

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

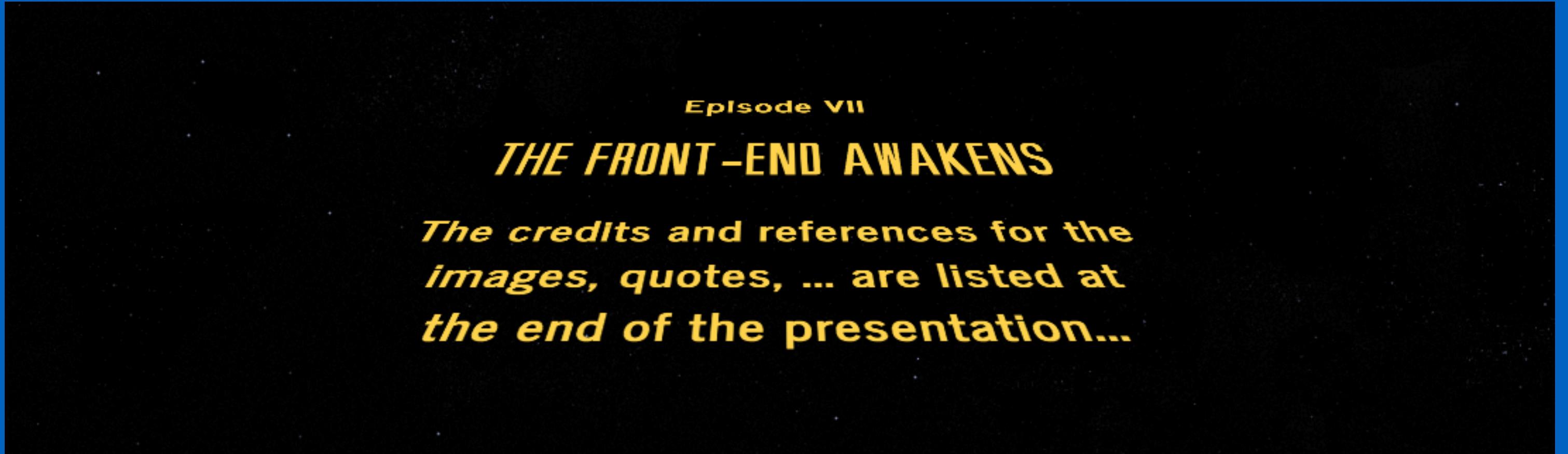
WARNING

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





the Usual Suspects

rafael amado | [@rafacm](#) | Learning with GraphQL, 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

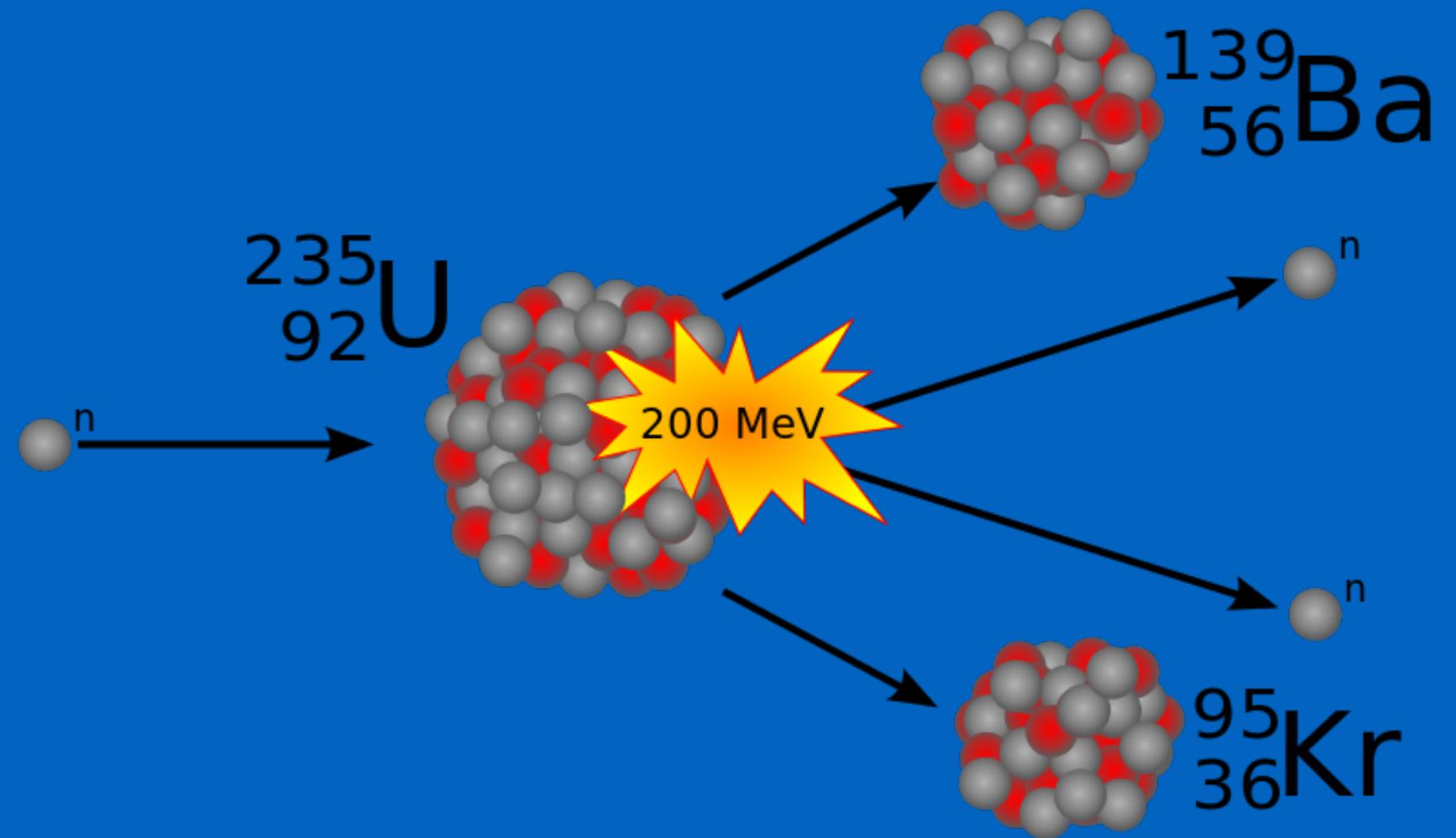
And it's hard to say
Just **how some [content] never changes**
And it's hard to find
Any **strength to draw the line**
Oh I'm just burning doin' the neutron
dance
I'm just burning doin' the neutron dance

