

# JAMming with GraphCMS, GatsbyJS and GraphQL

GraphQL Vienna February Meetup

February 5th, 2018

# Agenda

1. **Content management and presentation/distribution on the web**
2. The Shape of Things to Come... many are already here
3. Why am I here?
  1. We need a "website"
  2. JAMstack, GraphCMS and GatsbyJS
  3. GatsbyJS GraphCMS Plugin

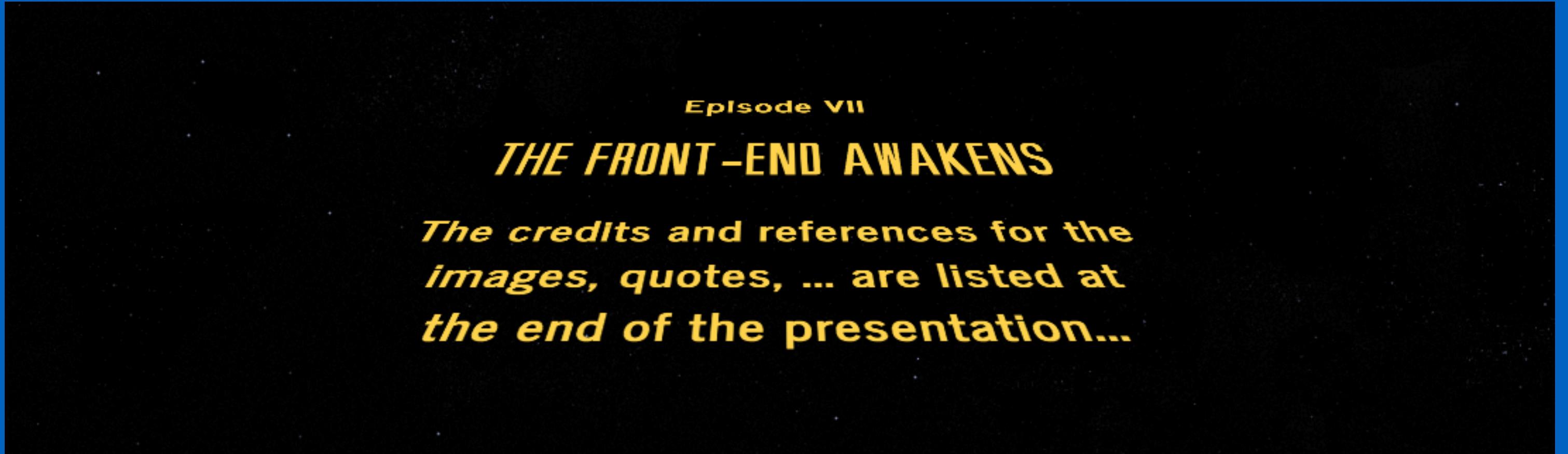
# WARNING

Meetup in progress...

We can talk face to face about  
ideas!!!

About this talk  
Constructive and deconstructive  
criticism welcome!

# Credits



# Fasten your seatbelts...



# Who are you?



# Website Meta Language





FIVE CRIMINALS. ONE LINE UP.

NO COINCIDENCE.

the Usual  
Suspects

rafael amado | @rafacm | Learning with GraphQL, React, Gatsby, Next.js, Gatsby CMS, GatsbyJS and GraphQL | GraphQL Vienna Meetup

# Hosted CMSS

## Spectrum of choices:

1. Blogs, websites, communities, ...
2. Full-stack = back-end + front-end
3. Many offer REST APIs
4. ...
5. They are actually **development platforms**



# The Anatomy of a CMS

1. Content modeling, versioning, ...
2. Content editing, versioning, ...
3. Querying / search
4. ACLs: who can do what
5. Audit: who did what when
6. Content rendering (frameworks, libraries, ...)
7. Content analytics, personalization, SEO, ...



We need a "website"

"Software is never finished, just abandoned"

– *Leonardo Dev Vinci*

The website initial  
**successful website** turns  
into ...

... a **web app.**



# The Neutron Dance

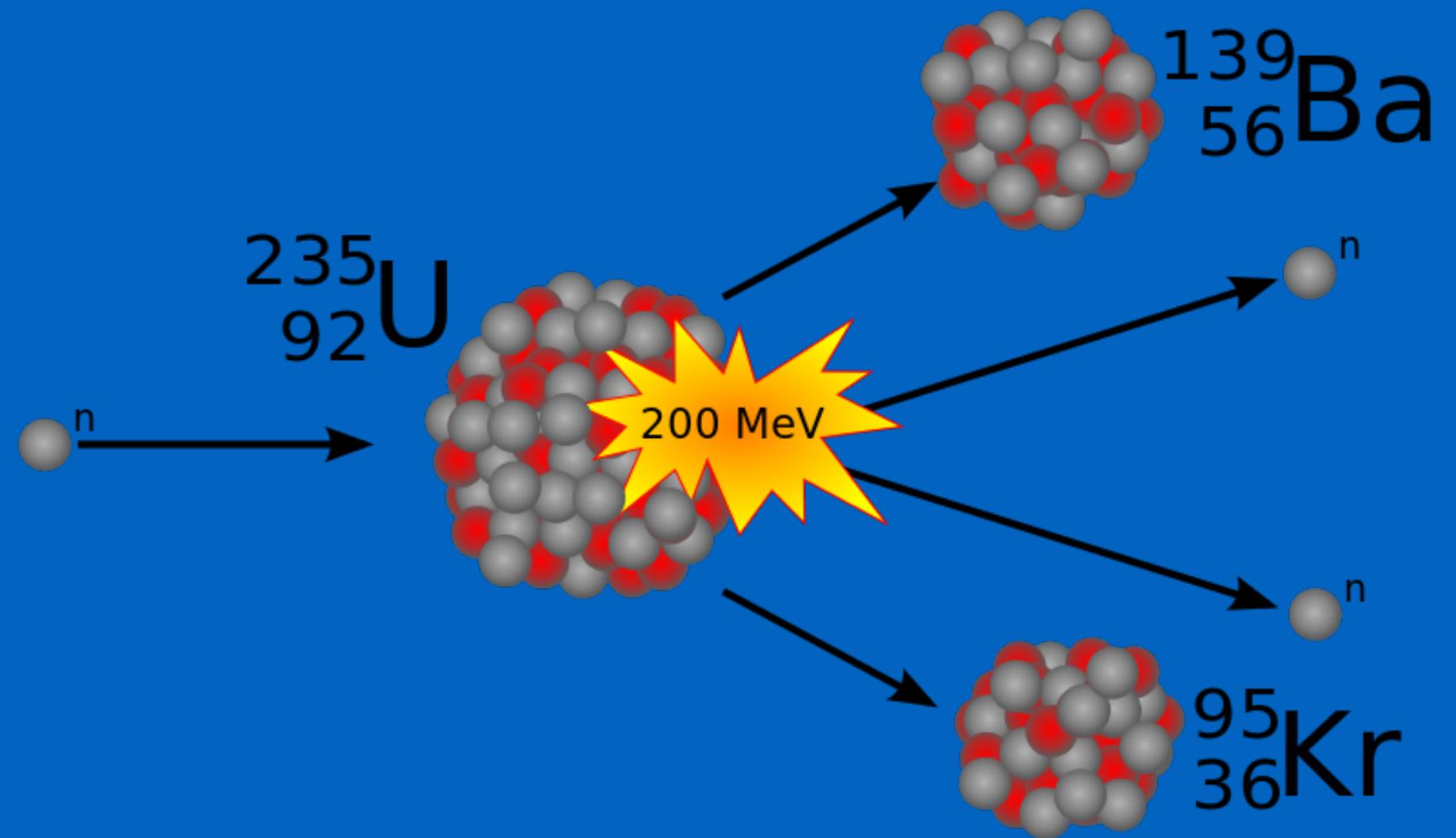
And it's hard to say  
Just **how some [content] never changes**  
And it's hard to find  
Any **strength to draw the line**  
Oh I'm just burning doin' the neutron  
dance  
I'm just burning doin' the neutron dance

