



CLICK THE
DAMNED BUTTON!



JAVASCRIPT IS COMING TO EAT YOU



Citizen Tim

Electric Citizen | June 2019





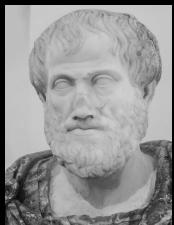
JAVASCRIPT IS COMING TO EAT YOU



Citizen Tim

Electric Citizen | June 2019





W51H

HOW

How do I start?



WHO

Does this affect me?

WHEN

Now?

WHAT

What is it??

WHERE

What kinds of sites?

WHY

What's the point?

HOW WE BUILD THE WEB



1994 to 2004

The Renaissance

HTML, CSS, Javascript, CGI Scripts, ASP Classic, PHP, Custom CMS, Open Source CMS, Flash

HOW WE BUILD THE WEB



2004 to 2014

The Industrial Revolution

Drupal and WordPress, LAMP, Commercial CMS, JQuery/Ajax,
SaaS, Cloud



1994 to 2004

The Renaissance

HTML, CSS, Javascript, CGI Scripts, ASP Classic, PHP, Custom CMS, Open Source CMS, Flash

HOW WE BUILD THE WEB



1994 to 2004 The Renaissance

HTML, CSS, CGI Scripts, Javascript, ASP Classic, PHP, Custom CMS, Open source CMS, Flash



2004 to 2014 The Industrial Revolution

Drupal and WordPress, LAMP, Commercial CMS, JQuery/Ajax, SaaS, Cloud



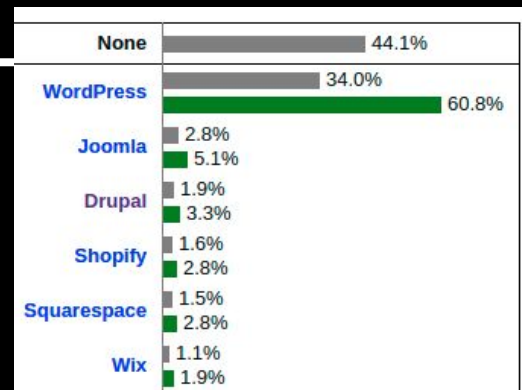
2014 to Today The Technological Revolution

React/Angular, Decoupled Drupal, APIs, Node.js, MEAN, JAMStack, Serverless

Most of us are living in 2014.

And it is not a bad place to be.





-
- We enjoy a billion dollar global marketplace.
 - Innovation continues at great speed.
 - Drupal or WordPress are still the obvious choices for MOST websites.
 - None of this will suddenly disappear.
-



Jesus Manuel Olivas Retweeted



Nader Dabit

@dabit3

There is a massive paradigm shift happening right now. The front & back end are rapidly moving closer & closer together, assisted by the rise of managed services & serverless tech.

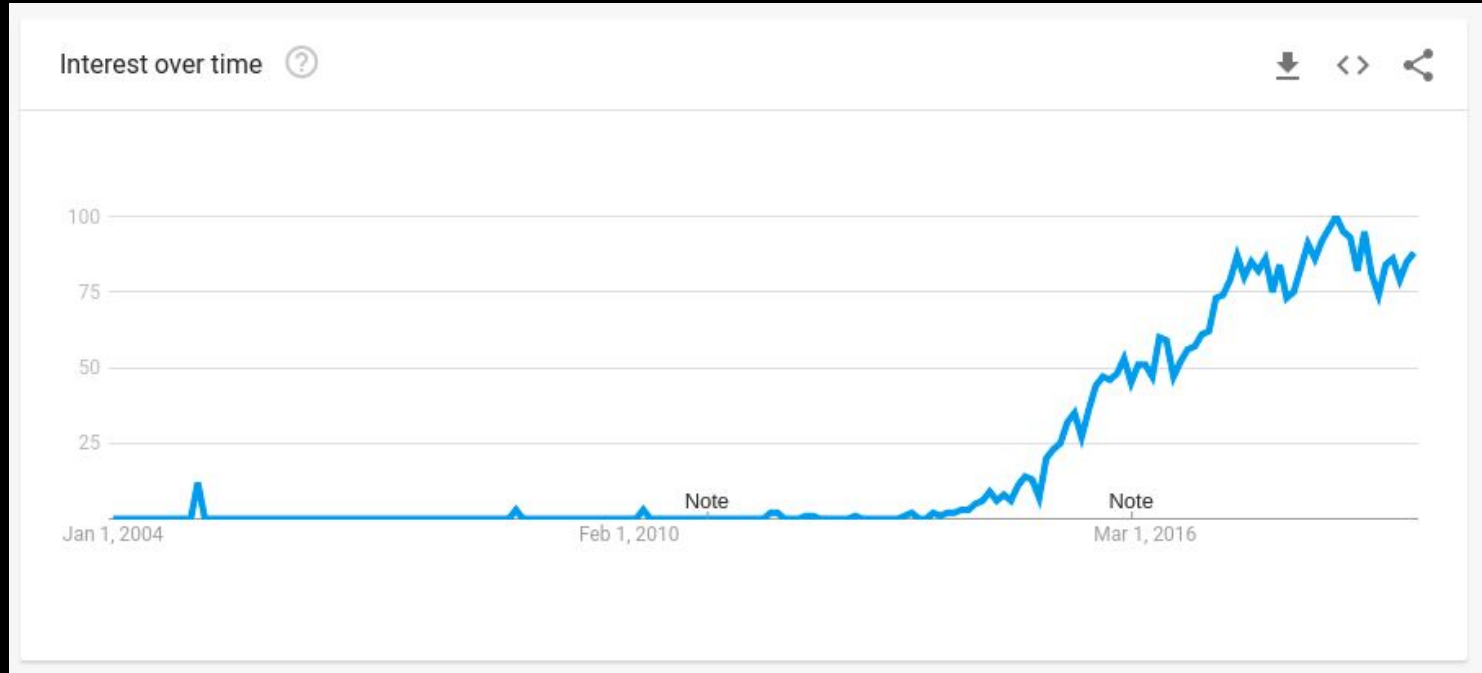
Those who acknowledge & take advantage of this will be the biggest winners in the coming years.