– "Neutron Dance" *The Pointer Sisters*



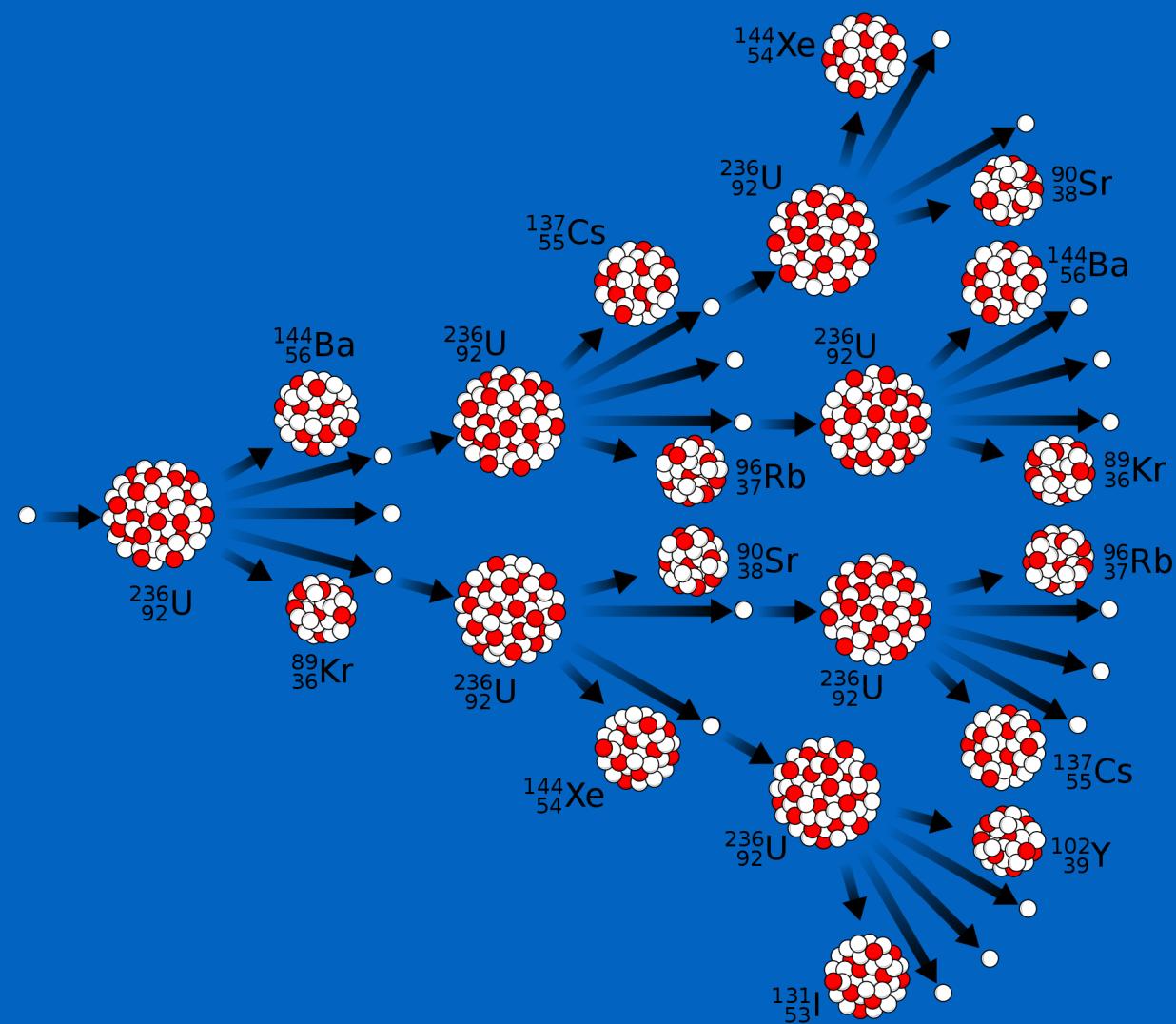
The Neutron Dance

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

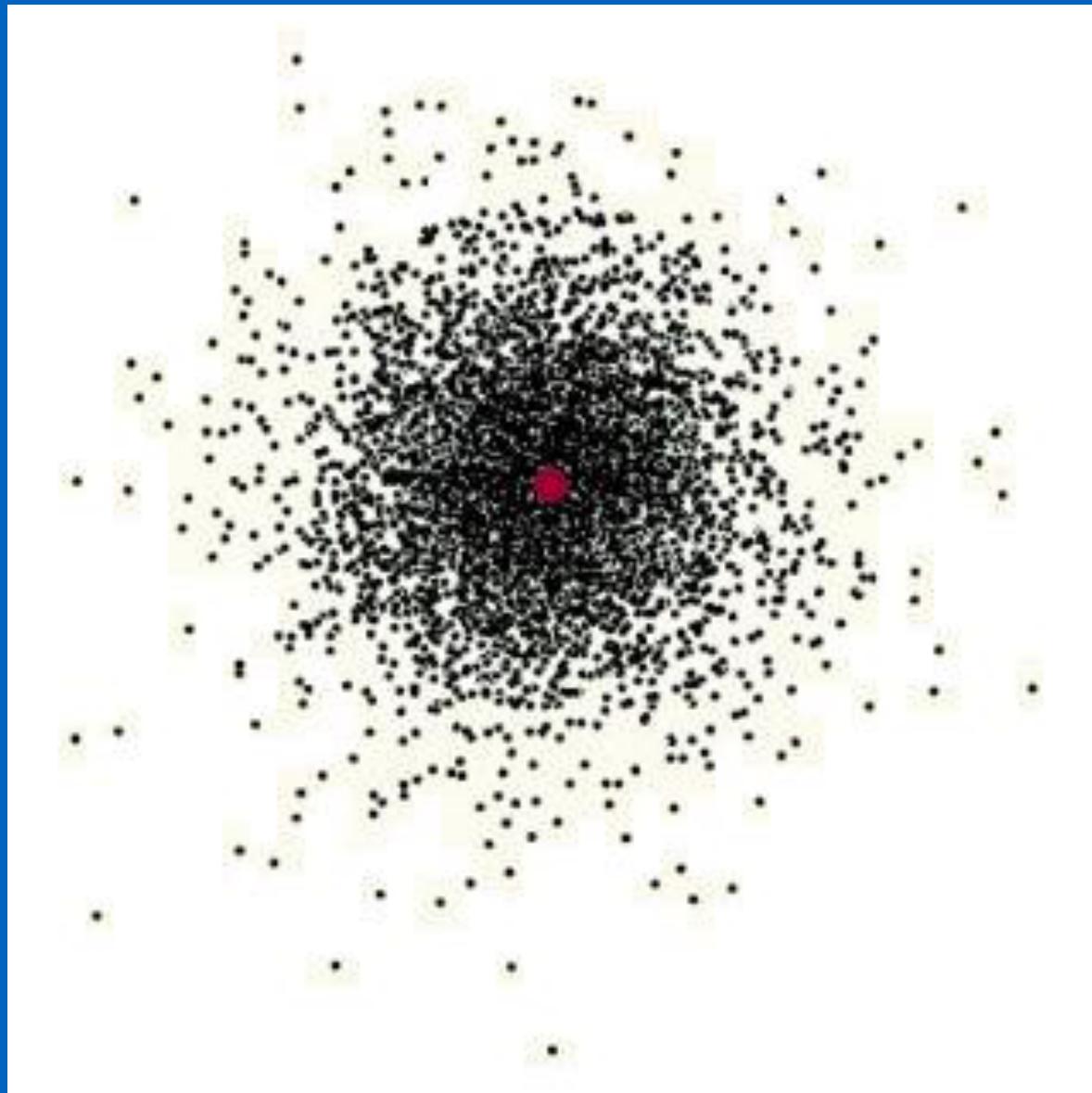


CMS -> Back-end + Front-end

Back-end?



Back-end?



Back-end?





The CMS (Content Management System) is dead!



Long Live the CMS
(Content Micro-
Service)!