– "Neutron Dance" *The Pointer Sisters*



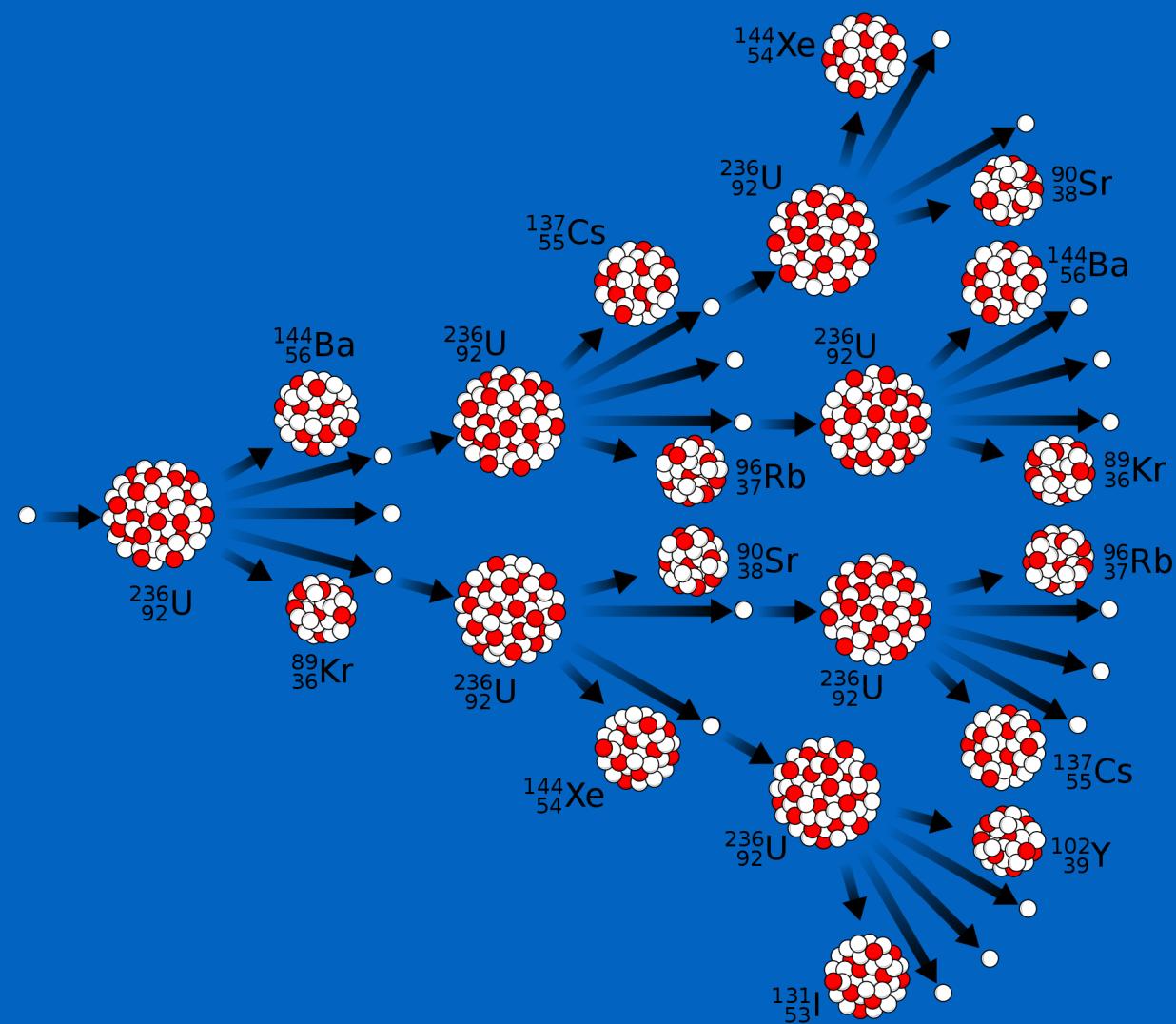
# The Neutron Dance

1. The half-life of content is considerable higher than that of its presentation.
2. Content **editing** and content **presentation** are different concerns
3. Developers need to learn *each CMS APIs and framework*
4. Editors need to *learn* the specific CMS administration interface
5. Customers need to find developers for the implementation... every 2 years

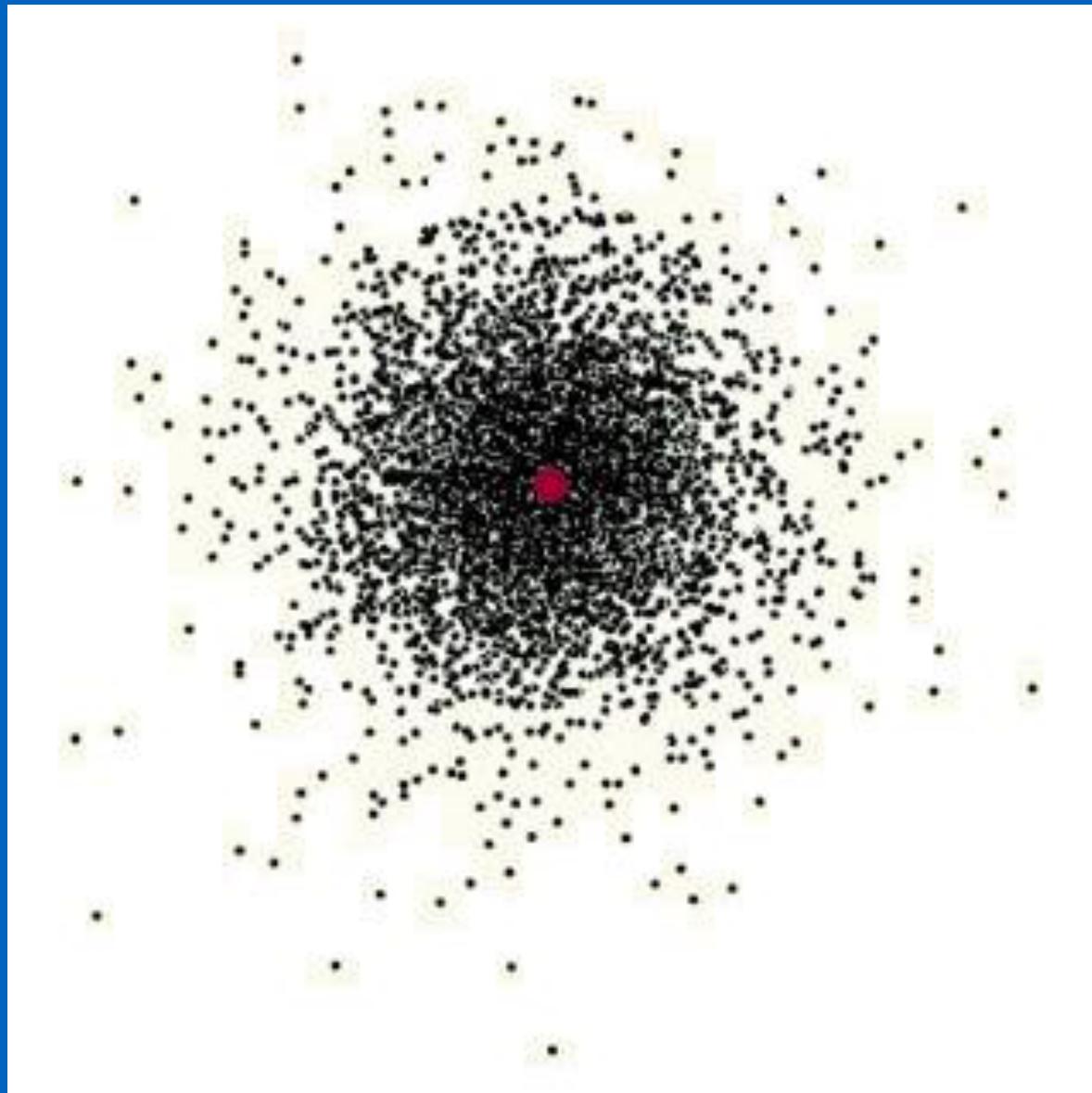


CMS -> Back-end + Front-end

# Back-end?



# Back-end?



# Back-end?





# The CMS (Content Management System) is dead!



Long Live the CMS  
(Content Micro-  
Service)!

