

# AMPlifying the web

with Paul Bakaus







# Death to Bullshit

by [Brad Frost](#)

[Turn bullshit on?](#)

We're bombarded by more information than ever before. With the rise of all this information comes a rise of the amount of bullshit we're exposed to. *Death to Bullshit* is a rallying cry to rid the world of bullshit and demand experiences that respect people and their time.

## What is bullshit?

Bullshit lies on a spectrum somewhere between ineptitude and outright deception. Bullshit can be characterized in a few different ways:

- Superfluous or unnecessary
- Cluttered, clunky, or needlessly complex
- Intentionally deceptive or insincere

Popups, jargon, junk mail, anti-patterns, sensationalism, begging for likes, tracking scripts, marketing spam, [dark patterns](#), unskippable ads, clickbait, linkbait, listicles, seizure-inducing banners, captchas, QR codes, barely-visible unsubscribe buttons, 24-hour news networks, carousels, auto-playing audio, bloatware, sudden redirects to the App

# A real page I recently visited:

> 1000 requests

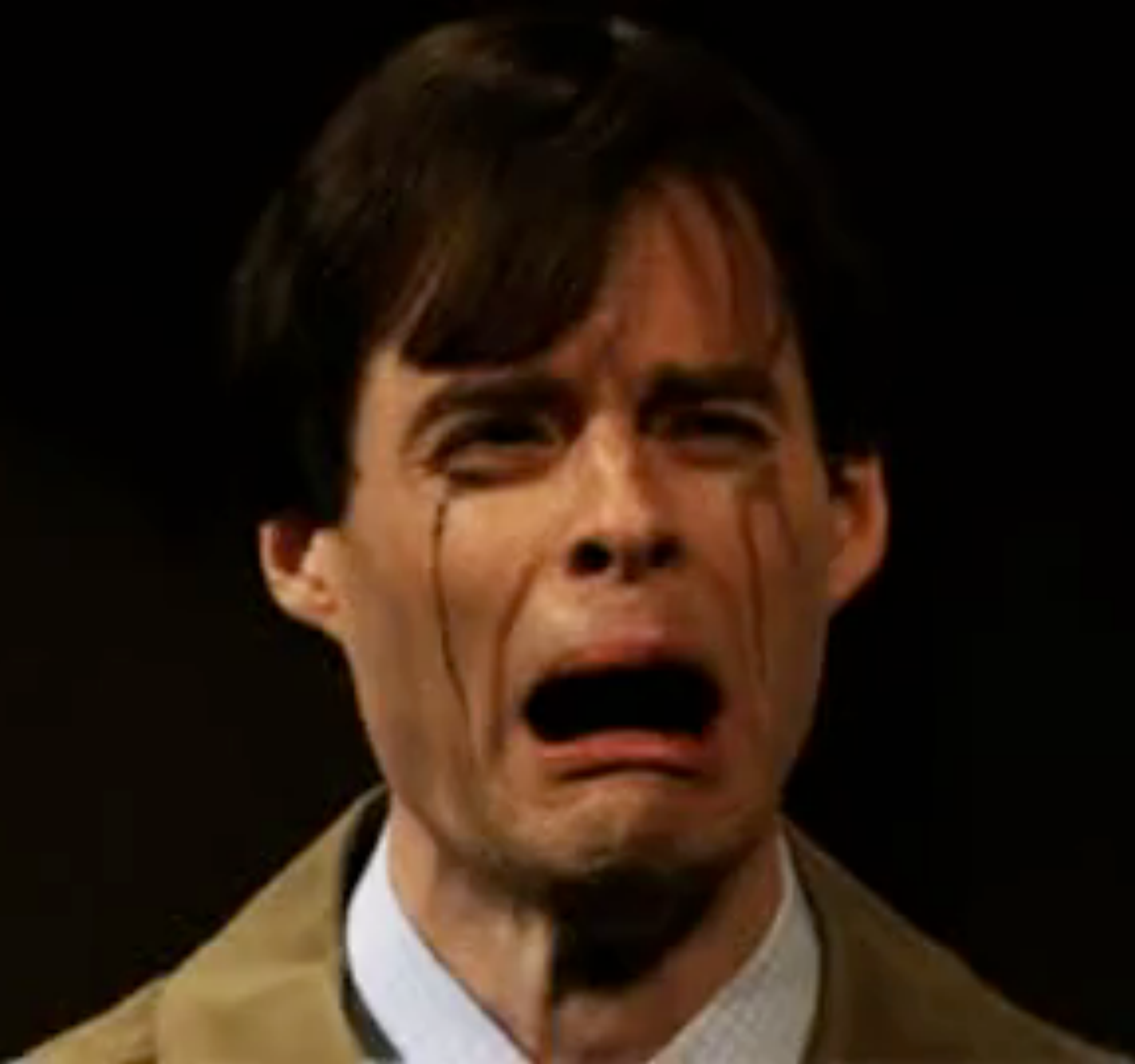
5+ ad networks

10+ beacons

> 20 sec load time

10+ analytics libraries







Why?!