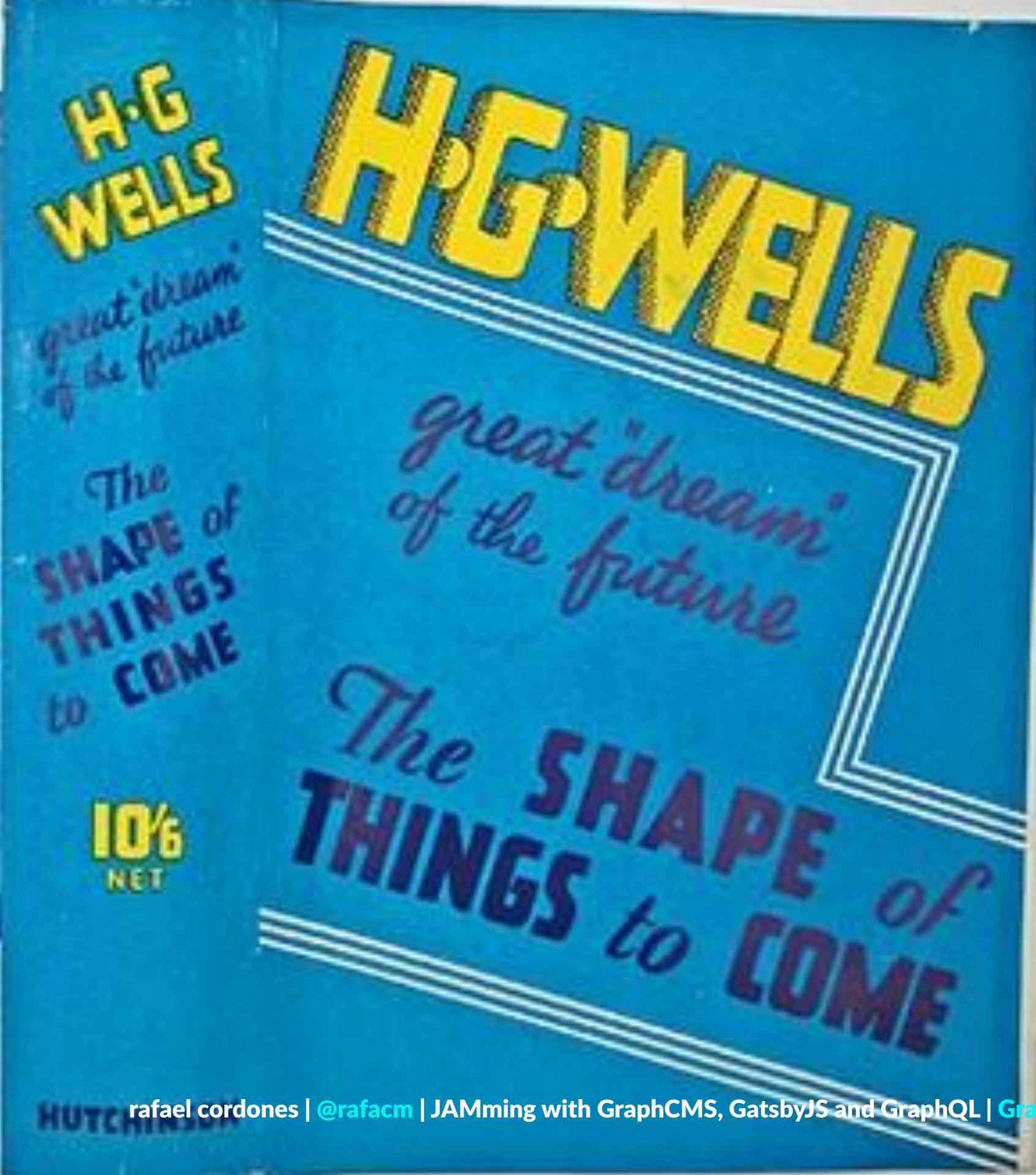
a.k.a. Headless
CMS

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. ...

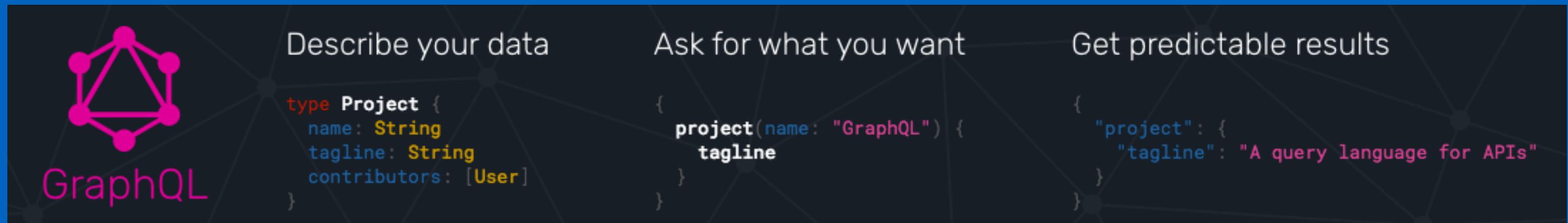
O Content, where art thou?