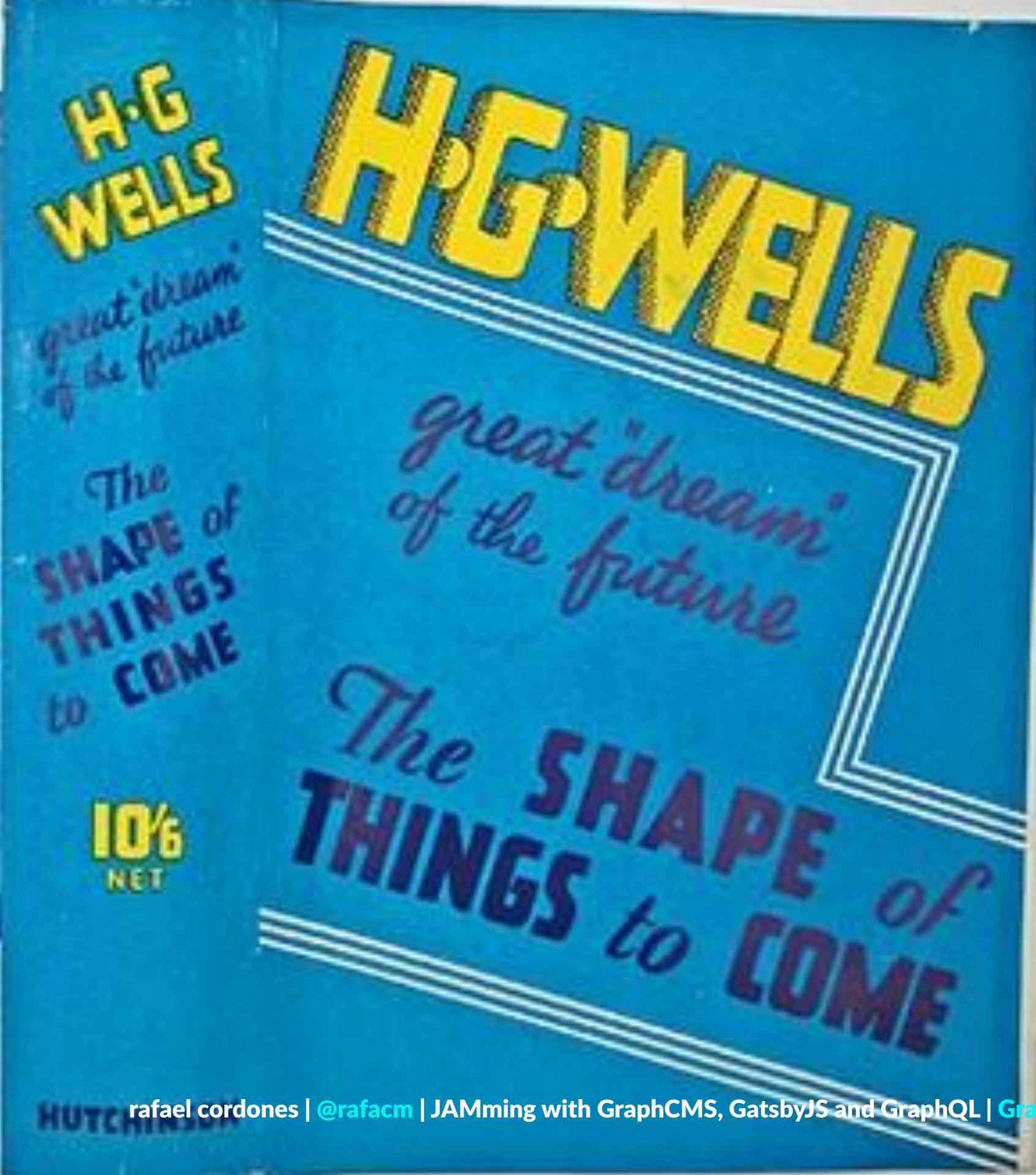
a.k.a. Headless  
CMS

# Headless CMS



# JAMstack





# The Shape of Things to Come

API-driven CMSs:

1. contentful
2. prismic
3. GraphCMS
4. GENTICS Mesh (Made in Vienna!)
5. ...

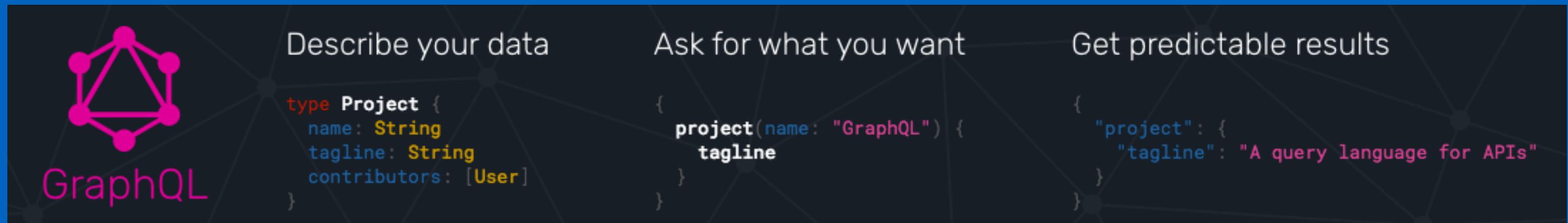
# O Content, where art thou?



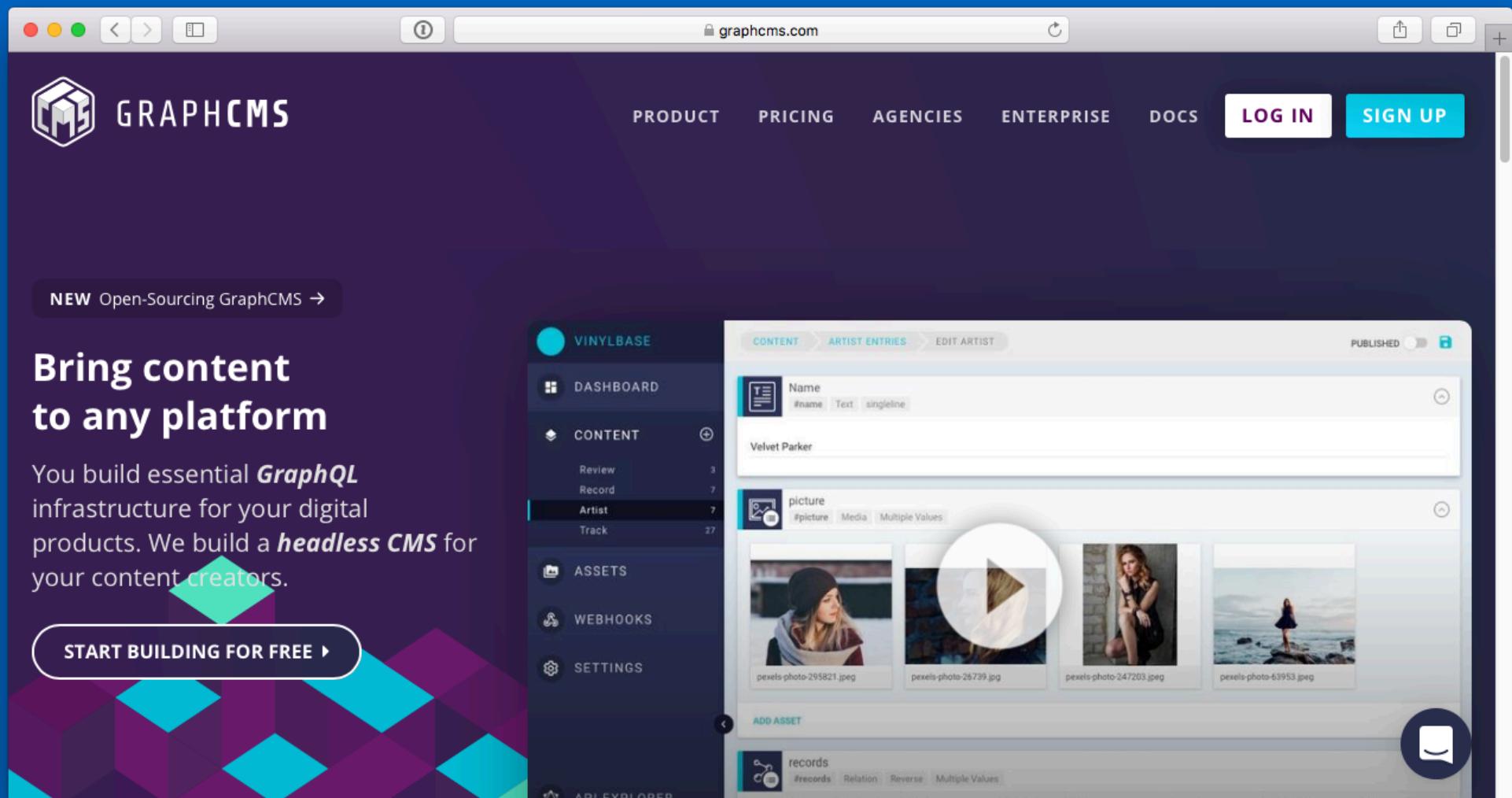
# O Content, where art thou?