Manager

I'LL NEED THAT  
NEW BEACON  
INSTALLED!

Developer

ok...





- Monetization
- User acquisition

vs

User Experience



What are our current solutions?





Aggressive ad, analytics and  
beacon blockers





## Walled content distribution platforms





Custom, native apps



These don't seem like legit solutions.



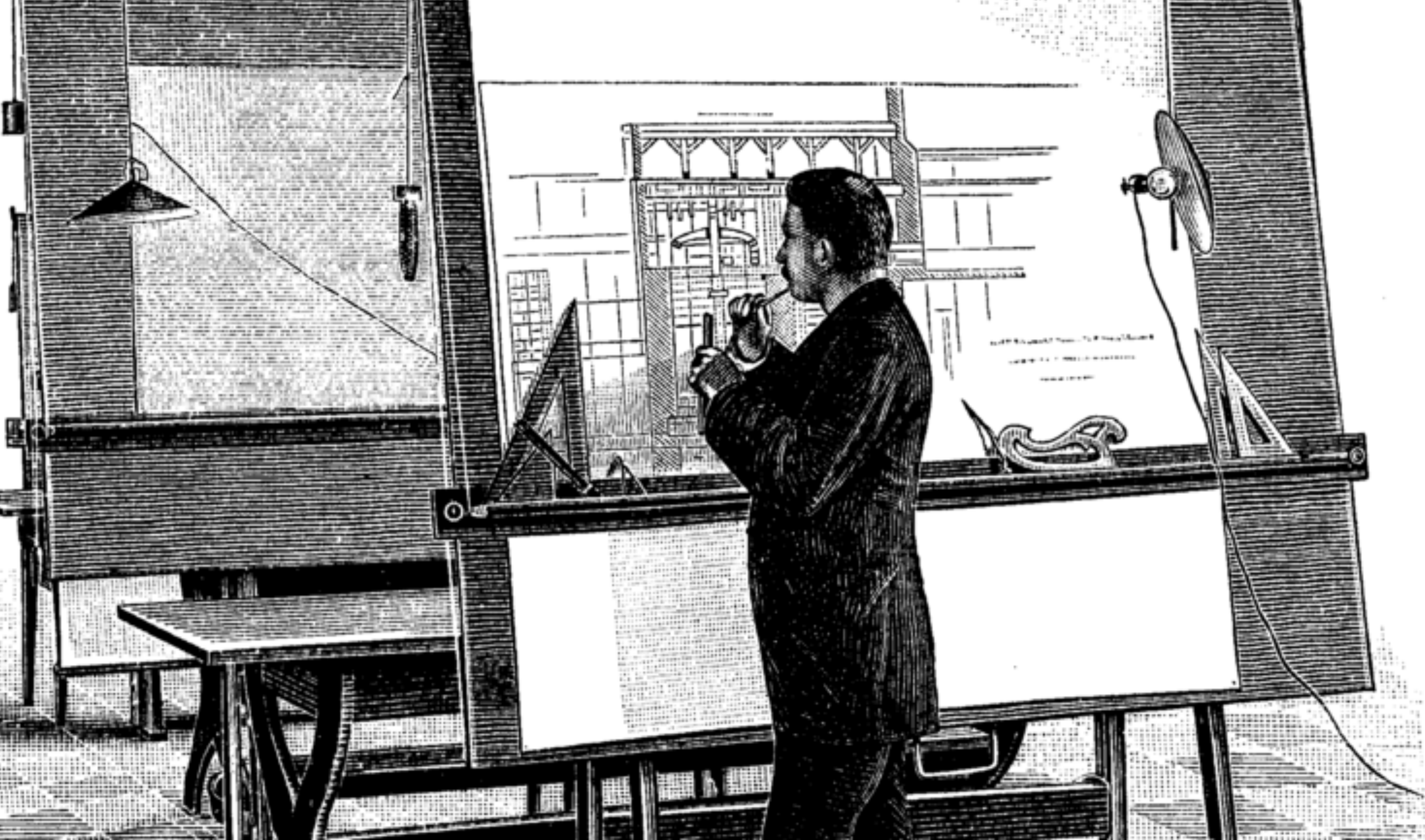


#perfmatters

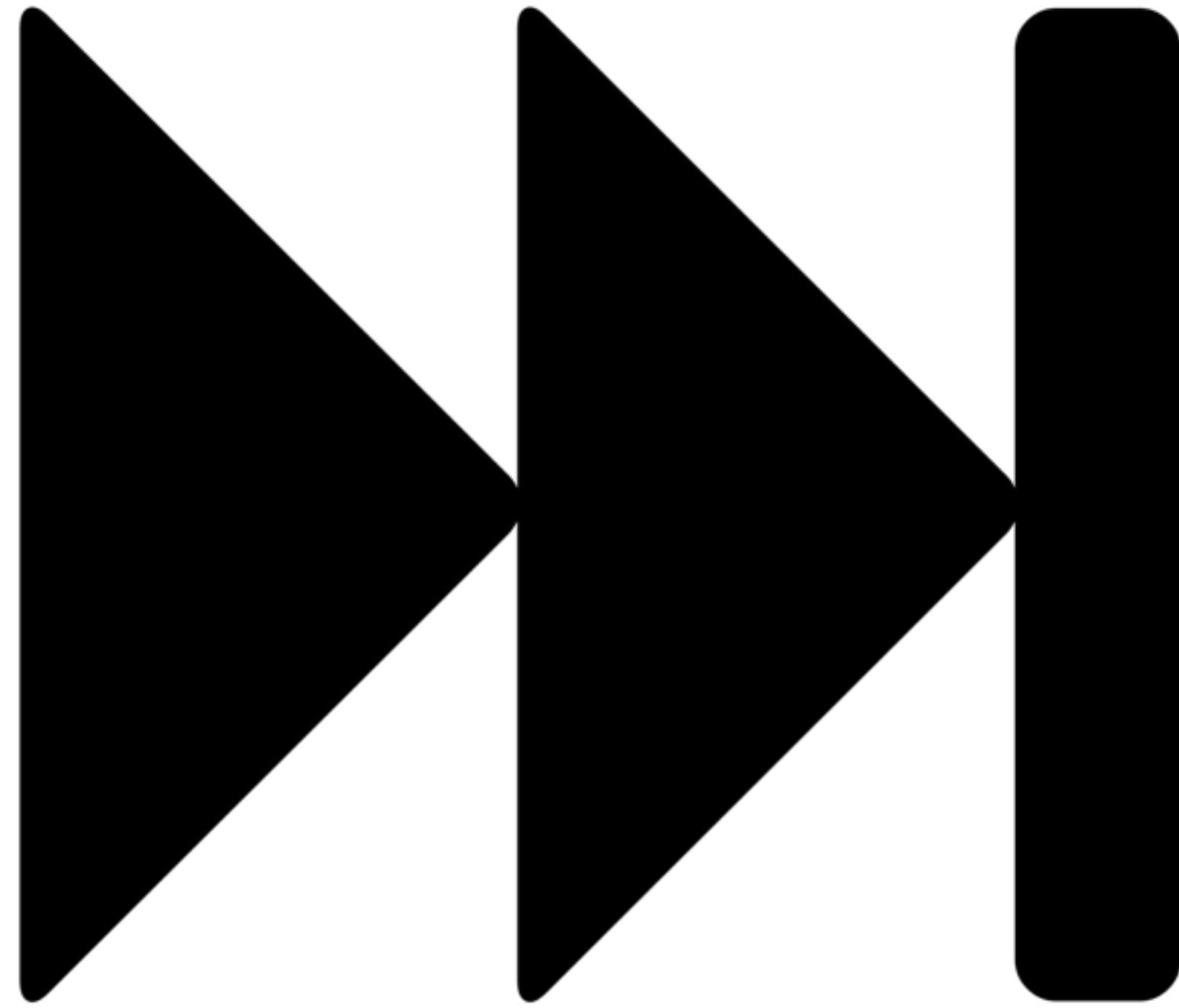












It needs to make websites fast,  
no compromises.

