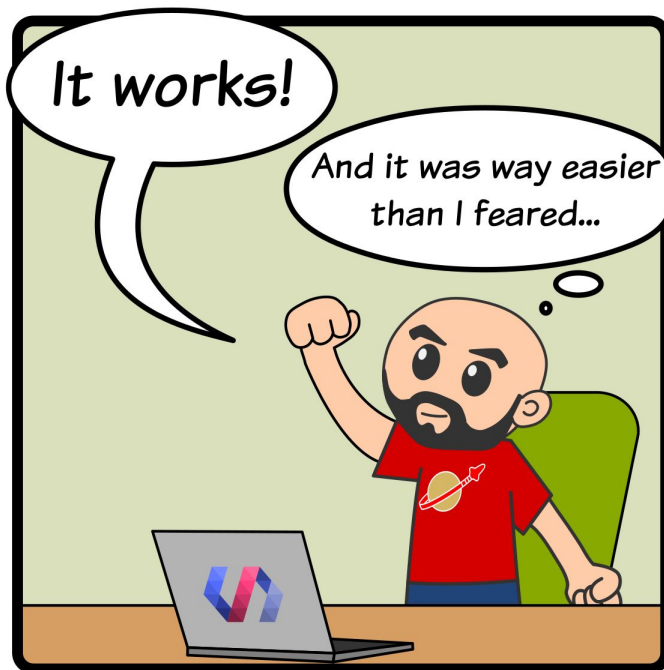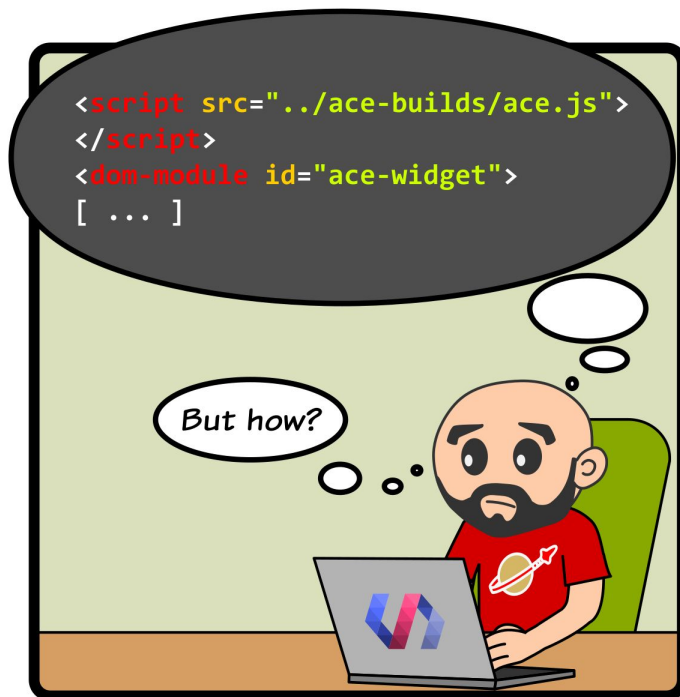
LostInBrittany/ace-widget

LostInBrittany/granite-qrcode-generator


```html
<granite-qrcode-generator
    data="https://github.com/lostinbrittany/granite-elements"
    mode="alphanumeric"
    auto></granite-qrcode-generator>
```

LostInBrittany/granite-qrcode-scanner

Scanned QR code: 97777782

Scanner status

Off ⬤ On

```
<granite-qrcode-scanner active></granite-qrcode-scanner>
```

A whole talk on that

https://noti.st/lostinbrittany/MoDsPr/but-there-is-no-web-component-for-that

Ecosystem

Alone we go faster, together we go farther...

At the beginning there was none...