"I Am A [Dev] of Constant Sorrow" --- Soggy Bottom [Devs]

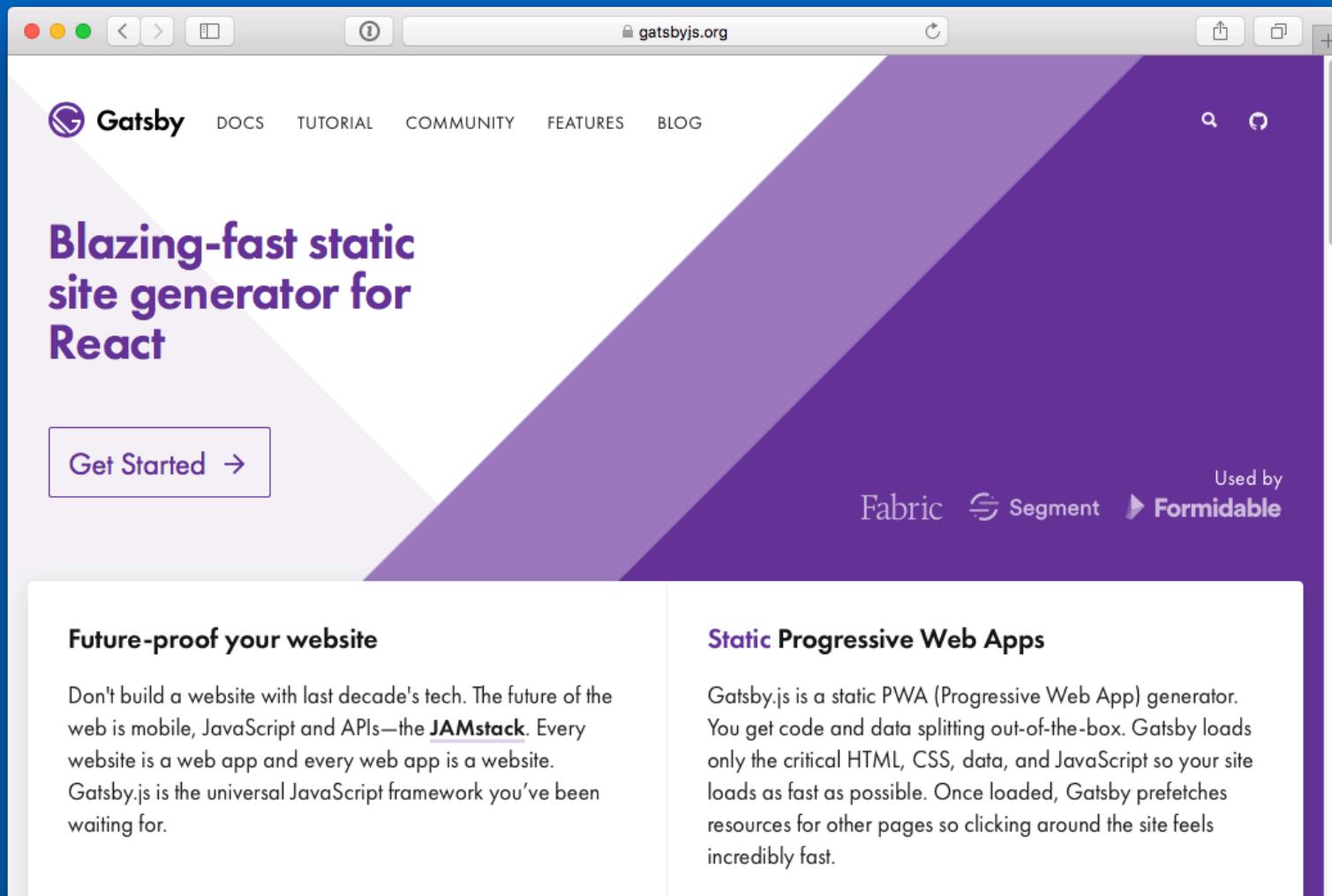
1. Proliferation of content repository APIs adds overhead for developers to learn about the **semantics** of the API
2. One API to rule them all?



# GraphCMS



# GatsbyJS



"It's like déjà vu all over again"

— *Yogi Berra*

# My background?

Back-end Java/Scala development (type and function signatures)