### Verification



Developer

Verification Agent

### Validation



Functional Expert

Validation Agent

### Accreditation



Requester/User

Accreditation Agent

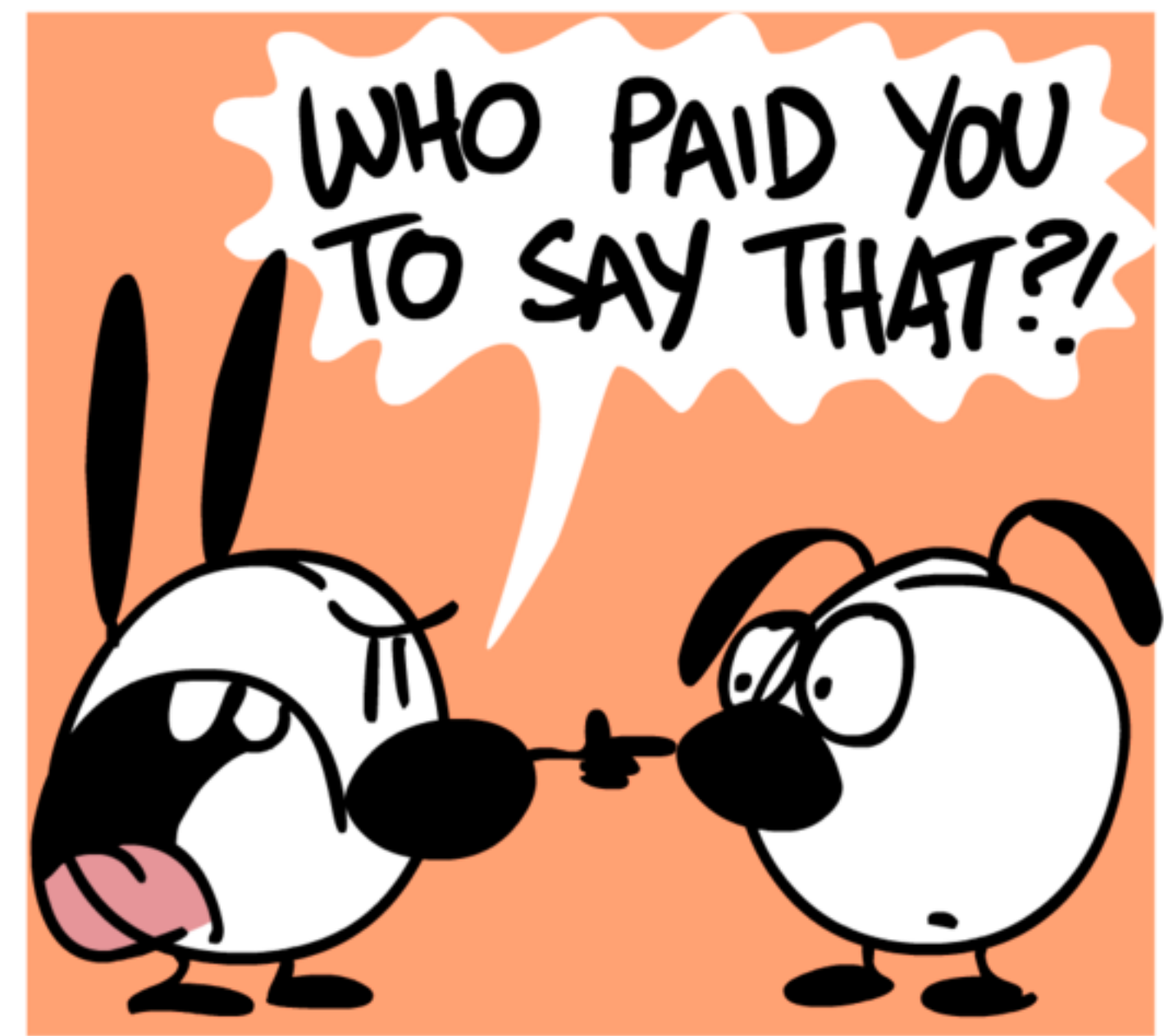
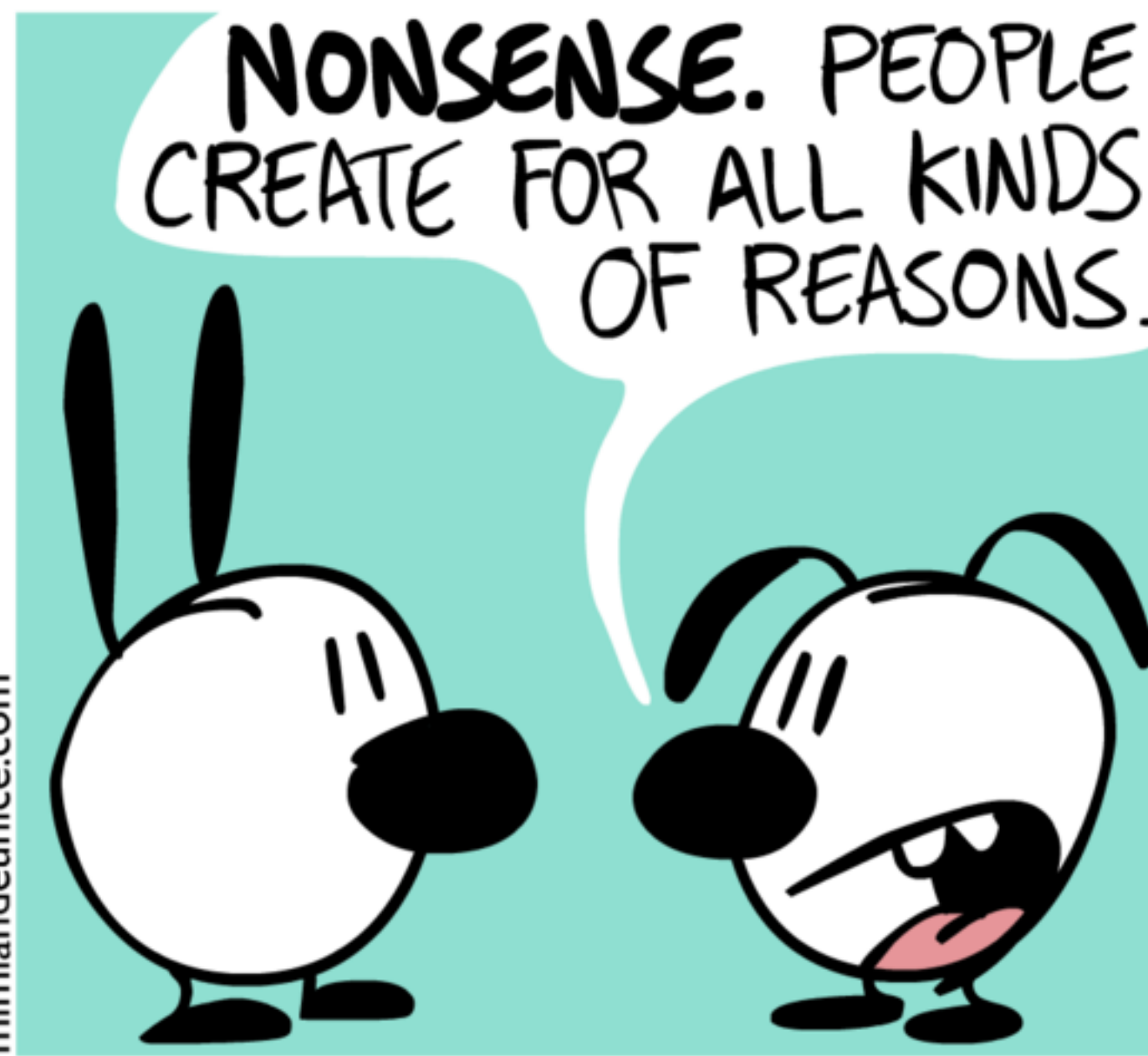
As design matures, re-examine basic assumptions.