11:21 AM · 21 Apr 19 · [Twitter Web Client](#)

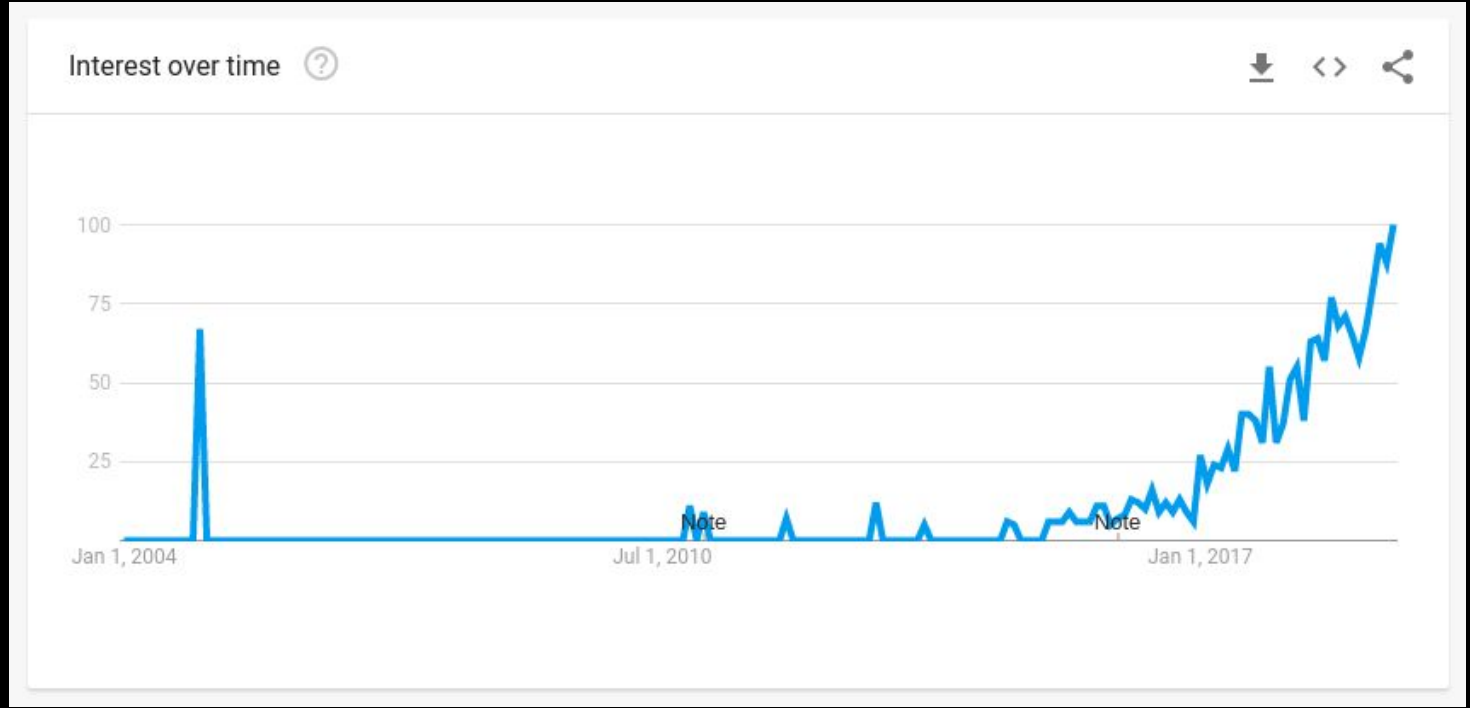
129 Retweets **464** Likes



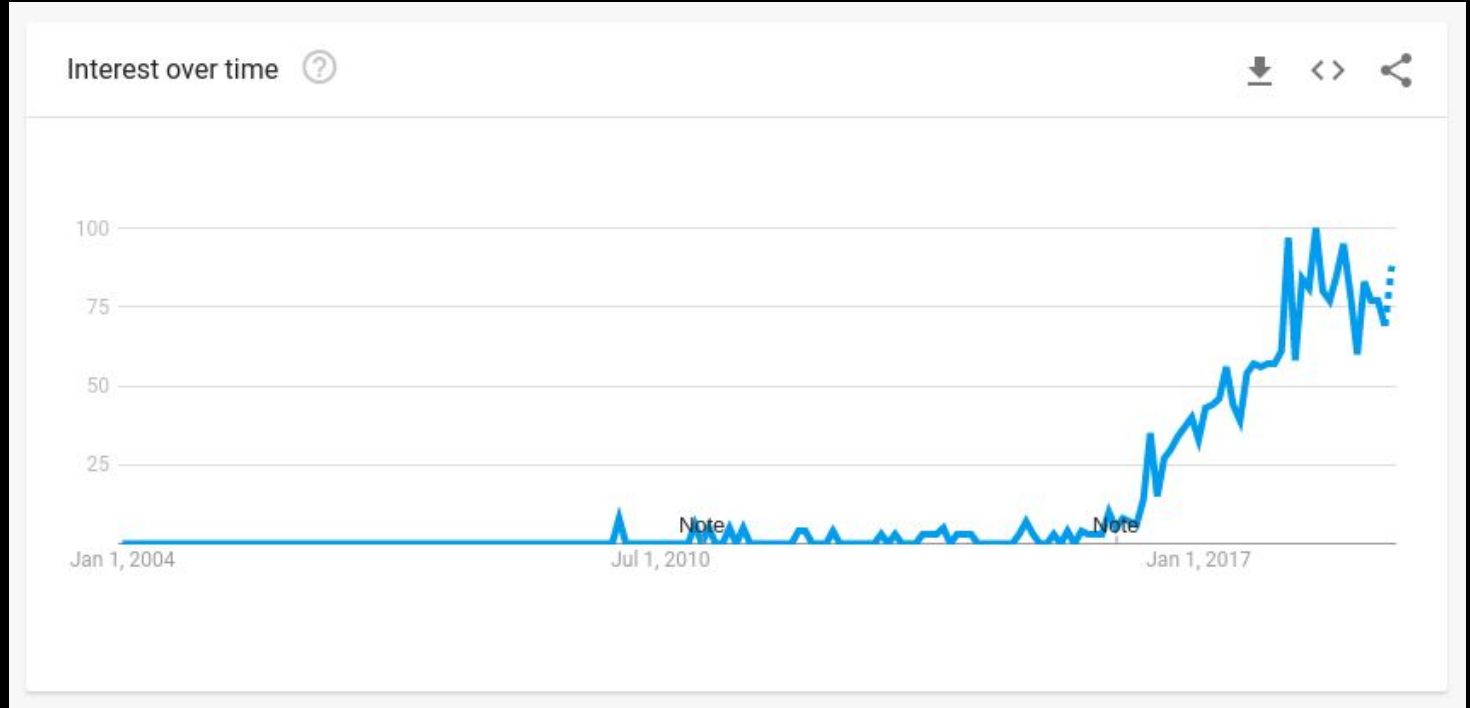
REACT & ANGULAR | 2004 to present



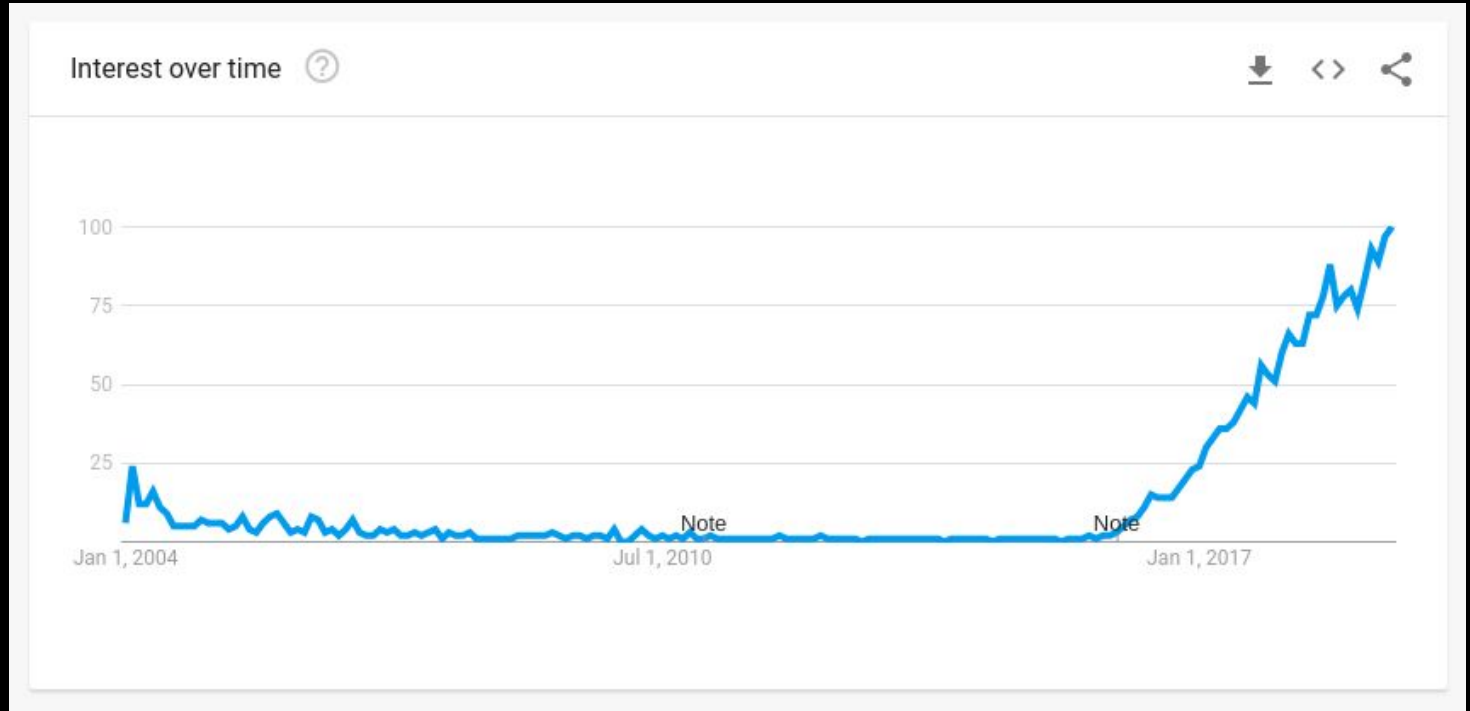
HEADLESS CMS | 2004 to present



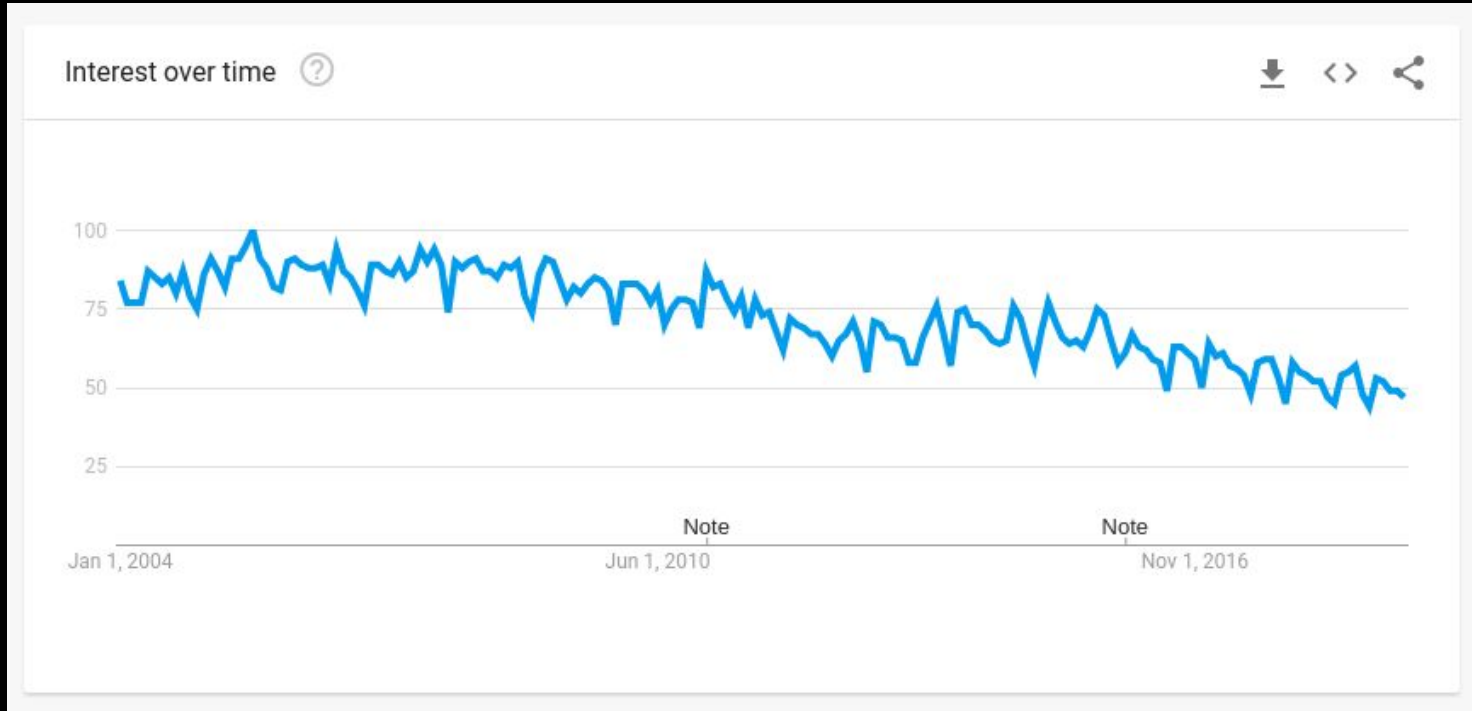
PROGRESSIVE WEB APP | 2004 to present



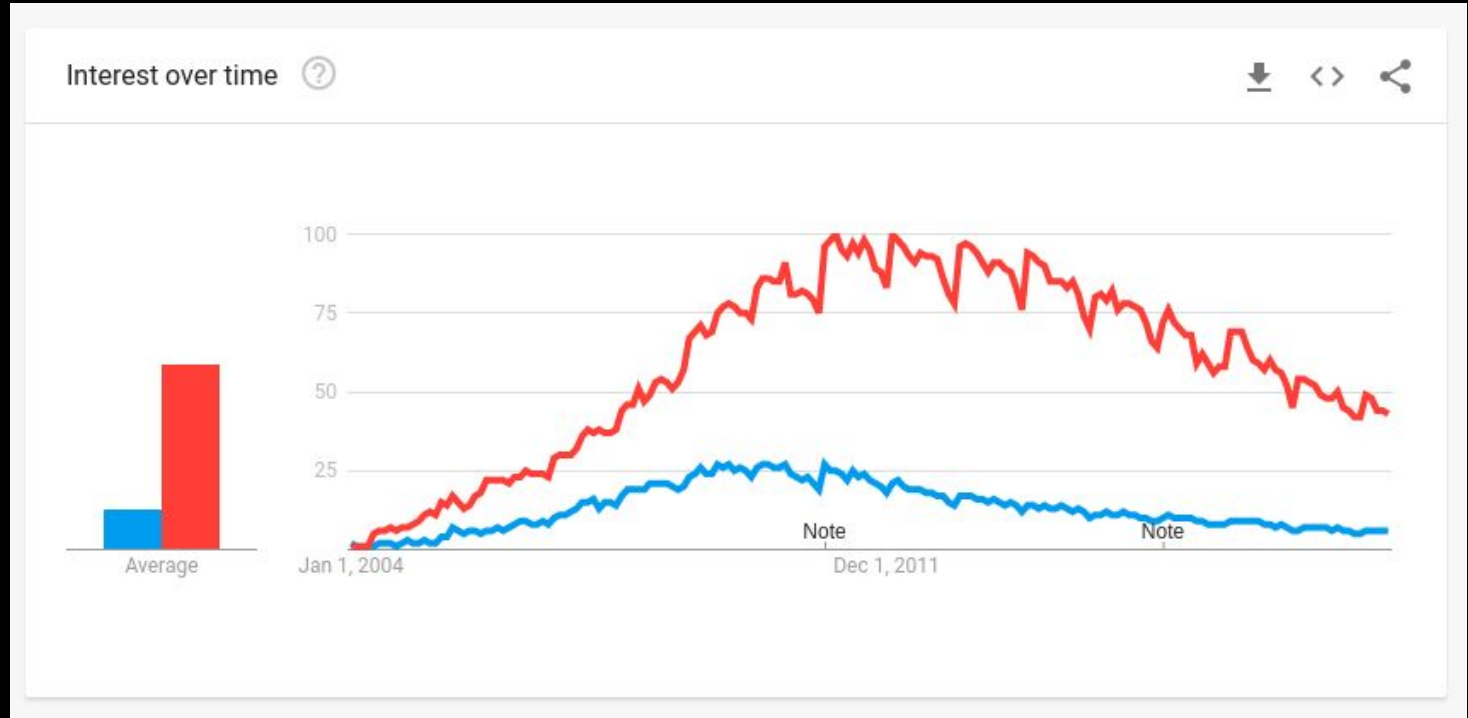
SERVERLESS | 2004 to present



CMS | 2004 to present



DRUPAL & WORDPRESS | 2004 to present





“We would prefer Python, Ruby, and/or Javascript based applications. Also something like SOLR that can handle searching large data sets. **We would steer clear of Drupal.**”