Server-side "front-end" generated with dashes of JavaScript

# Why GatsbyJS? JavaScript?! NodeJS?!



**“Keep your friends close,  
but your enemies even closer.”**

# Why headless CMS?



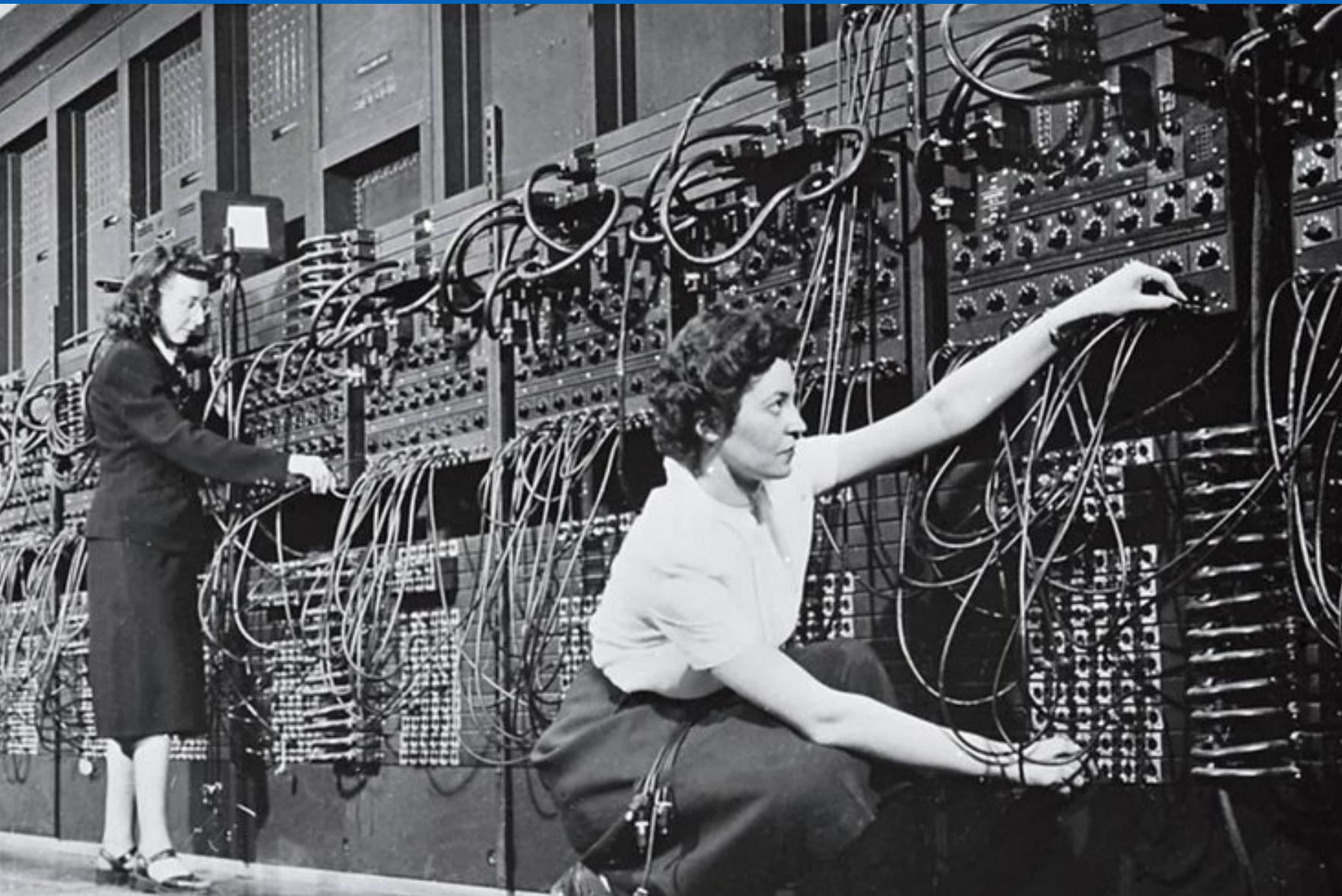
# Computers



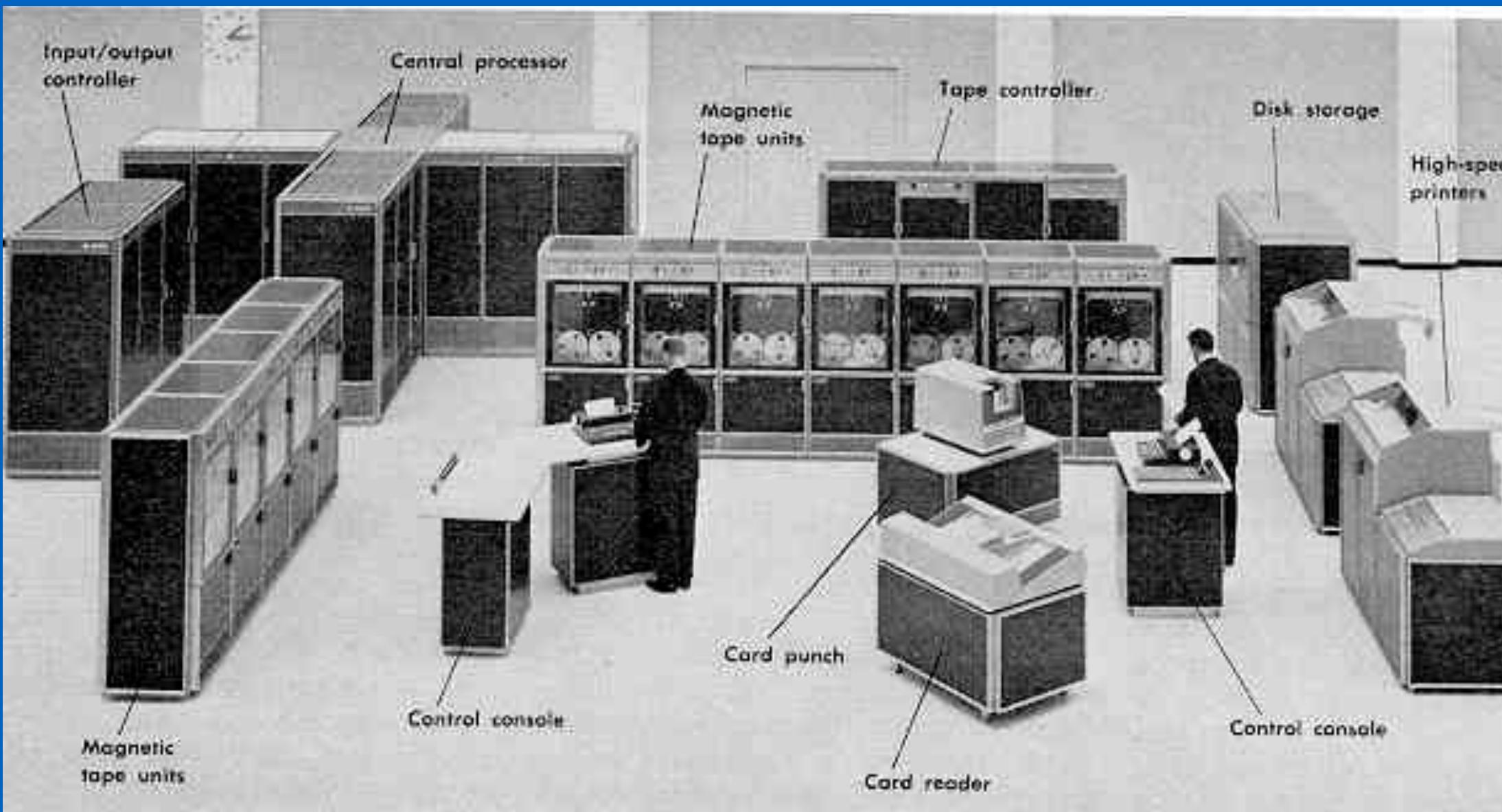
**"I think there is a world market for maybe five computers."**

*– Thomas J. Watson, president of IBM, 1943*

# Computers?



# Computers?



# Computers?



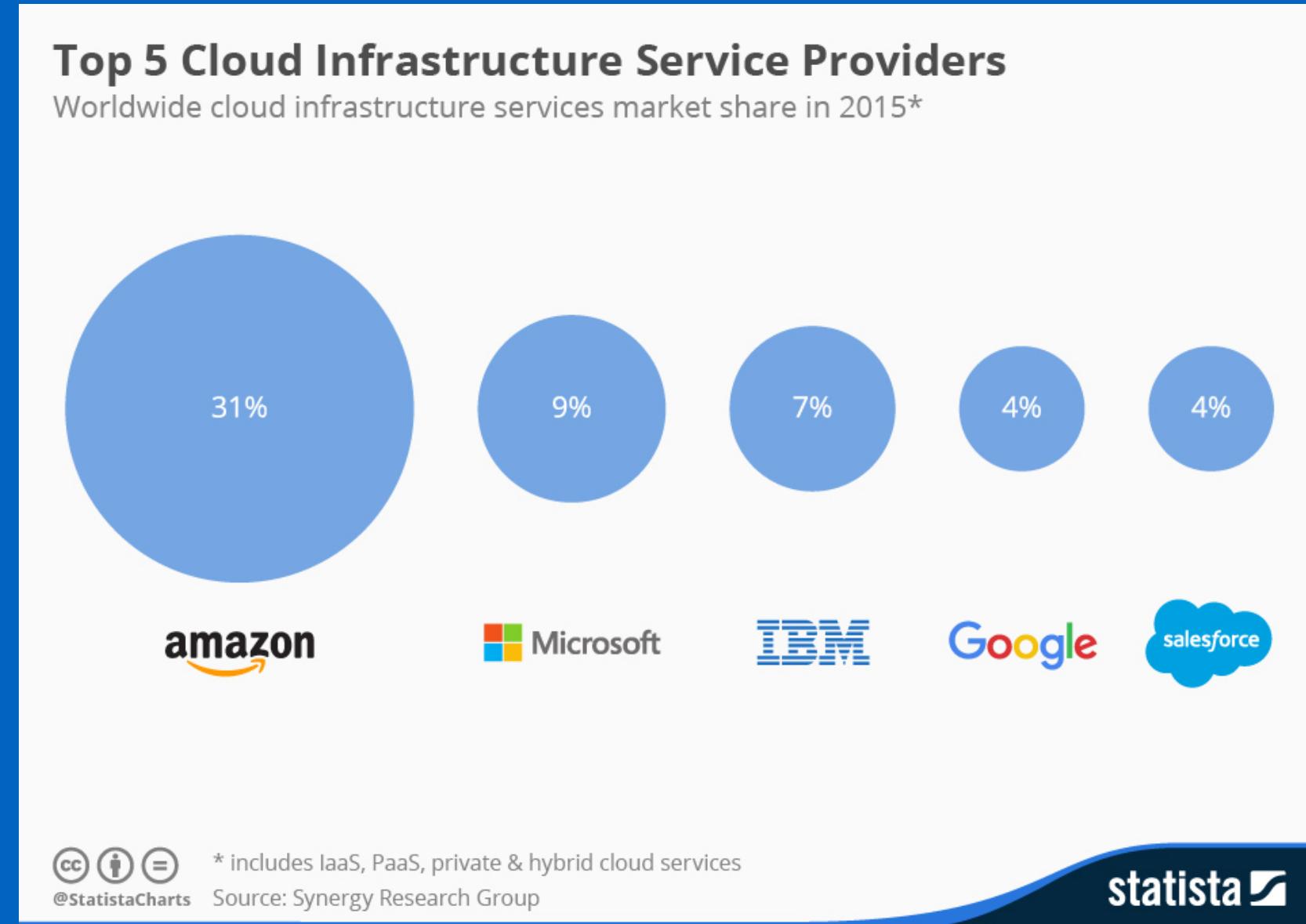
# Computers?



