The power of progressive enhancement

Bristol WordPress - 04/12/2018

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Hi there, I'm Andy 👋

I'm an independent designer and front-end developer from the U.K.

I'm an accessibility and progressive enhancement super-fan 🚀

The main reason I care a lot about these things...

People

People are who we build for

Why progressive enhancement, though?

Let's start with something *very* important

Fast, reliable internet is a **LUXURY**, not the standard

Average internet speeds:
Developed Countries

🇮🇹 Italy: **9.2mbs**

🇫🇷 France: **10.8mbs**

🇦🇺 Australia: **11.1mbs**

Source: https://en.wikipedia.org/wiki/List_of_countries_by_Internet_connection_speeds

For context: **3G** is about **7mbs**

Surprised at how slow they are?

Average internet speeds:
Developing Countries

🇵🇾 Paraguay: **1.4mbs**

🇳🇬 Nigeria: **3.9mbs**

🇮🇳 India: **6.5mbs**

Source: https://en.wikipedia.org/wiki/List_of_countries_by_Internet_connection_speeds

The average page weight on desktop is **1526kb**

Source: https://httparchive.org/reports/page-weight

This isn't a talk about performance, though

Well, not directly

You can improve performance with progressive enhancement

Let's have a chat about devices

This might come as a surprise*

(it shouldn't)

Photo by Stephen Frank on Unsplash

Android has ~ **70%** market share

Source: http://gs.statcounter.com/os-market-share/mobile/europe

A lot of people browse the web without JavaScript

Not necessarily because "they don't like it"

Some reasons

There was a runtime error
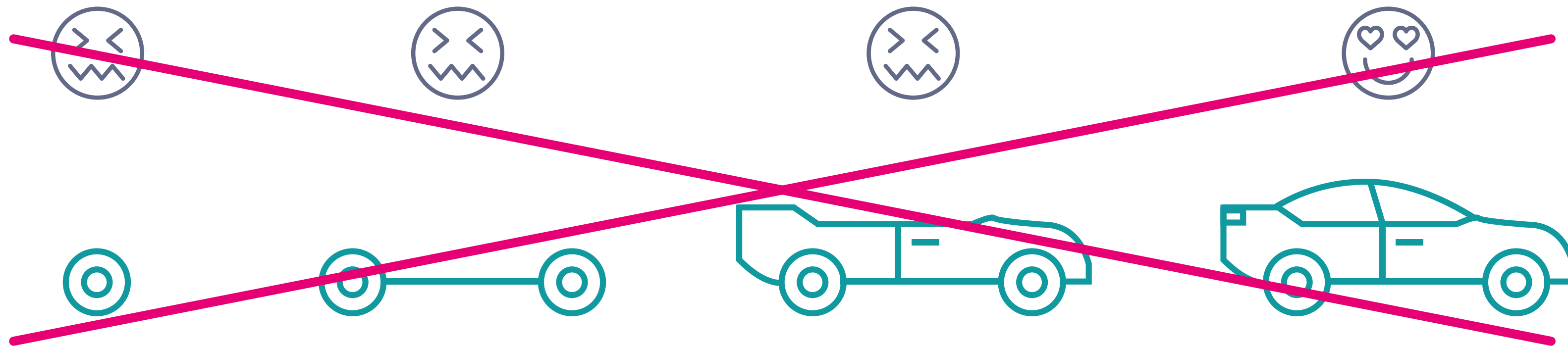
It's disabled as the ultimate Ad Blocker

They run Android on 2G with data-saver enabled

How does progressive enhancement work?

Minimum Viable Experience 🎉

What the heck is that?

Not like this

Like this!

Provide the most possible value
to a user with the least possible
technical capability

A quick example

Progressively enhanced toggle panel

By default, this is a heading and some paragraphs, but where web components are supported, a toggle panel is available.

A heading which toggle the collapsable panel

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The priority is the content, which is delivered immediately

The fancy interaction doesn't have to work for the user to get any value

The user will never know 🎉

Minimum Viable Experience 🎉

A common response as to why progressive enhancement can't be considered

"The users need the exact, same experience in every browser"

- Someone in marketing, probably

Another response

"I can't possibly do that with my complex JavaScript application"

- *Some tech bro, probably*

This one is probably true.

Progressive enhancement is a
mindset change

Progressive enhancement isn't necessarily *more work* and it certainly isn't a *non-JavaScript fallback*, it's a change in how we think about our projects. A complete mindset change is required here and it starts by remembering that you don't build websites for *yourself*, you build them for *others*.

                                                                    @hankchizljaw

Embrace the web platform ⛄

Simple setup = focus on what's important

⛔ Frameworks ⛔

⚖️ Frameworks ⚖️

Progressive enhancement + Frameworks = 💖?

What *free* tools are these?