— 2014

REASON ONE

**Our tools and techniques
WORK and they keep
getting better.**



— 2014

REASON TWO

**This new stuff is COMPLICATED,
and super hard to do correctly.**



— 2014

REASON THREE

**We LOSE 80% of Drupal or
WordPress goodness.**



— 2014

REASON FOUR

This stuff is EXPENSIVE

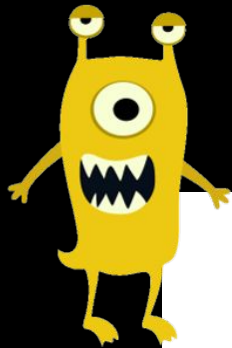
(and clients can barely
afford Pantheon.)



**These are all perfectly
valid, reasonable, and
REAL reasons.**



And yet.



Adobe Dreamweaver

FrontPage

0.4%

0.7%

0.3%

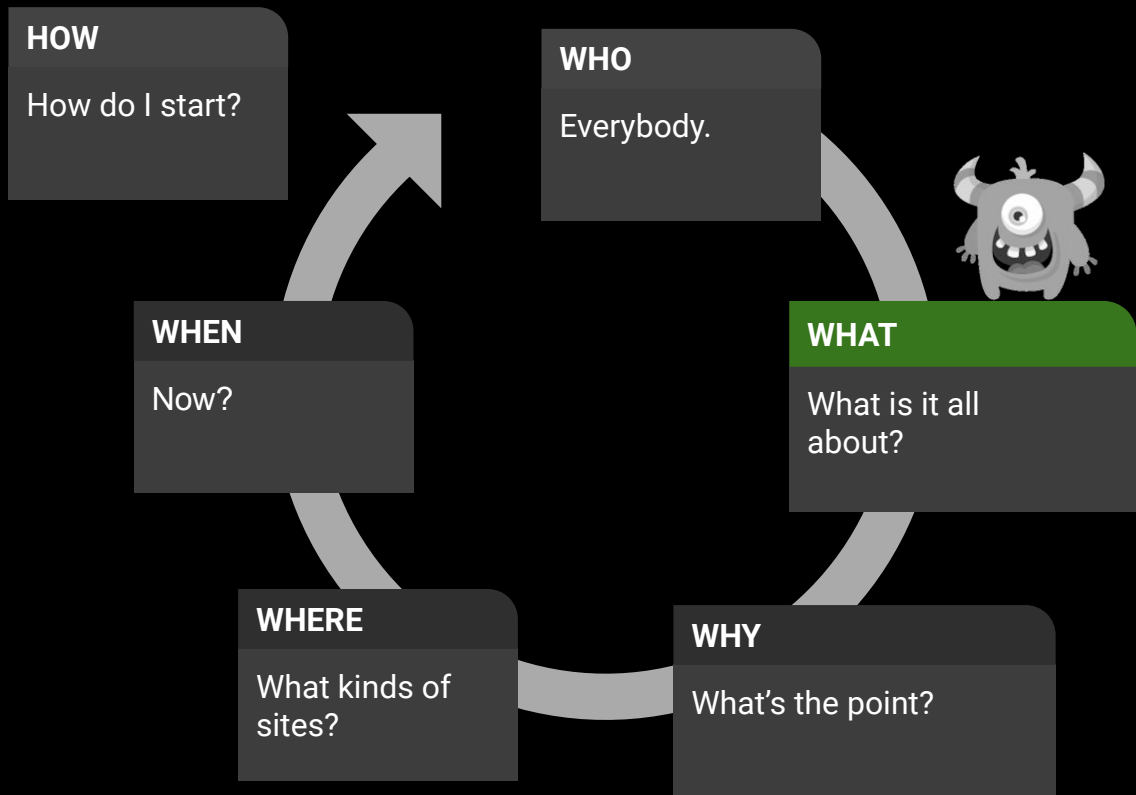
0.5%

OPTION A
Stay the course.

OPTION B
Adapt.



W51H





MONOLITHIC CMS

VS

MANAGED SERVICES

MODULAR SYSTEMS

MICROSERVICES

CONTENT MESH



Content Management

Landing pages, news, events



Custom applications

Databases, tools



Integrations

APIs, migrations, importers, exporters



Membership/CiviCRM

Customizations, roles, reporting



MONOLITHIC CMS



Web server
Database server
CDN



Adobe Experience Manager



sitecore



WORDPRESS



Drupal



SQUARESPACE



WIX



shopify



Frontend website!
HTML, JS, Twig



Customization

Customize all the things



Commerce

Sell, sell, sell!