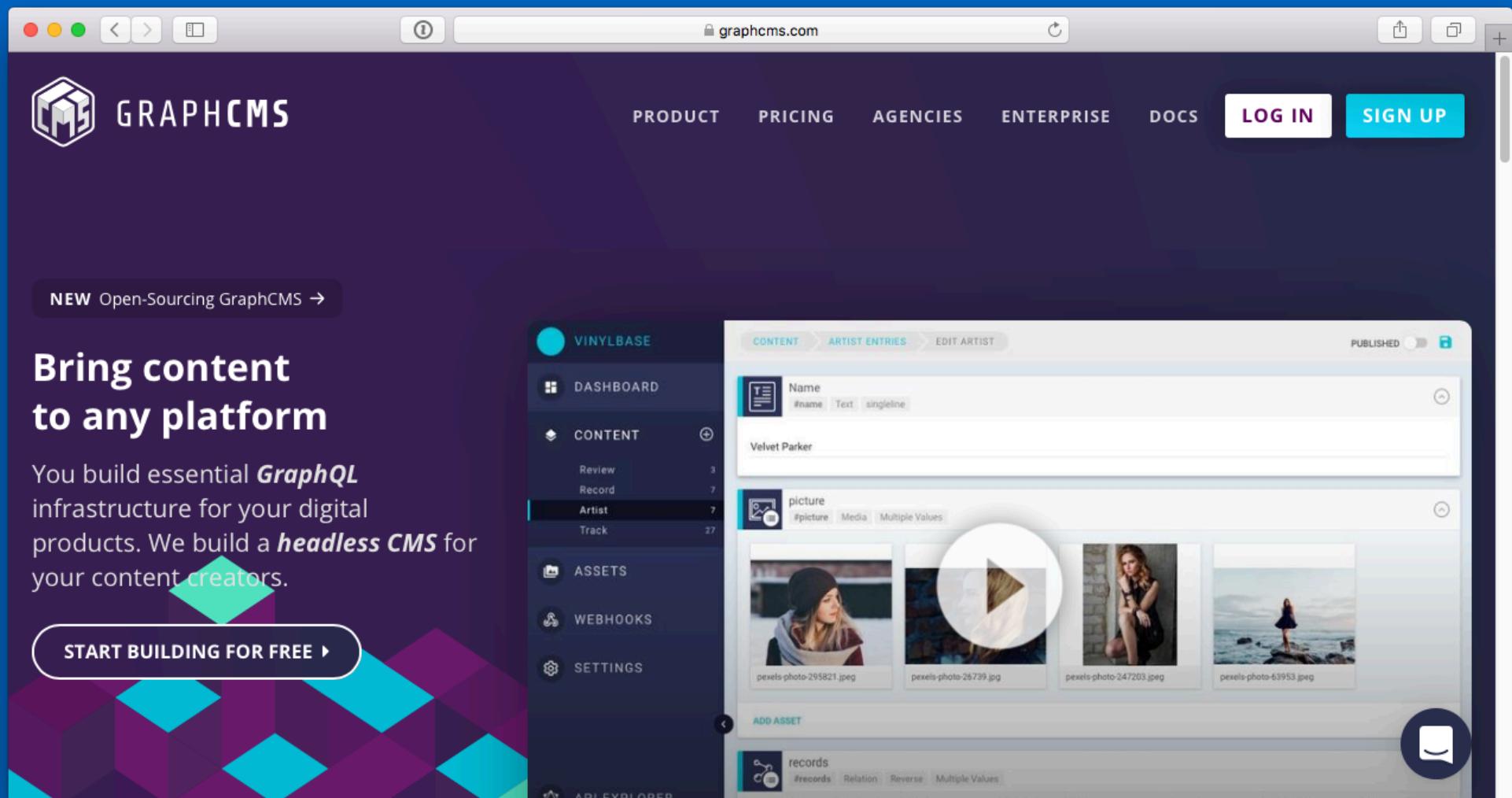
O Content, where art thou?

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

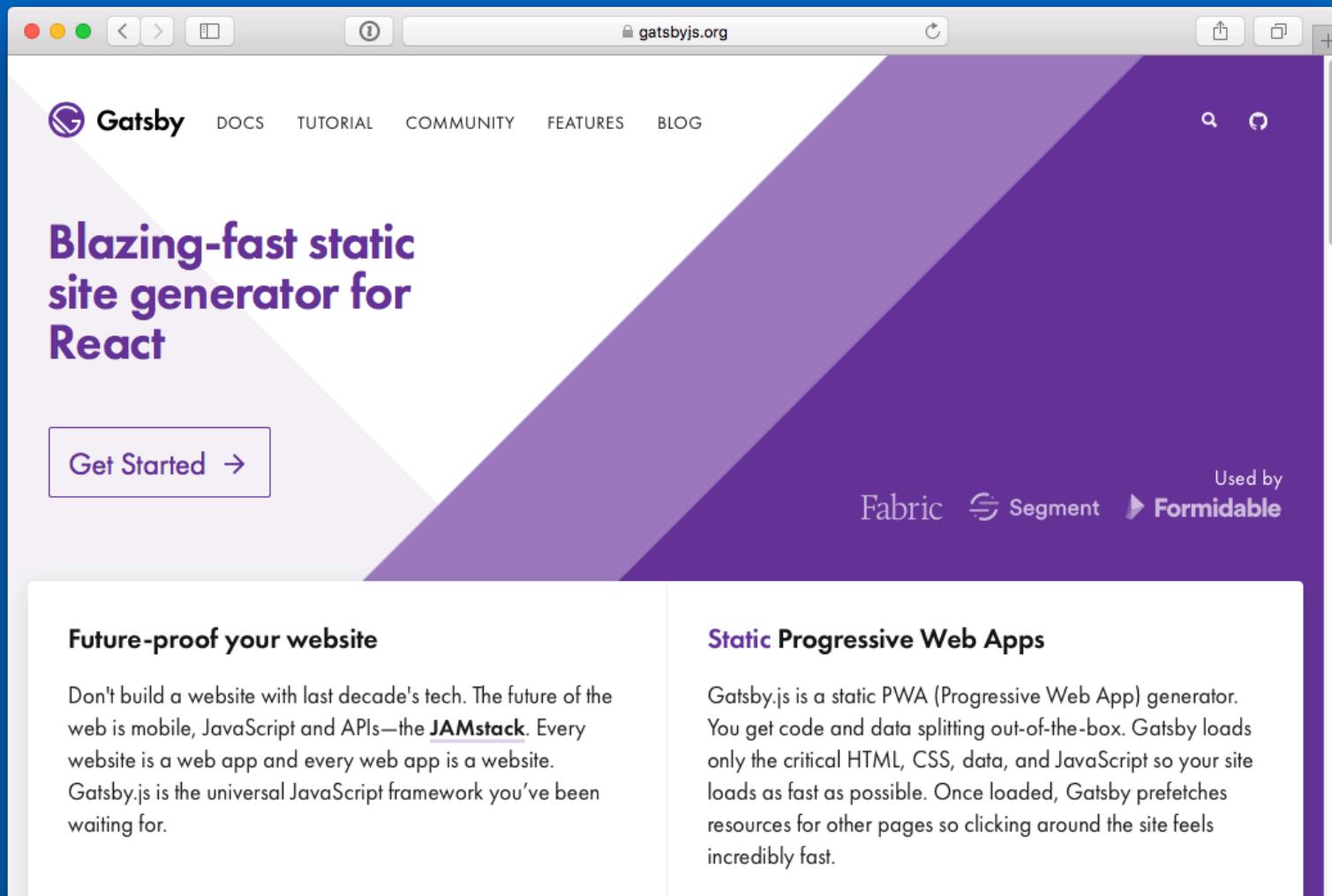
1. Proliferation of content repository APIs adds overhead for developers to learn about the **semantics** of the API
2. One API to rule them all?