# It needs to be validatable.





It needs to be easy to  
implement.



It needs strong incentives.





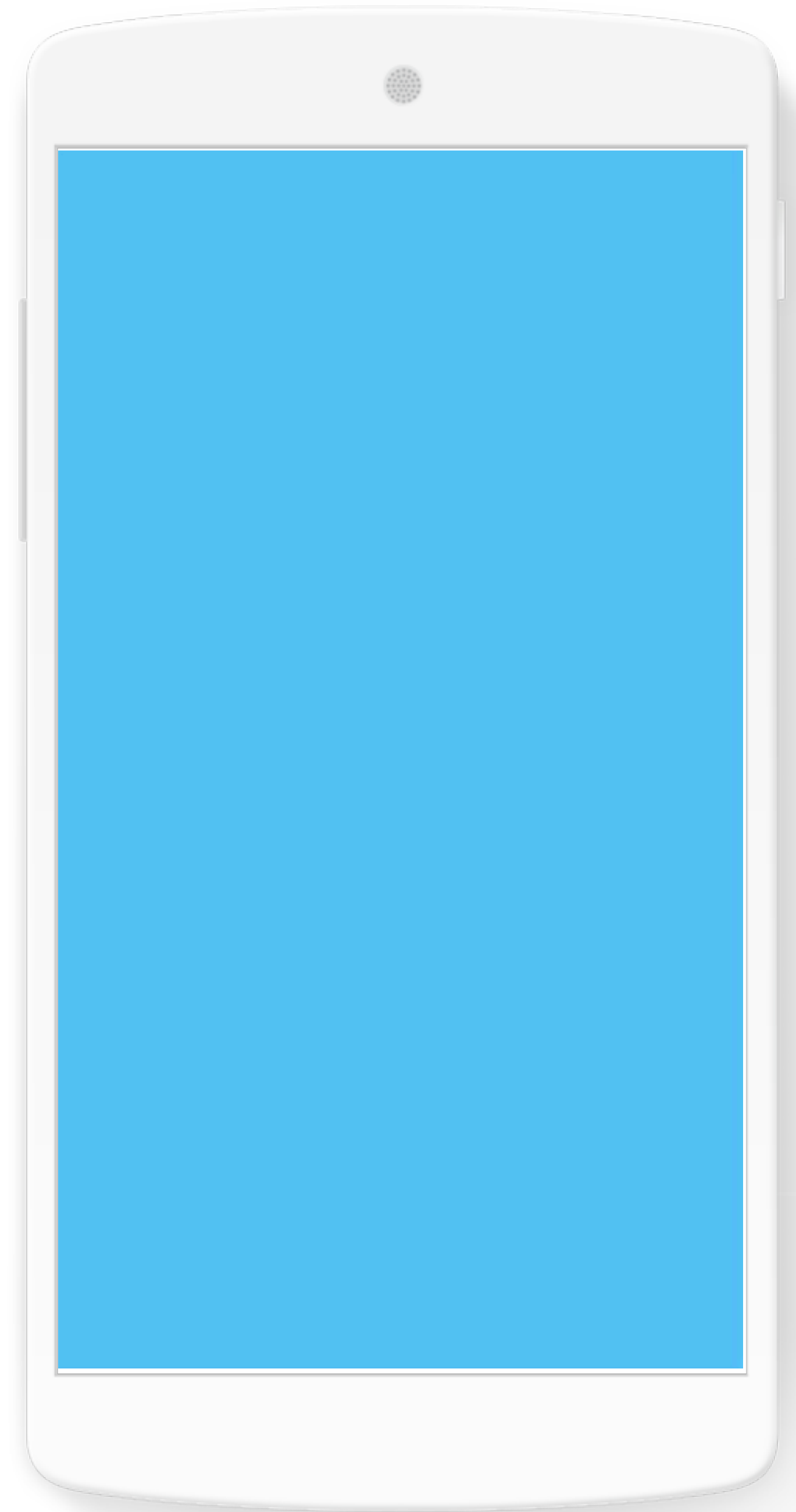
**It needs to embrace the open web, not replace it.**