Search

Search API, Solr



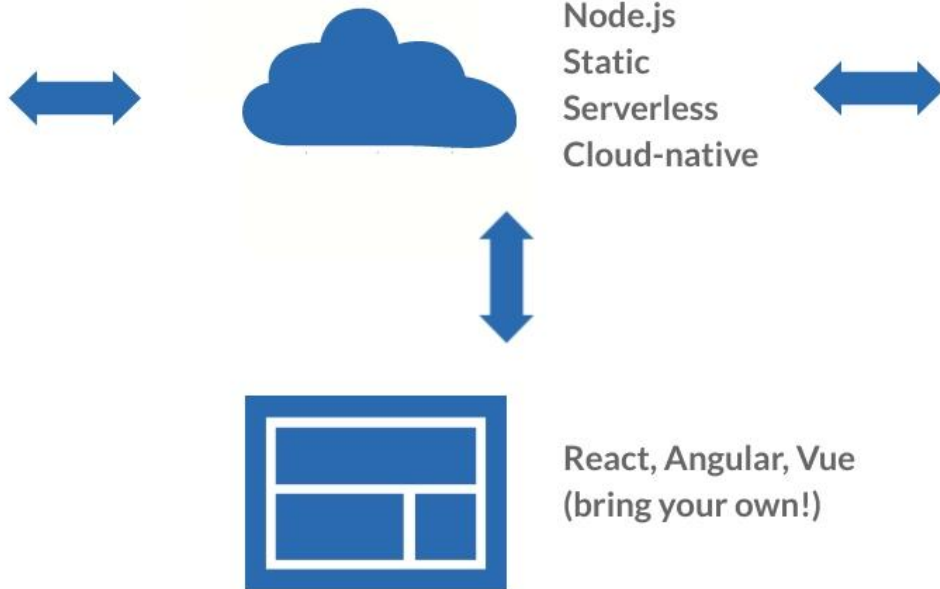
Forums and galleries oh my

All the things!



MANAGED SERVICES

aka the "content mesh"



Static files
Markdown



Custom APIs
SaaS APIs



Custom DBs
Mongo/SQLite

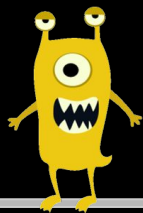


JSON
XML/CSV

Node.js
Static
Serverless
Cloud-native

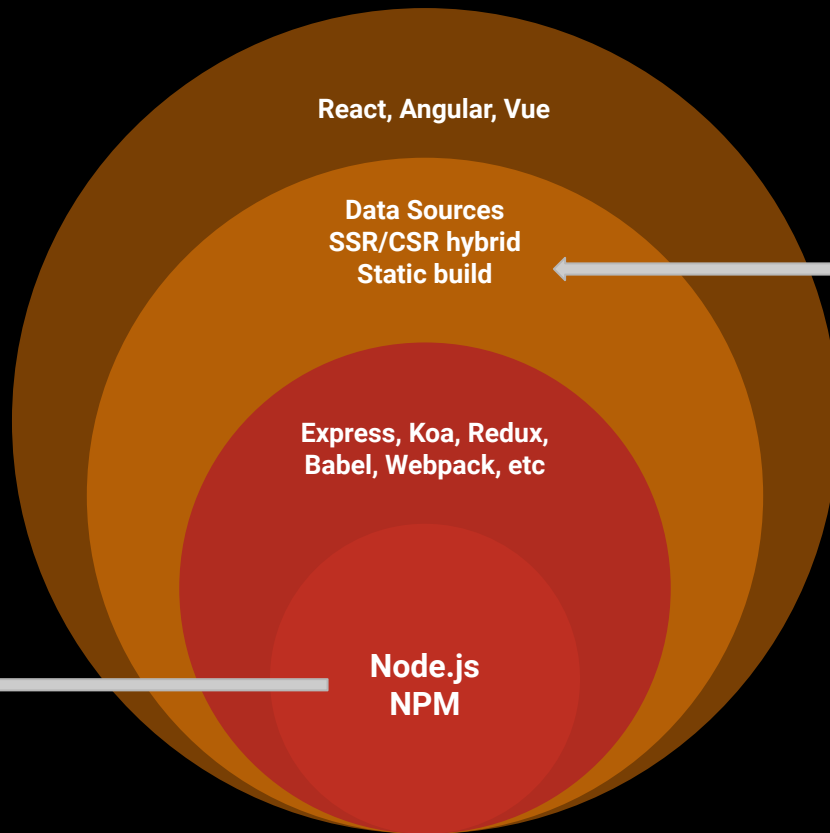
React, Angular, Vue
(bring your own!)






JavaScript
TypeScript
ECMAScript/ES


NODE
SERVER

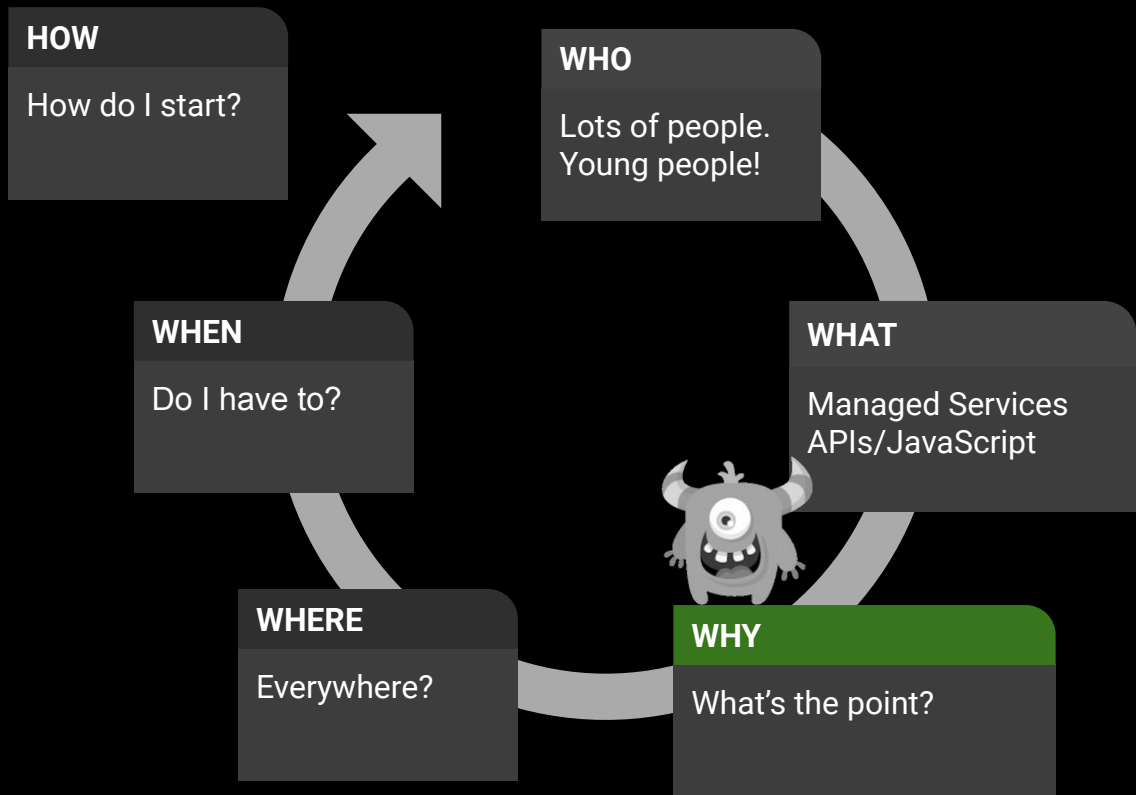


CaaS
Drupal/WordPress
Managed Services (APIs)
XML/JSON/CSV
Microservices

  
DB DB DB

  
SERVER SERVER SERVER

W51H



WHY??