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?!



Why headless CMS?



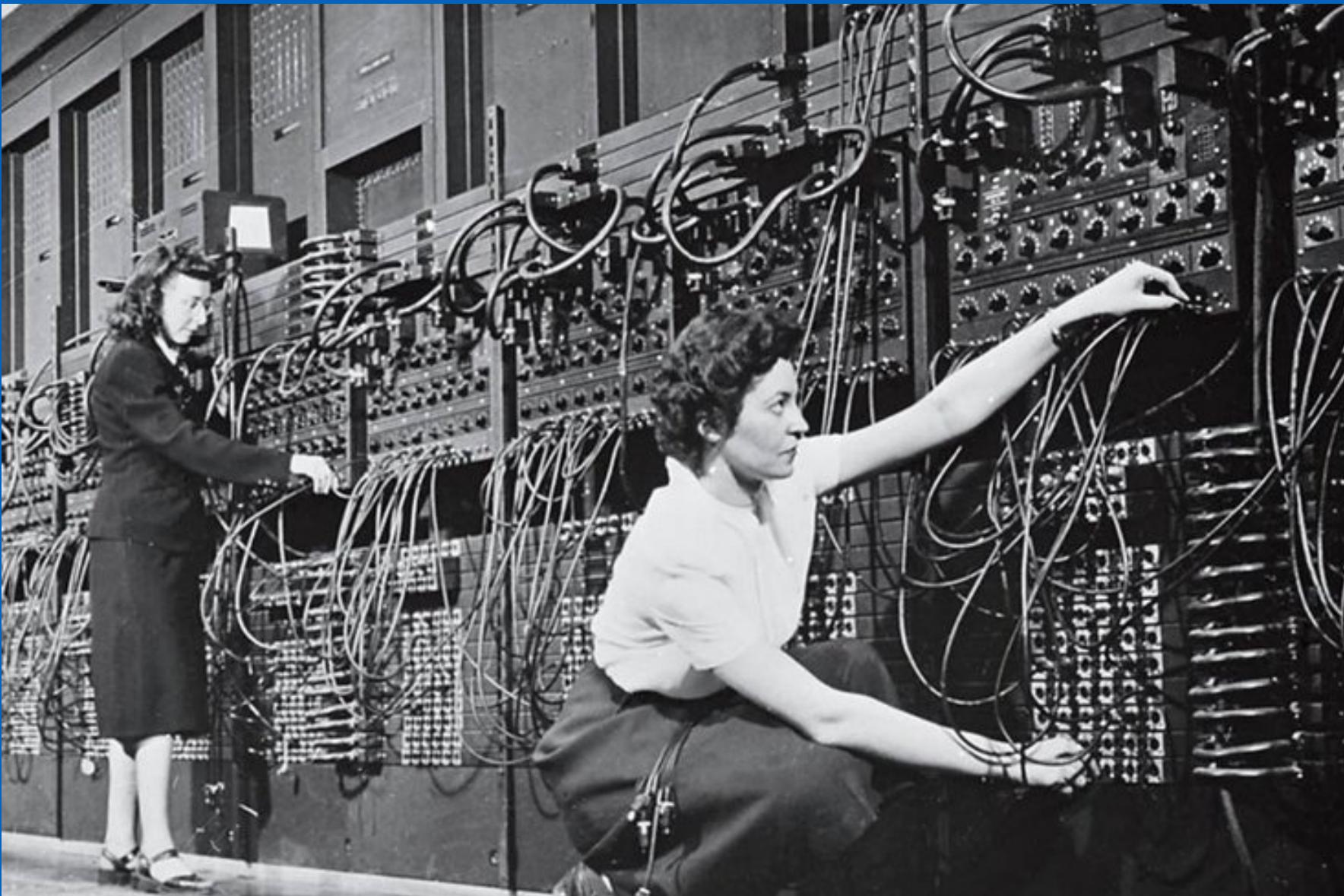
Computers



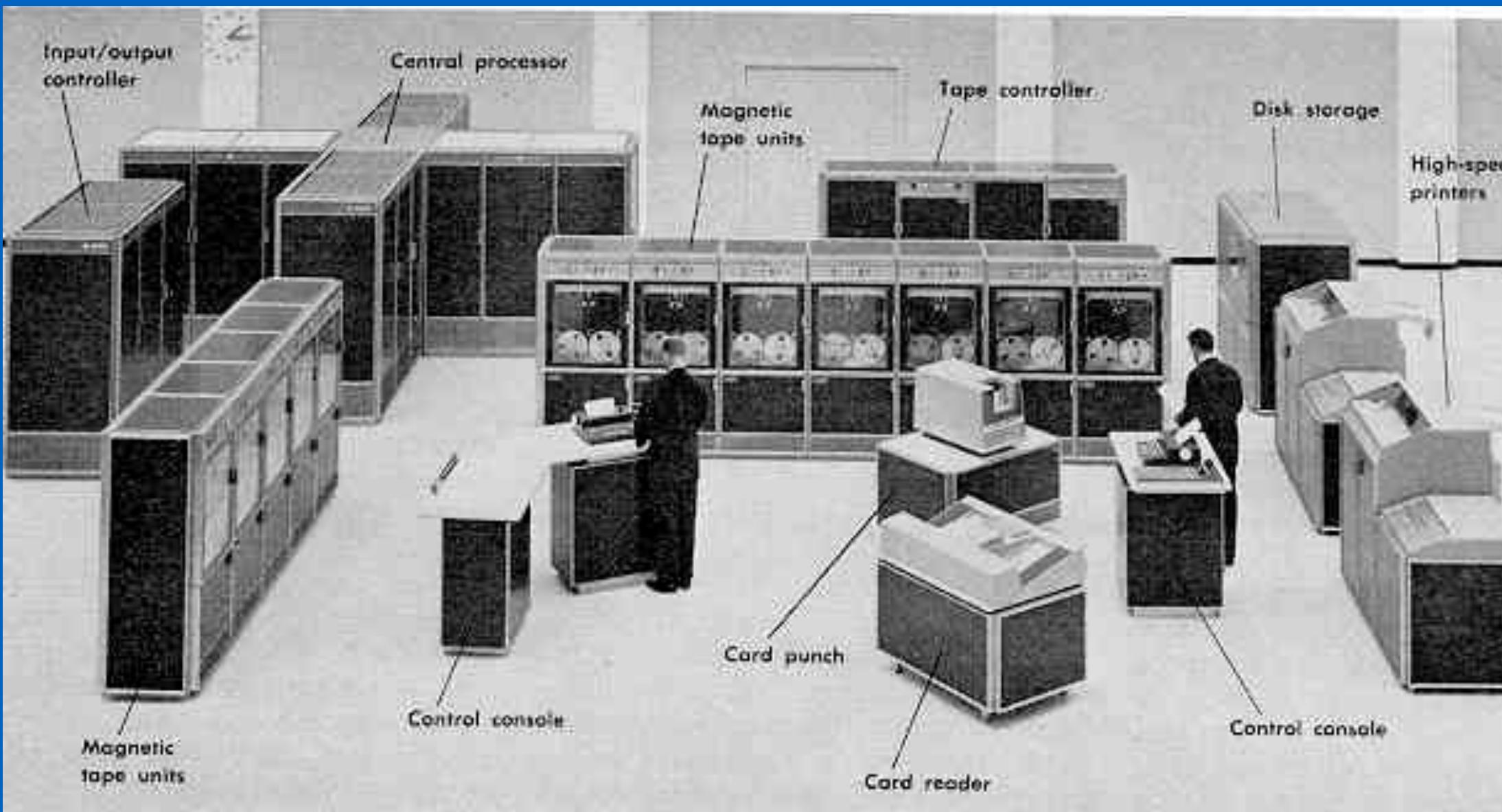