Meet AMP.





# To users

- Content is king
- User Experience is queen

# To publishers

- AMP is guaranteed to perform well
- Well supported by platforms





**Proof of concept**



WEB

IMAGES



Sign in

Google



# AMP Demo in Google Search

[g.co/ampdemo](https://g.co/ampdemo)





So how does it work?



# AMP in Action



**AMP HTML**

**AMP JS**

**AMP CDN**



**AMP HTML**

```
<!doctype html>
<html >
  <head>
    <meta charset="utf-8">
    <title>Sample document</title>
    <link rel="canonical" href="./regular-html-version.html">
    <meta name="viewport" content="width=device-width,minimum-scale=1,initial-scale=1">
    <style amp-custom>
      h1 {color: red}
    </style>
    <script type="application/ld+json">
    {
      "@context": "http://schema.org",
      "@type": "NewsArticle",
      "headline": "Article headline",
      "image": [
        "thumbnail1.jpg"
      ],
      "datePublished": "2015-02-05T08:00:00+08:00"
    }
    </script>
    <script async custom-element="amp-carousel" src="https://cdn.ampproject.org/v0/amp-carousel-0.1.js">
    <style>body {opacity: 0}</style><noscript><style>body {opacity: 1}</style></noscript>
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<script type="application/ld+json" async src="https://
```

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**</style>**



```
</head>
<body>
  <h1>Sample document</h1>
  <p>
    Some text
    <amp;img src=sample.jpg width=300 height=300></amp;img>
  </p>
  <amp;ad width=300 height=250
    type="a9"
    data-aax_size="300x250"
    data-aax_pubname="test123"
    data-aax_src="302">
  </amp;ad>
</body>
</html>
```

AMP's best practises





1

Goodbye document.write()  
*Async to the max*



2

Batched DOM access  
*(aka fastdom)*





3

DNS prefetching/preconnect

```
class AmpTwitter extends AMP.BaseElement {
  /** @override */
  createdCallback() {
    // This domain serves the actual tweets as JSONP.
    this.preconnect.url('https://syndication.twitter.com');
    // Hosts the script that renders tweets.
    this.preconnect.url('https://platform.twitter.com');
    this.preconnect.threePFrame();
  }

  /** @override */
  isLayoutSupported(layout) {
    return isLayoutSizeDefined(layout);
  }
}
```