# Computers?



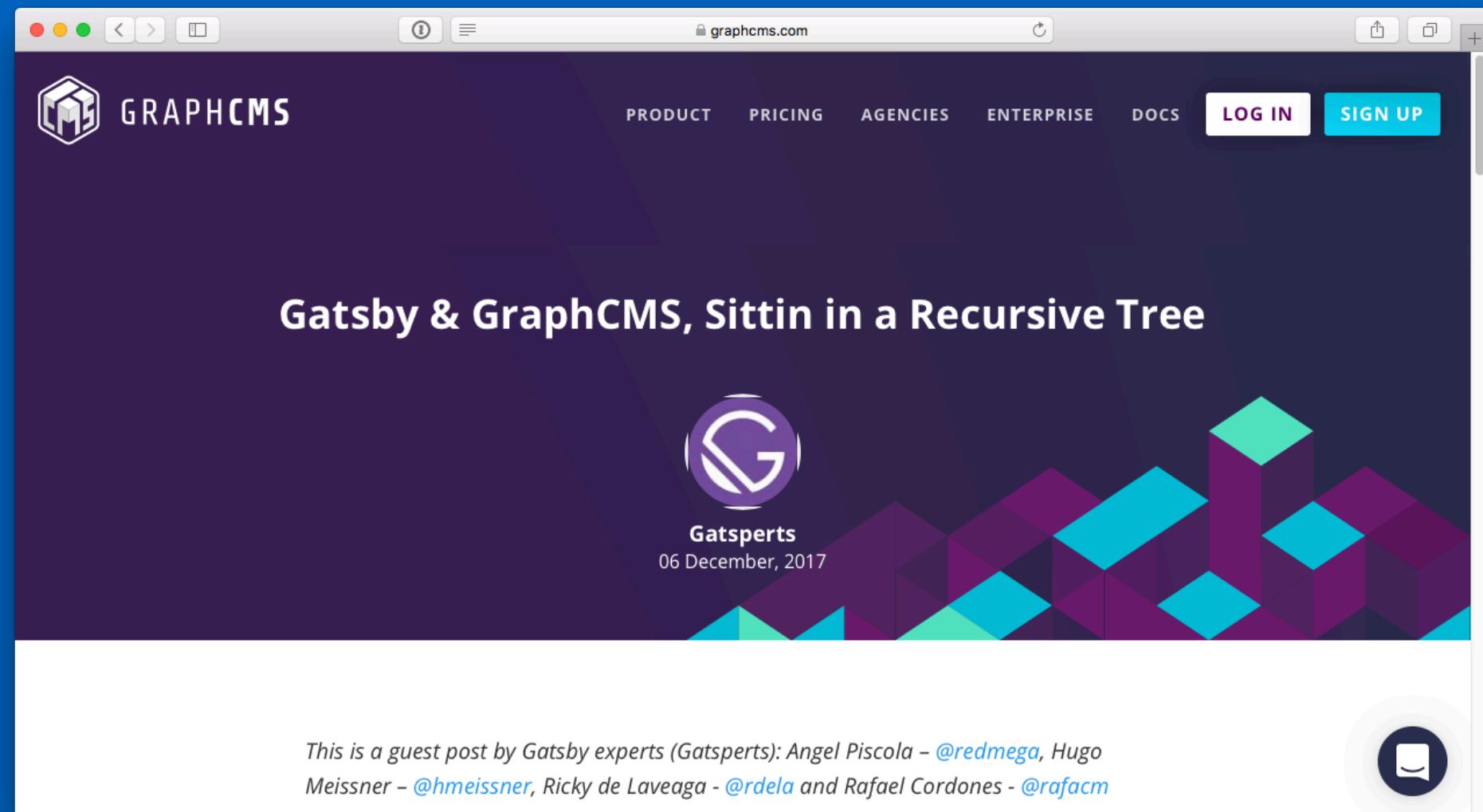
# Computers?



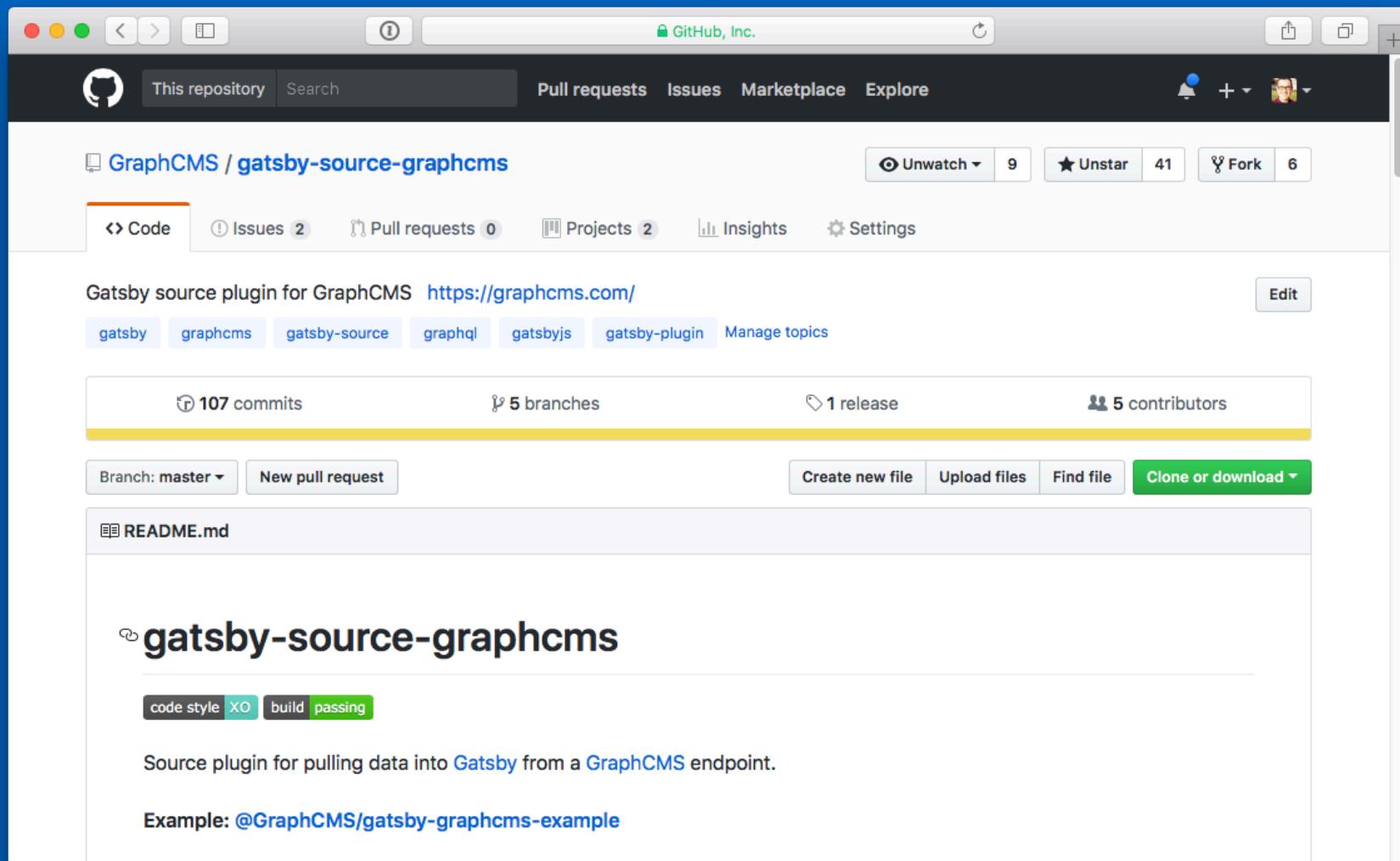
# 5 Computers!