"I think there is a world market for maybe five computers."

– Thomas J. Watson, president of IBM, 1943

Computers?



Computers?



Computers?



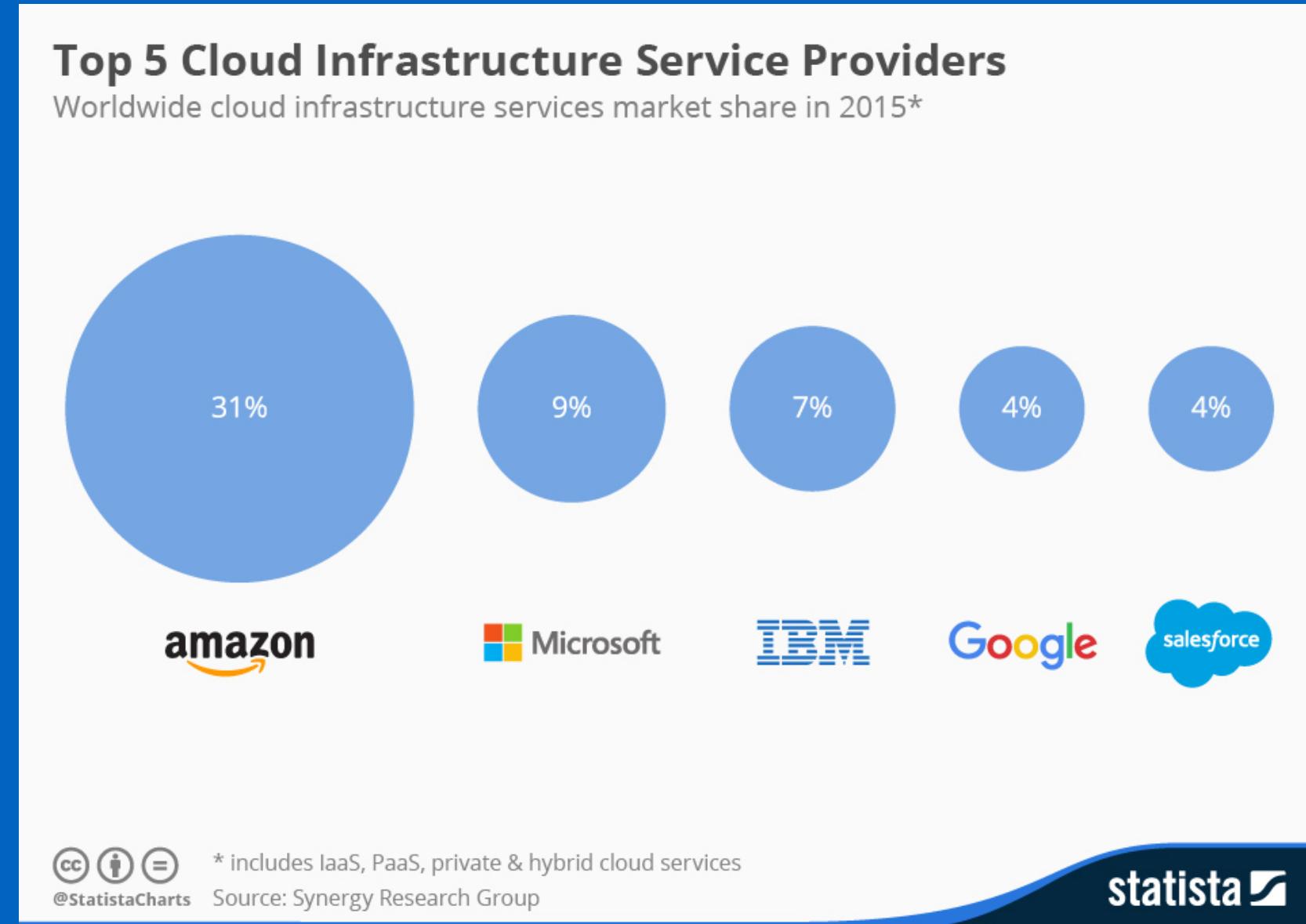
Computers?