4

Minimal style recalculations



5

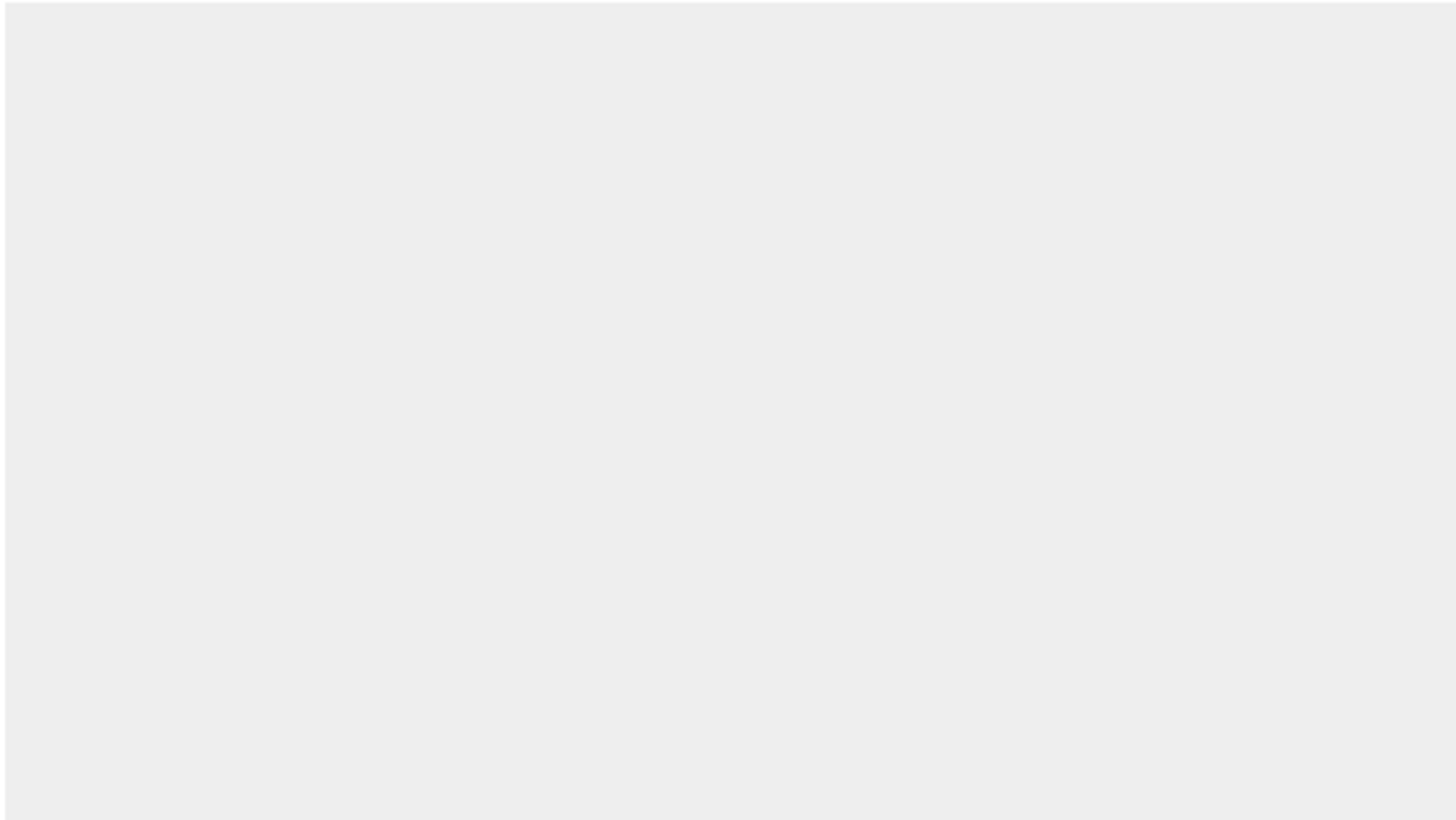
Download-independent sizing  
*for minimal relayouts*



# A widening gap between Clinton and Obama

By Anthony Zurcher  
North America reporter

12 October 2015



As Democratic presidential hopefuls prepare to face off in their first debate, front-runner Hillary Clinton is increasingly trying to contrast herself with a man who won't be on the stage on Tuesday night - President Barack Obama.

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6

Small inline CSS  
*no additional requests*





7

Smart content prioritization  
*only load what's needed*

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Above the  
fold

**As Democratic presidential hopefuls prepare to face off in their first debate, front-runner Hillary Clinton is increasingly trying to contrast herself with a man who won't be on the stage on Tuesday night - President Barack Obama.**

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8

Fast animations

*GPU-accelerated properties only*



9

Limited by design  
*Less overall madness*





No user-authored JS

Allowing arbitrary JS in the page allows for the introduction of non-detectable bottlenecks, so it's disabled for now.



Subset of tags and selectors

Prohibited: Applets, Objects, Forms, Ext stylesheets

Only basic CSS selectors



A few others

No scrolling elements on page

No stylesheets larger than 50k







10

# Built-in sugar

*Advanced components*

# Built-in sugar

## *Advanced components*

`<amp;img>` replaces `<img>`:  
Full srcset support, height/  
width mandatory

```
<amp;img  
  media="(min-width: 650px)"  
  id="img6" src="fancy_cat.img"  
  width=466  
  height=355  
  layout="responsive">  
</amp;img>
```



# Built-in sugar

## *Advanced components*

`<amp;ad>` offers a lazy-loaded, accelerated approach to ad loading.

```
<amp;ad width=300 height=250  
  type="a9"  
  data-aax_size="300x250"  
  data-aax_pubname="test123"  
  data-aax_src="302">  
</amp;ad>
```

# Built-in sugar

## *Advanced components*

`<amp;carousel>` is a higher level UI component that shows a carousel of content.

```
<amp;carousel width=300 height=400>  
  <amp;img src="my-img1.png"  
width=300 height=400></amp;img>  
  <amp;img src="my-img2.png"  
width=300 height=400></amp;img>  
  <amp;img src="my-img3.png"  
width=300 height=400></amp;img>  
</amp;carousel>
```