# GatsbyJS GraphCMS Plugin



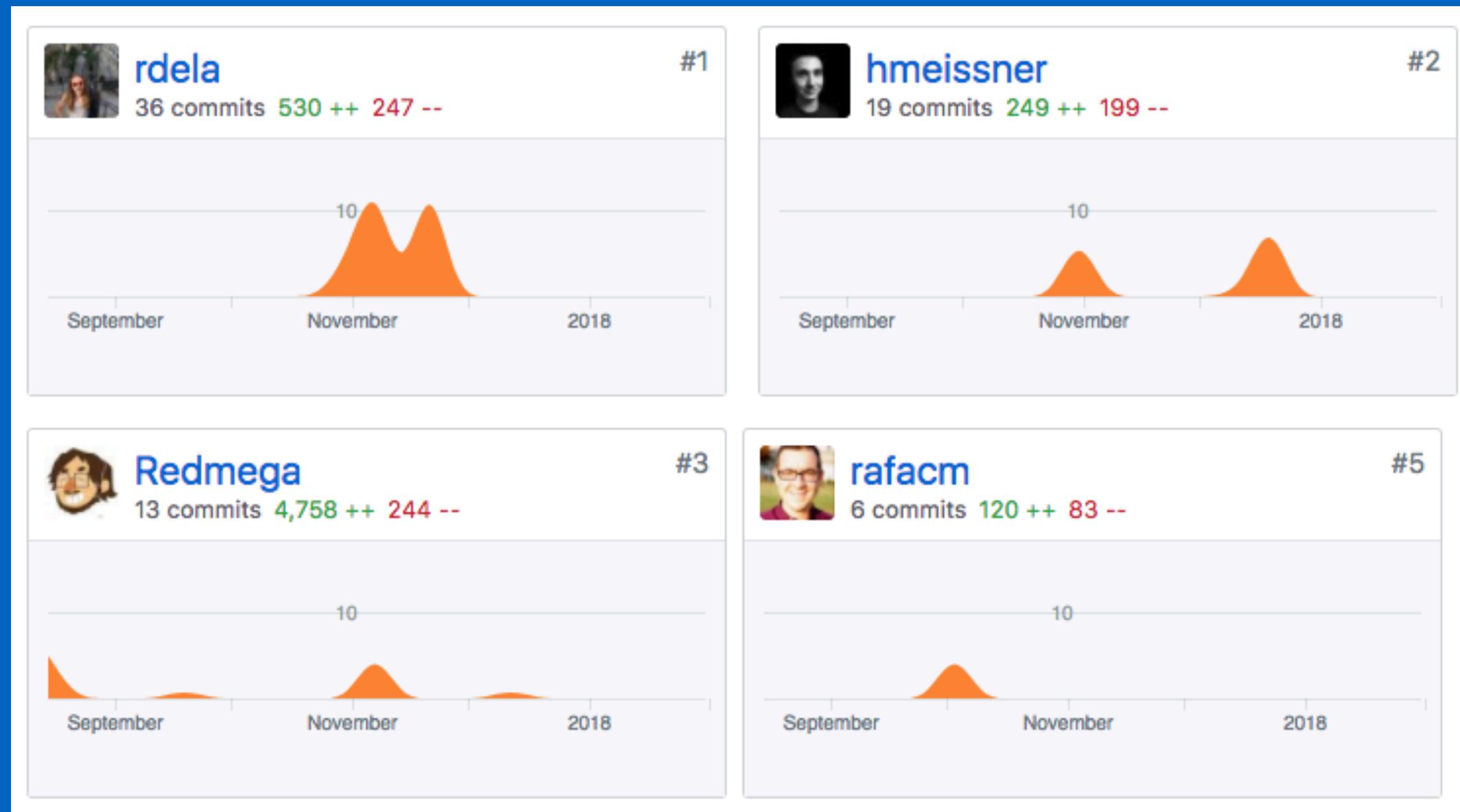
# GatsbyJS GraphCMS Plugin

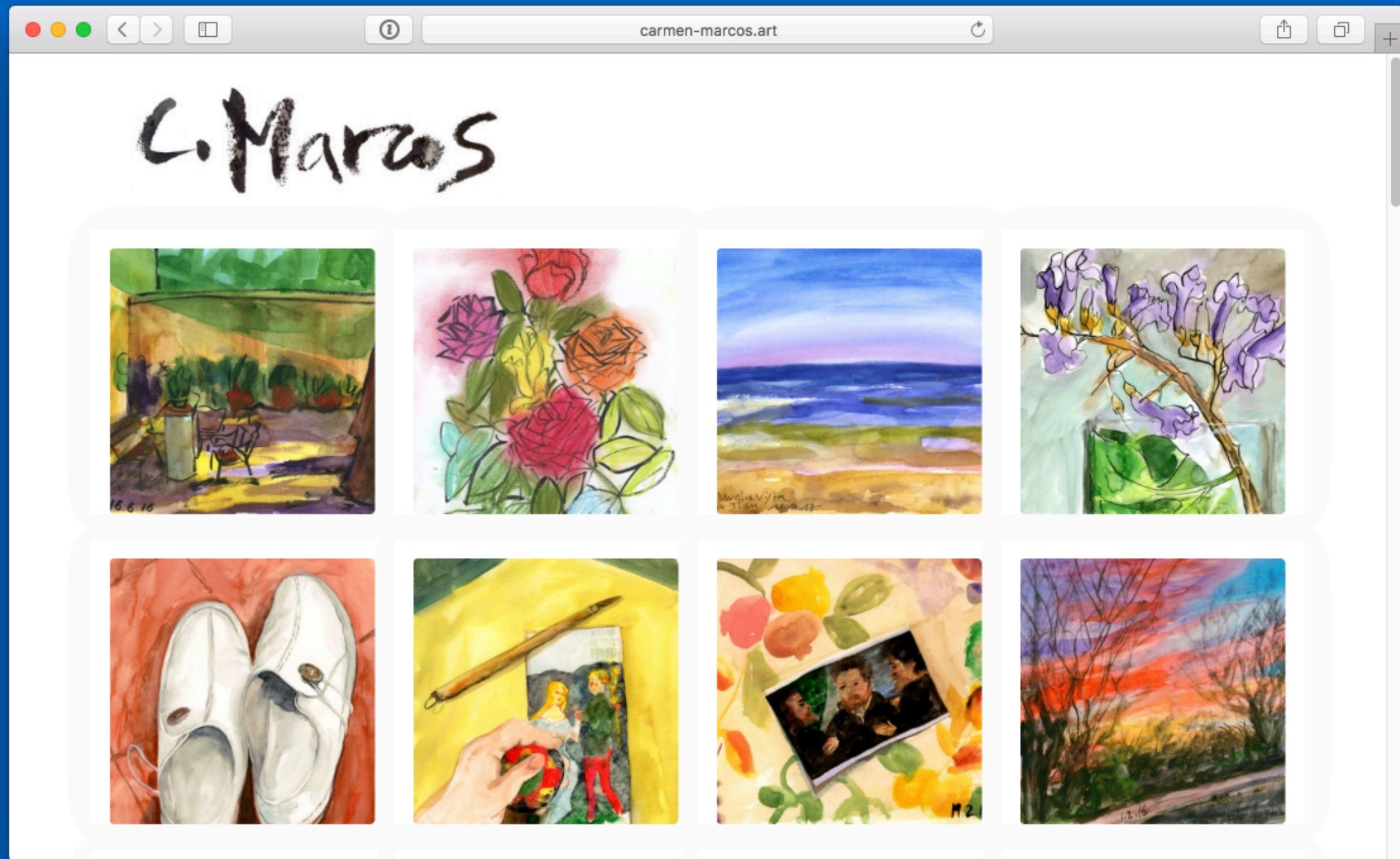


# GatsbyJS GraphCMS Plugin

## Tour de code

# GatsbyJS GraphCMS Plugin Credits





The screenshot shows a GitHub repository page for the user rafacm with the repository name Carmen Marcos Website powered by GatsbyJS. The page includes a summary bar with 23 commits, 1 branch, 0 releases, 1 contributor, and an MIT license. Below this is a list of commits:

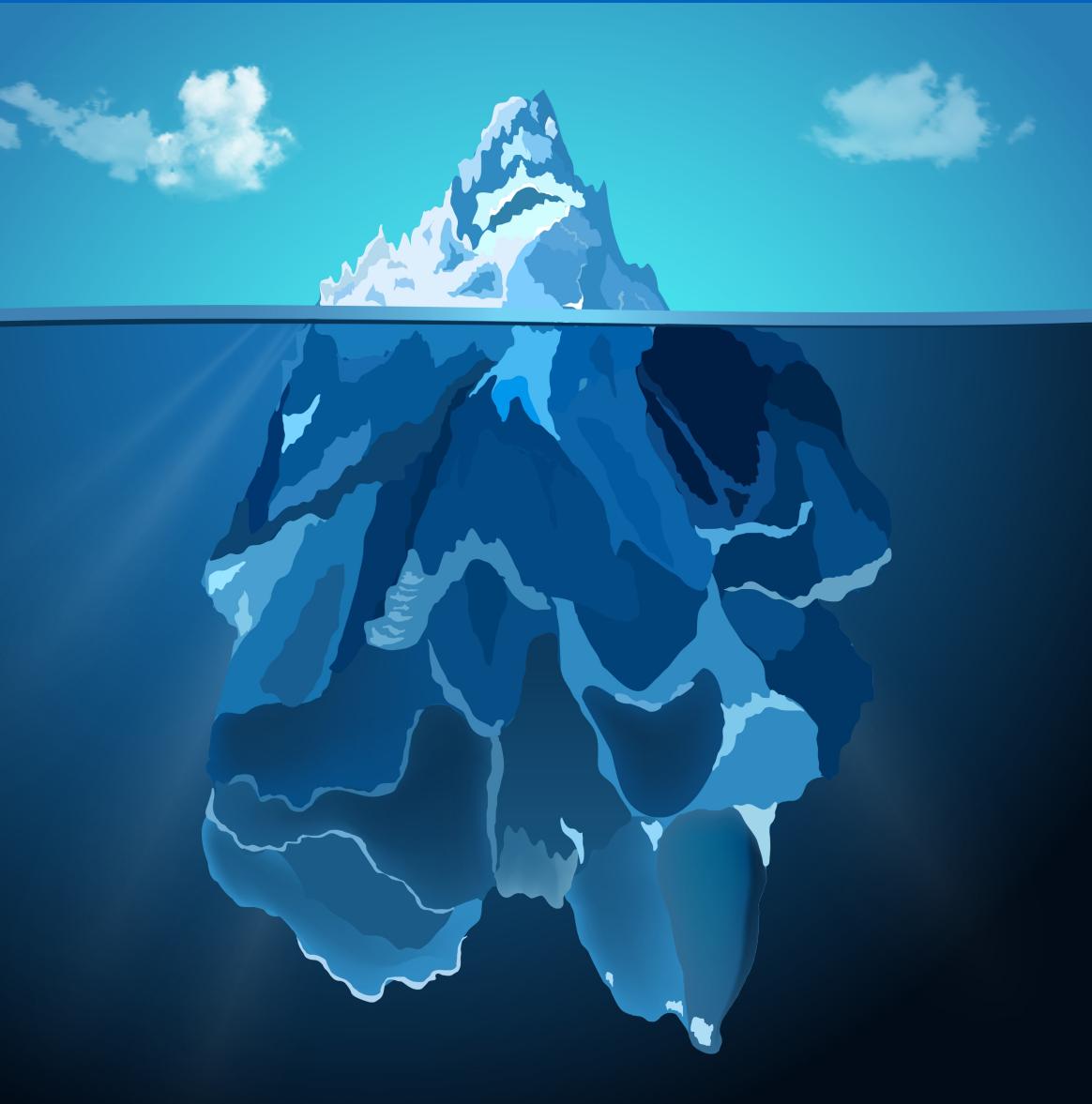
Commit	Message	Date
rafacm Resize work detail page images	Latest commit 0054dd3 4 days ago	4 days ago
src	Resize work detail page images	4 days ago
.babelrc	Spike: front-page showing featured works	2 months ago
.gitignore	Init: gatsby new carmen-marcos.art	4 months ago
.travis.yml	Remove npm test build phase	2 months ago
LICENSE	Init: gatsby new carmen-marcos.art	4 months ago
README.md	Init: gatsby new carmen-marcos.art	4 months ago
carmenmarcosart-schema.json	Spike: front-page showing featured works	2 months ago
gatsby-config.js	Work detail page implemented	2 months ago
gatsby-node.js	Work detail page implemented	2 months ago

# GatsbyJS GraphCMS Plugin

## Lessons learned?

1. GatsbyJS codebase: O Brother! Where art thou TYPES?!
2. NPM: at the end of the day, relase/ship the f\* thing
3. GraphQL: introspecting (metadata/types) GraphQL query **results**
4. GraphCMS: content **hierarchy** a must have when scaling

# A CMS just does CRUD, or?



# If all you have is a hammer...



# Yeah, well, that's just like, your opinion, man



# What's yours?!





# Credits

- Slide 5: Star Wars Opening Crawl generator
- Slide 6: Forklift Safety Signs - Stop Fasten Your Seat Belts With Seat Belt Symbol
- Slide 7: WALL-E
- Slide 8: Website Meta Language
- Slide 9: The Usual Suspects

# Credits

- Slide 10: [The Anatomy Lesson of Dr. Nicolaes Tulp](#)
- Slide 11: [Leonardo Da Vinci](#)
- Slide 12: "The Neutron Dance" ([video](#)) by [The Pointer Sisters](#)
- Slide 13: "The Neutron Dance" ([video](#)) by [The Pointer Sisters](#)
- Slide 14: [Kernspaltung](#)
- Slide 15: [Kernspaltung](#)

# Credits

- Slide 16: Electron cloud
- Slide 17: Own picture
- Slide 18: Execution of Louis XVI
- Slide 19: Execution of Louis XVI
- Slide 20: Headless CMS
- Slide 21: JAMStack

# Credits

- Slide 22: The Shape of Things to Come
- Slide 23: Man of constant sorrow
- Slide 25: GraphCMS
- Slide 26: GatsbyJS
- Slide 29: "Keep your friends close, but your enemies closer"
- Slide 31: Thomas J. Watson

# Credits

- Slide 32: ENIAC
- Slide 33: Mainframe computer
- Slide 34: ZX Spectrum
- Slide 35: IBM Personal Computer
- Slide 36: Smartphones picture
- Slide 37: Top 5 Cloud Infrastructure Service Providers

# Credits

- Slide 38: Thomas J. Watson
- Slide 39: GatsbyJS GraphCMS Plugin Presentation
- Slide 40: GatsbyJS GraphCMS Plugin
- Slide 42: GatsbyJS GraphCMS Plugin Credits
- Slide 43: carmen-marcos.art
- Slide 44: carmen-marcos.art GitHub

# Credits

- Slide 47: 2001: A Space Odyssey
- Slide 48: The Big Lebowski
- Slide 49: Spies Like Us
- Slide 50: Jamming (video)