1

SPEED

MONOLITH

NODE



- Code splitting, critical rendering
- SSR/Static Rendering



2

FLEXIBILITY



- Data agnostic
- Right tool for right job



3

USER EXPERIENCE



- Faster UX
- Better UX



4

DEVELOPER
EXPERIENCE



- One stack rules all
- NPM/Hot reload/Components



5

COST



- Development/Support
- Infrastructure

W51H

HOW

How do I start?

WHO

Lots of people.
Young people!

WHEN

Do I have to?

WHAT

Managed Services
APIs/JavaScript

WHERE

Everywhere?

WHY

Better, smarter, faster.



— WHERE? —

WEBSITES

Simple websites
Average websites
Complex websites



WEB APPS

Facebook, Airbnb,
Instagram, Netflix,
Countless others



MOBILE APPS

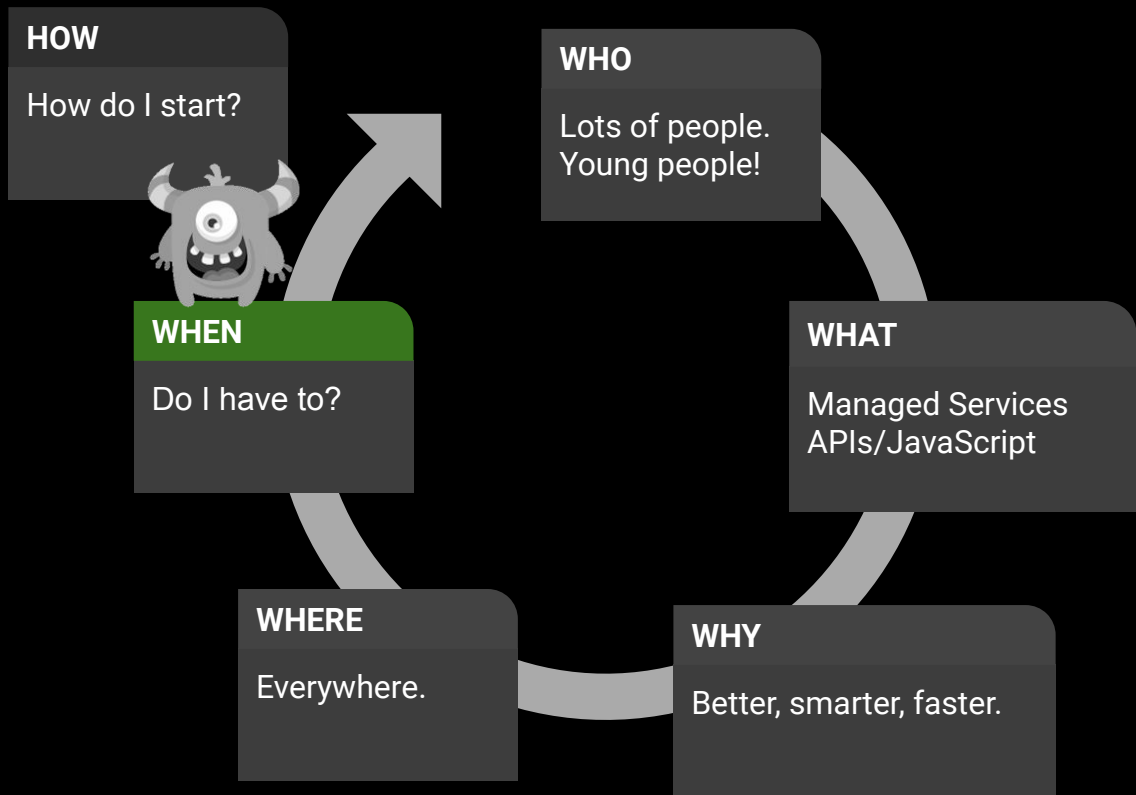
Instagram/FB
Bloomberg
Walmart etc.

**All websites are applications.
All applications are websites.**

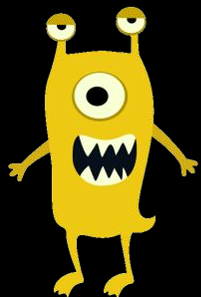


**Don't forget the
Internet of Things!**

W51H



— WHEN?



HOW WE BUILD THE WEB



2014 to Today

Technological Revolution: Early days

React/Angular, Decoupled Drupal, APIs, Node.js, MEAN, JAMStack, Serverless



Today to 2024

Technological Revolution: Liftoff

Better approaches, better tooling, better infrastructure
Easier paths forward



2024 to 2034

Technological Revolution: Natural Order

Continuous improvements
Iterations



HOW

How do I start?

WHO

Lots of people.
Young people!

WHAT

Managed Services
APIs/JavaScript

WHY

Better, smarter, faster.

WHERE

Everywhere.

WHEN

Now.