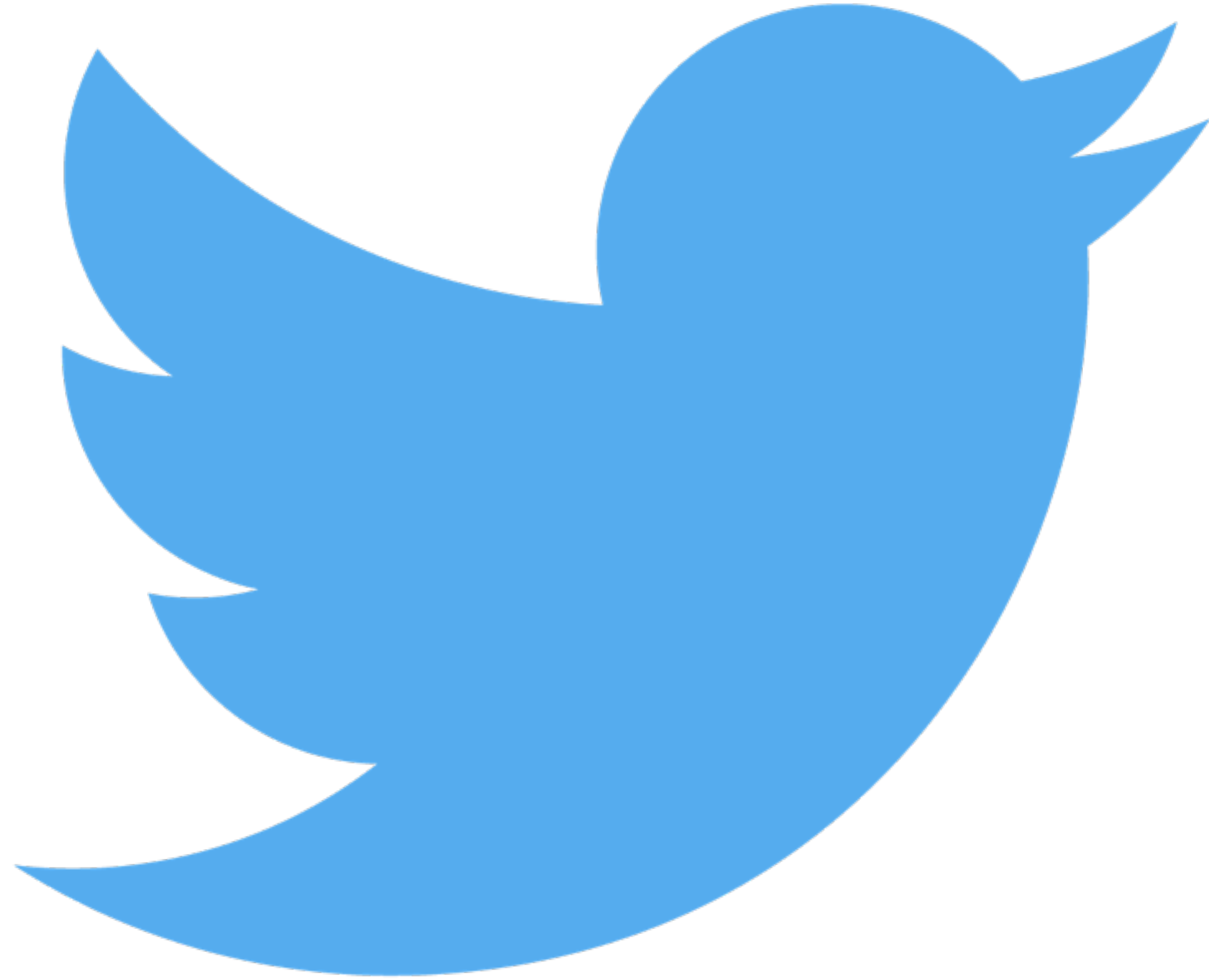
# Built-in sugar

## *Advanced components*

`<amp;lightbox>` offers a modal lightbox and can be triggered with the “on” attribute.

```
<button on="tap:my-lightbox">Open  
lightbox</button>
```

```
<amp;lightbox id="my-lightbox"  
layout="nodisplay">  
  <div class="lightbox">  
    <amp;img src="my-full-image.jpg"  
width=300 height=800>  
    <div close>Close</div>  
  </div>  
</amp;lightbox>
```



# Built-in sugar

## *Advanced components*

`<amp;twitter>` shows an embedded tweet.

```
<amp;twitter width=486 height=657  
  layout="responsive"  
  data-tweetid="585110598171631616"  
  data-cards="hidden">
```



What's next?

Want a fast mobile web as much as we do?

**Come help us.**

<https://github.com/ampproject/amphtml>

We're all in this together.

CDNs

CMS

Analytics

Ads

Publishers

Platforms

Developers



If you've got an app displaying third-party web content, prefer **AMP**.

If you're a web developer looking to share fast content, use **AMP** to make mobile platform experiences faster.







# Thank you!



+PaulBakaus  
@pbakaus