Then we got a toolbox

And official catalogs of elements

App 0.10.1 — App Elements — App elements	**Fe** 1.0.10 — Iron Elements — Polymer core elements
Md 1.0.7 — Paper Elements — Material design elements	**Go** 1.1.1 — Google Web Components — Components for Google's APIs and services
Au 1.0.1 — Gold Elements — Ecommerce Elements	**Ne** 1.0.0 — Neon Elements — Animation and Special Effects
Pt 2.0.0 — Platinum Elements — Offline, push, and more	**Mo** 1.0.0 — Molecules — Wrappers for third-party libraries
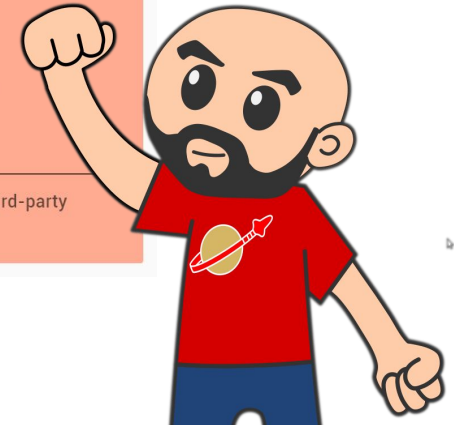
And a extensive 3rd party catalog

And full PWA support

One more thing...*

*Let's copy from the master

Polymer is not important
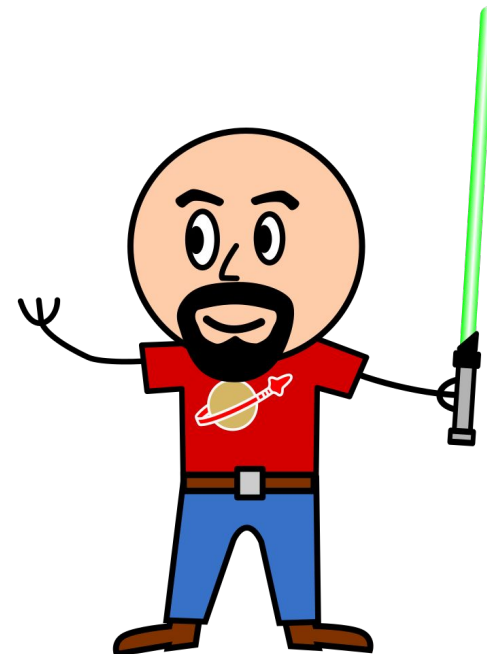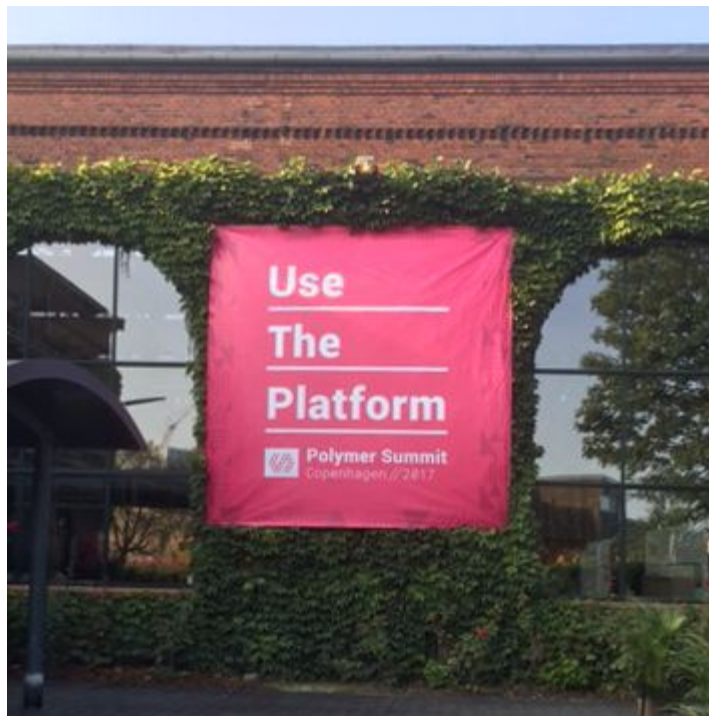

WebComponents ARE

Use the Platform, Luke...

WebComponents ARE native

Do you love your framework?

Oh yeah, we all do

Would you marry your framework?

Like until death…

How much does cost the divorce?

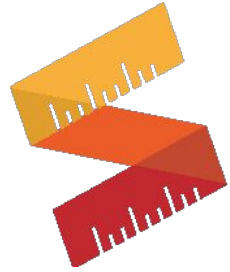Do you remember when you dropped AngularJS for Angular?

Reuse the bricks in your new framework

Lots of web components libraries

slim.js

STENCIL

For different need and sensibilities

And some good news

Angular Elements

Vue Web Component Wrapper

Frameworks begin to understand it

So for your next app

Choose a framework, no problem…

But please, help your future self

Use Web Components!

Thank you!