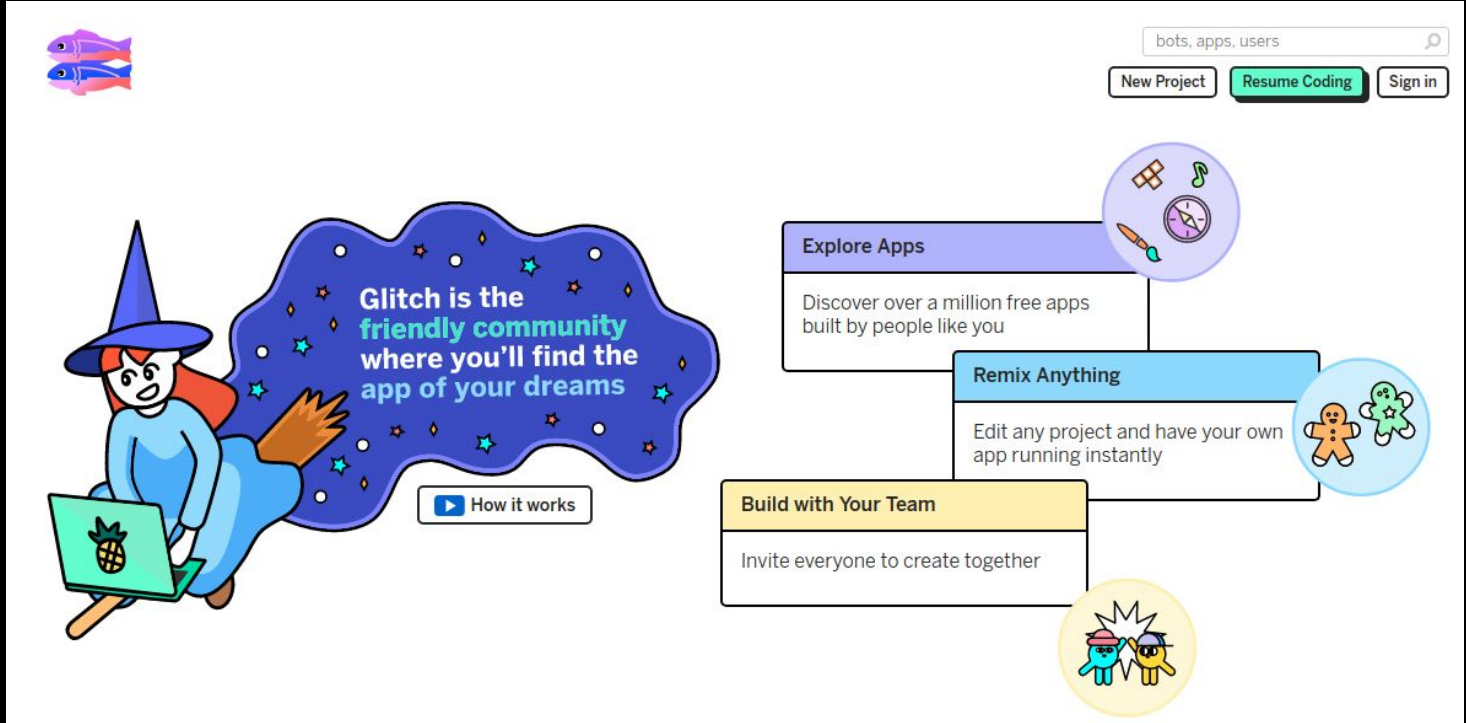
W51H

Resources and Reading

<https://tinyurl.com/tcdc2019>



– GLITCH



The image shows the Glitch website landing page. At the top left is a logo of two fish. At the top right is a search bar with the text "bots, apps, users" and a magnifying glass icon. Below the search bar are three buttons: "New Project", "Resume Coding" (highlighted in green), and "Sign in".

On the left side, there is a cartoon illustration of a witch with red hair, wearing a blue robe and a blue pointed hat, sitting on a broomstick and using a laptop. The laptop screen shows a pineapple icon. To the right of the witch is a blue cloud-like shape with stars and the text: "Glitch is the friendly community where you'll find the app of your dreams". Below this text is a button with a play icon and the text "How it works".

On the right side, there are three main sections arranged in a descending staircase pattern:

- Explore Apps** (purple header): Discover over a million free apps built by people like you. To the right is a circular icon with a paint palette, a pencil, and a compass.
- Remix Anything** (light blue header): Edit any project and have your own app running instantly. To the right is a circular icon with two gingerbread men, one orange and one green.
- Build with Your Team** (yellow header): Invite everyone to create together. To the right is a circular icon with two cartoon characters, one blue and one yellow, holding hands.



— Go! —

<https://glitch.com/~hello-gatsby>

<https://codesandbox.io/s/new>

<https://www.sanity.io/create>







The best JSON:API implementation in existence

The JSON:API module for Drupal is almost certainly the most feature-complete and easiest-to-use JSON:API implementation in existence.

The Drupal JSON:API implementation supports *every* feature of the JSON:API 1.0 specification out-of-the-box. Every Drupal entity (in JSON:API terminology) is automatically made available. Existing access controls for both reading and writing translations and revisions of entities are also made available. Querying entities (*filtering resource collections* in JSON:API terminology) is possible without any configuration (e.g. setting up a query). This means front-end developers can get started on their

```
// 20190606144854
// http://dev-mtcv.pantheon.io/jsonapi/node/page
{
  "jsonapi": {
    "version": "1.0",
    "meta": {
      "links": {
        "self": {
          "href": "http://jsonapi.org/format/1.0/"
        }
      }
    }
  },
  "data": [
    {
      "type": "node--page",
      "id": "4e4028d5-8b4e-458b-8320-22fb2a01771a",
      "attributes": {
        "drupal_internal__nid": 2,
        "drupal_internal__vid": 52,
        "langcode": "en",
        "revision_timestamp": "2019-05-28T20:27:28+00:00",
        "revision_log": null,
        "status": true,
        "title": "Safe Browsing",
        "created": "2019-05-12T17:41:59+00:00",
        "changed": "2019-05-28T20:27:28+00:00",
        "promote": false,
        "sticky": false,
        "default_langcode": true,
        "revision_translation_affected": null,
        "path": {
          "alias": "/safe-browsing",
          "pid": 1,
          "langcode": "en"
        }
      }
    }
  ],
}
```