🎉 Web Components and CSS 🎉

"But not all browsers support Web Components"

- *That person on Twitter*

No fallbacks, thanks

Let's look back at our example

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The Web Component enables our minimum viable experience

It works in IE8

Progressively enhanced toggle panel

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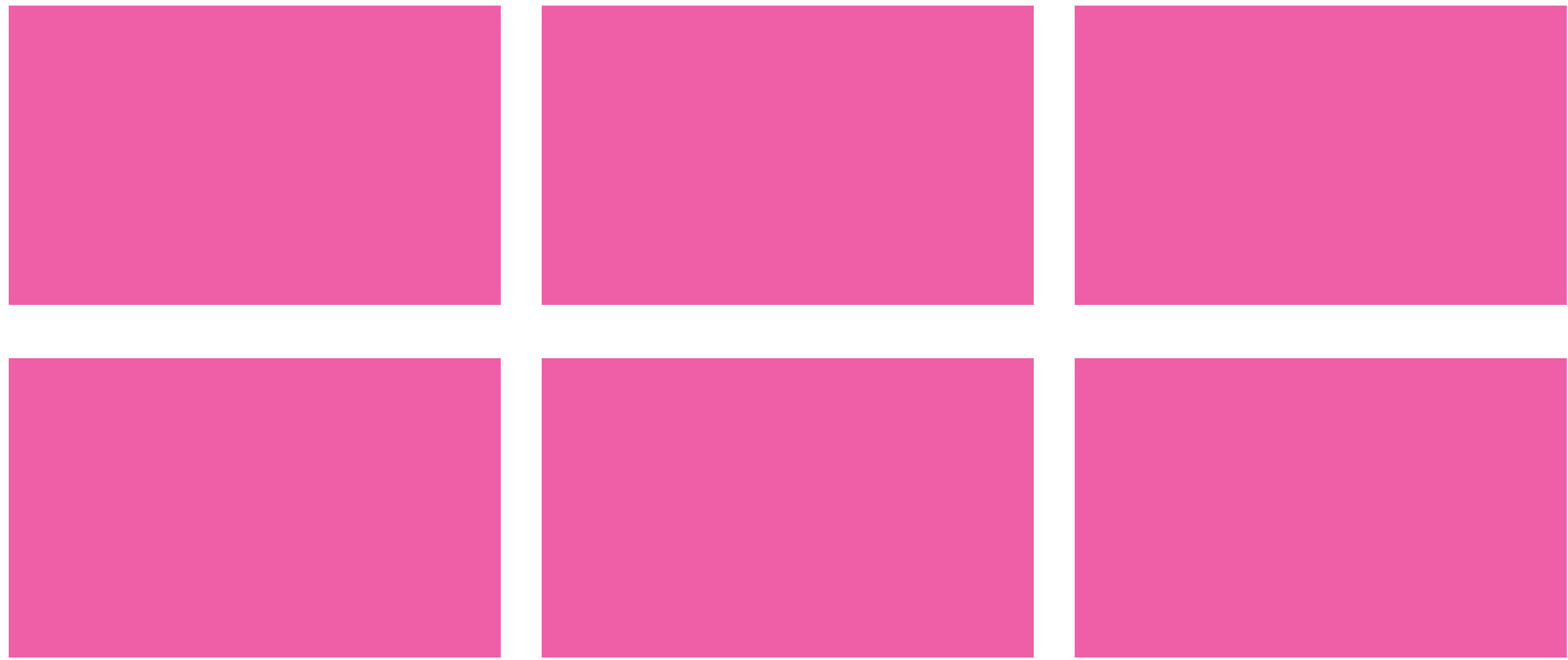
SWITCH

1440 x 798

Location

FEATURES

STOP

We're producing a resilient front-end by default 🎉

How about CSS?

Planning is your pal

What's the minimum viable experience?

Easy to consume.
Easy to navigate.

Minimum Viable Experience 🎉

Job done for the 16% of global users that don't have CSS Grid support.

Source: https://caniuse.com/#feat=css-grid

What about the other 84%?

```css
display: grid;
grid-template-columns: repeat(auto-fill, minmax(16.5rem, 1fr));
grid-gap: 1rem;
```

That's the full-blown experience

```css
.grid {
  display: grid;
  grid-template-columns: repeat(auto-fill, minmax(16.5rem, 1fr));
  grid-gap: 1rem;
}


.grid > * {
  max-width: 400px;
}


.grid > * + * {
  margin-top: 20px;
}
```

Let's put heavy duty CSS frameworks away

Progressive enhancement means tiny amounts of CSS

We should embrace that. All of us.

What else can we do?

Make progressive enhancement a part of every process in your team

- Planning
- UX
- Design
- Development
- Testing

"What is the minimum viable experience and how can we enhance it?"

Always remember, the priority is the **people** that use our websites.

- Not ourselves.
- Not our Twitter peers.
- Not Dribbble.

Developer convenience is important, only if it frees us up to focus on our users

Focus on tools, frameworks & hotness only: we fail to do our jobs

Tools are good, but happy users are better

A user doesn't care how your thing was built

Recap

People are our main priority

Ditch the fallbacks, hacks and heavy frameworks

Embrace a minimum viable experience

Create a resilient, user-focused experience

Sleep easy knowing your website
or app *just* works

Thank you 👋

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