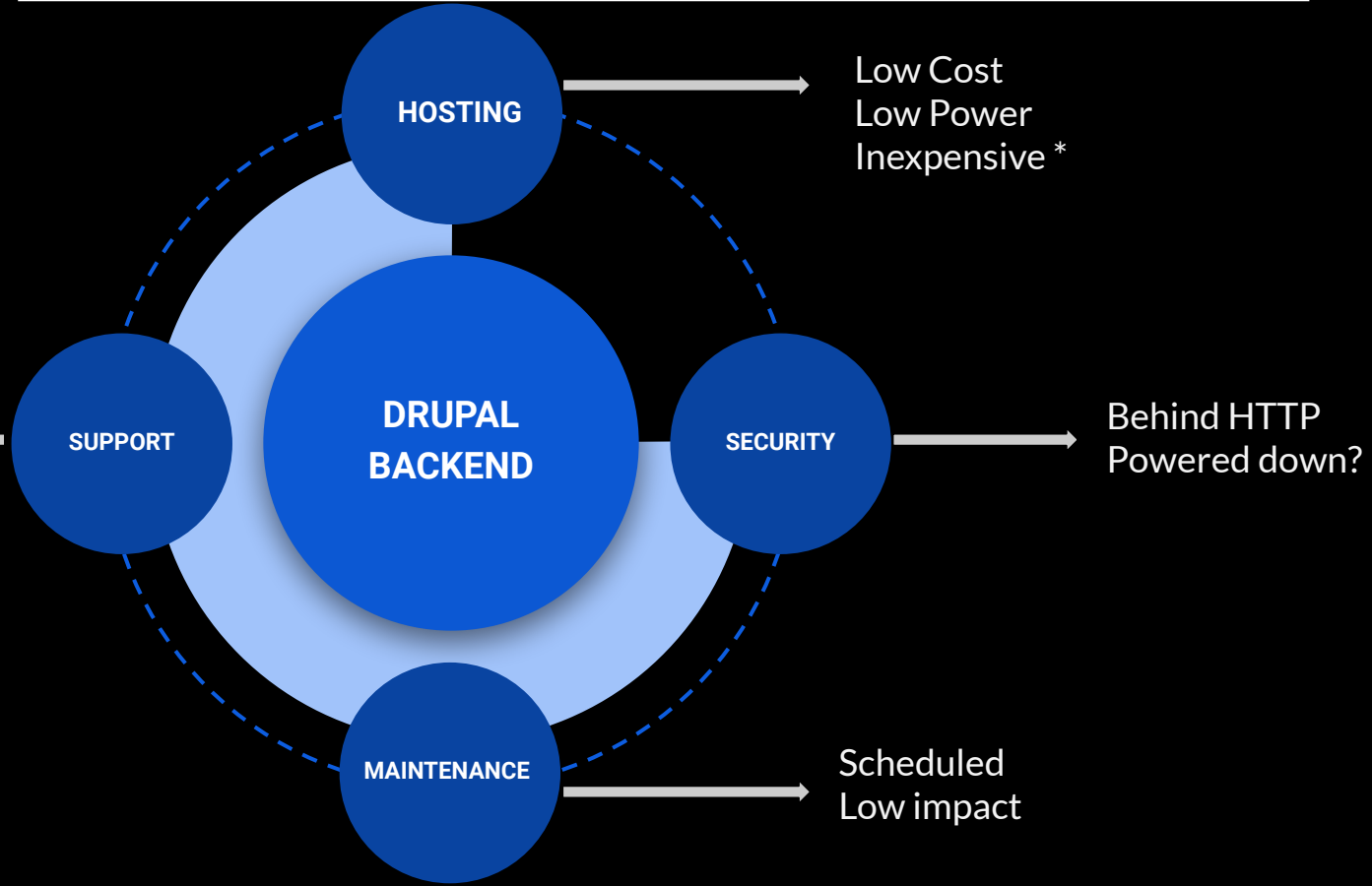


/jsonapi

CAN I USE IT??	YES	NO!
VIEWS		
TWIG		
LAYOUT BUILDER		
CONTRIB MODULES		
WEBFORMS		
SEARCH API		
CONTENT TYPES		
ENTITY REFERENCES		
PARAGRAPHS & MEDIA		
TAXONOMY		
WORKFLOW & SCHEDULING		
JSON API		



Different?





Pay as You Grow

[Talk to us](#)[Try for free](#)

We offer spaces for all types of use cases, from single page apps, to campaign websites, mobile apps, etc. Below are some of our more popular ones.



MICRO SPACE

For teams working on single-purpose sites, mobile apps and IoT

1 sandbox environment, plus

1 role

2 locales

24 content types

5,000 records

\$39 / month



LARGE SPACE

For teams shipping complex apps and working with multilingual content

5 sandbox environments,
GraphQL API, plus

4 roles

10 locales

48 content types

50,000 records

\$879 / month

ENTERPRISE-GRADE SPACES

[LOG IN](#)[TRY FOR FREE](#)[CONTACT US](#)

BASIC

Value pack for small apps or static sites

\$49
per project / month

[START A FREE TRIAL](#)

Users	10
Stages	1
Locales	1
Roles	4
Records	∞

Basic includes:



STANDARD

Perfect for complex apps and multilingual content

\$149
per project / month

[START A FREE TRIAL](#)

Users	20
Stages	2
Locales	4
Roles	4
Records	∞

All from Basic, plus:



PROFESSIONAL

For organizations that want to be in full control

\$499
per project / month

[START A FREE TRIAL](#)

Users	50
Stages	3
Locales	10
Roles	∞
Records	∞

All from Standard, plus:



ENTERPRISE

For teams with big ideas and paramount expectations

Custom pricing tailored to
your requirements

[TALK TO SALES!](#)

- ✓ All Features
- ✓ Custom Limits
Be it the number of users or API operations. We've got you covered.
- ✓ Unparalleled Performance
Enterprise-grade infrastructure managed by our team of experts.
- ✓ SLA-Guaranteed Uptime
Availability is monitored by our engineers and we guarantee a minimum of 99.9% uptime.



React

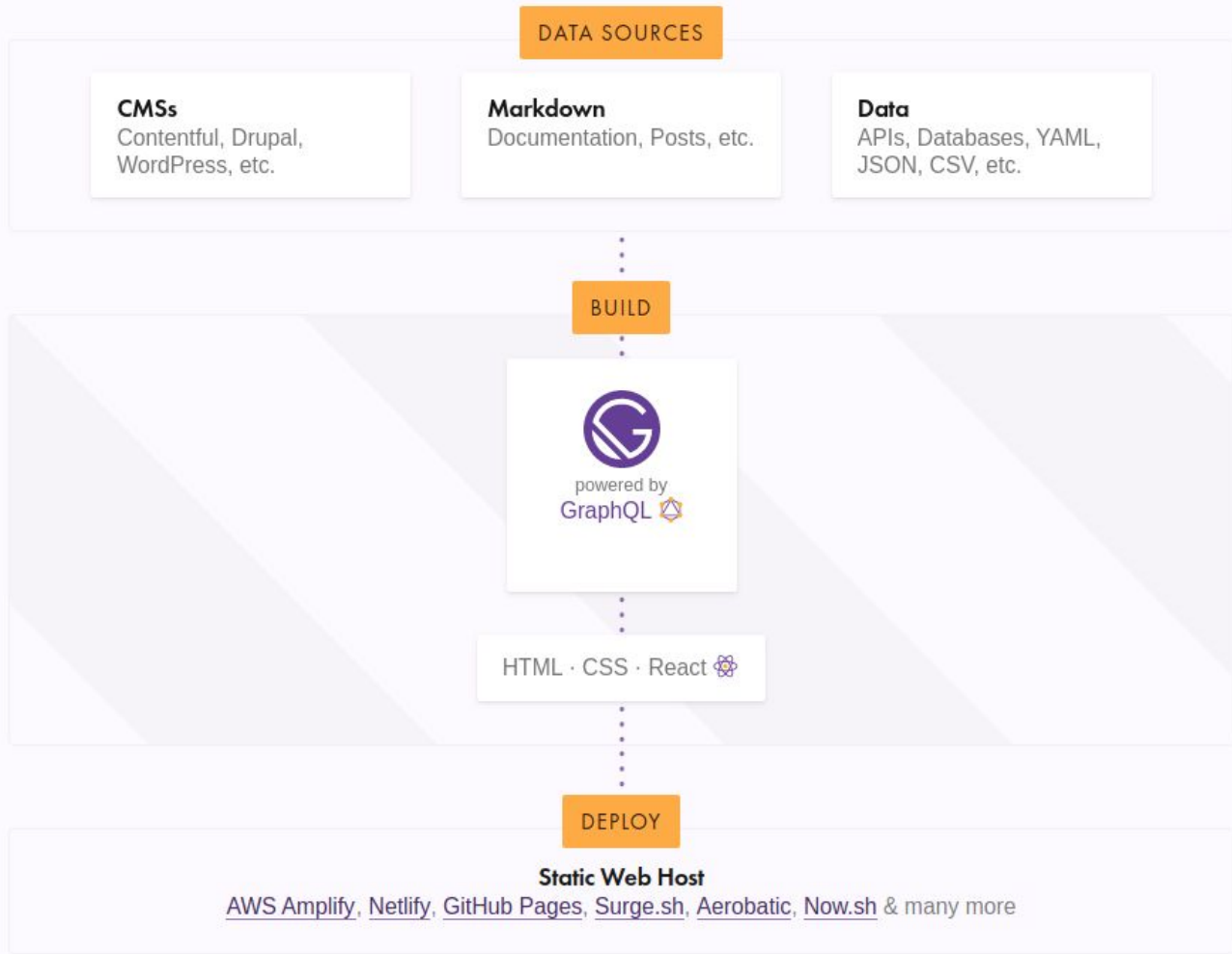
A JavaScript library for building user interfaces

Get Started

Take the Tutorial >



Meet Gatsby!





The React Framework for Server-Rendered Apps

See Showcase

License: MIT [View Docs](#) [GitHub](#)

“I would never build
anything in React **without**
choosing Next or Gatsby.”

Wes Bos, Feb. 2019







JAVASCRIPT IS COMING TO EAT YOU



Citizen Tim

Electric Citizen | June 2019