Computers?



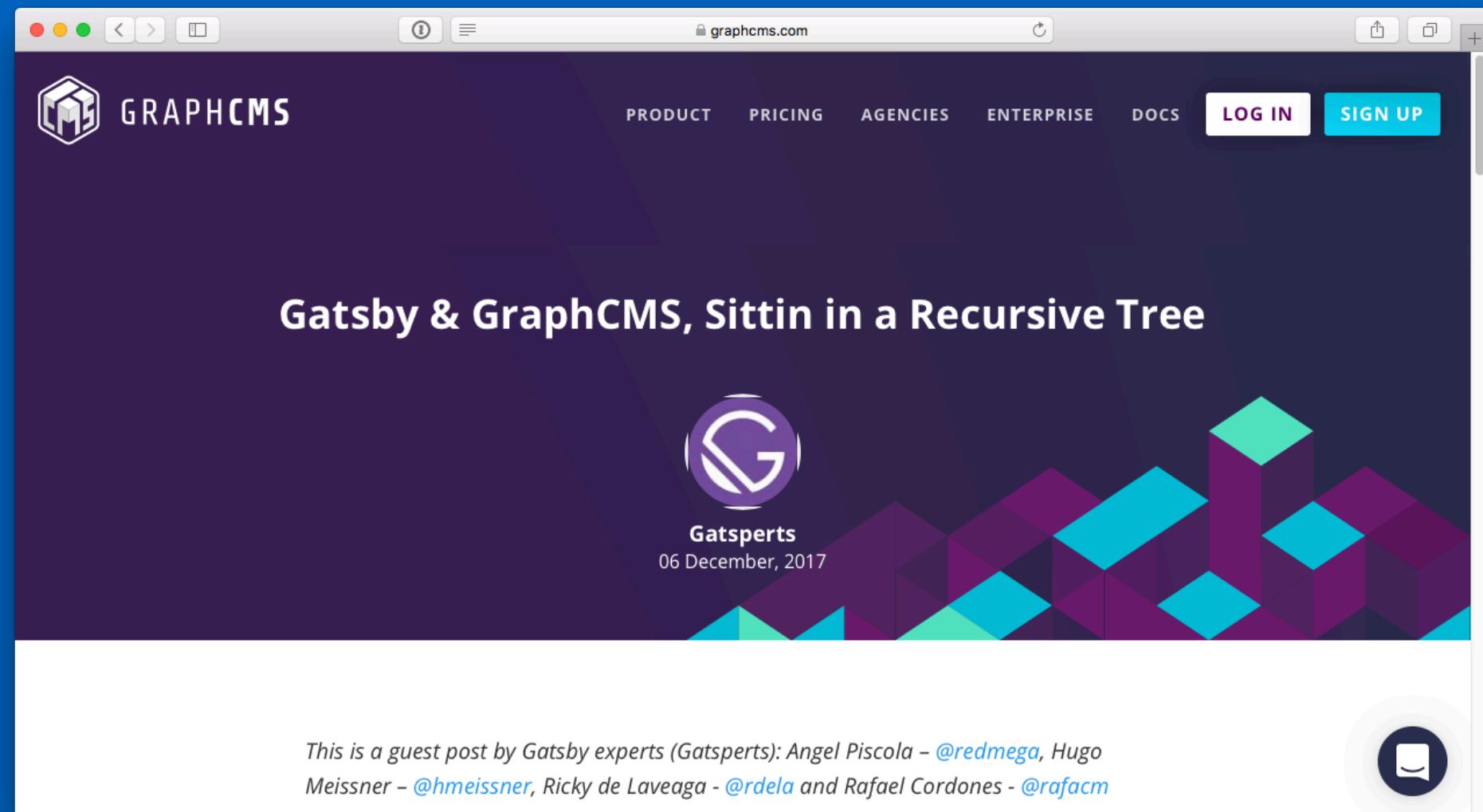
Computers?



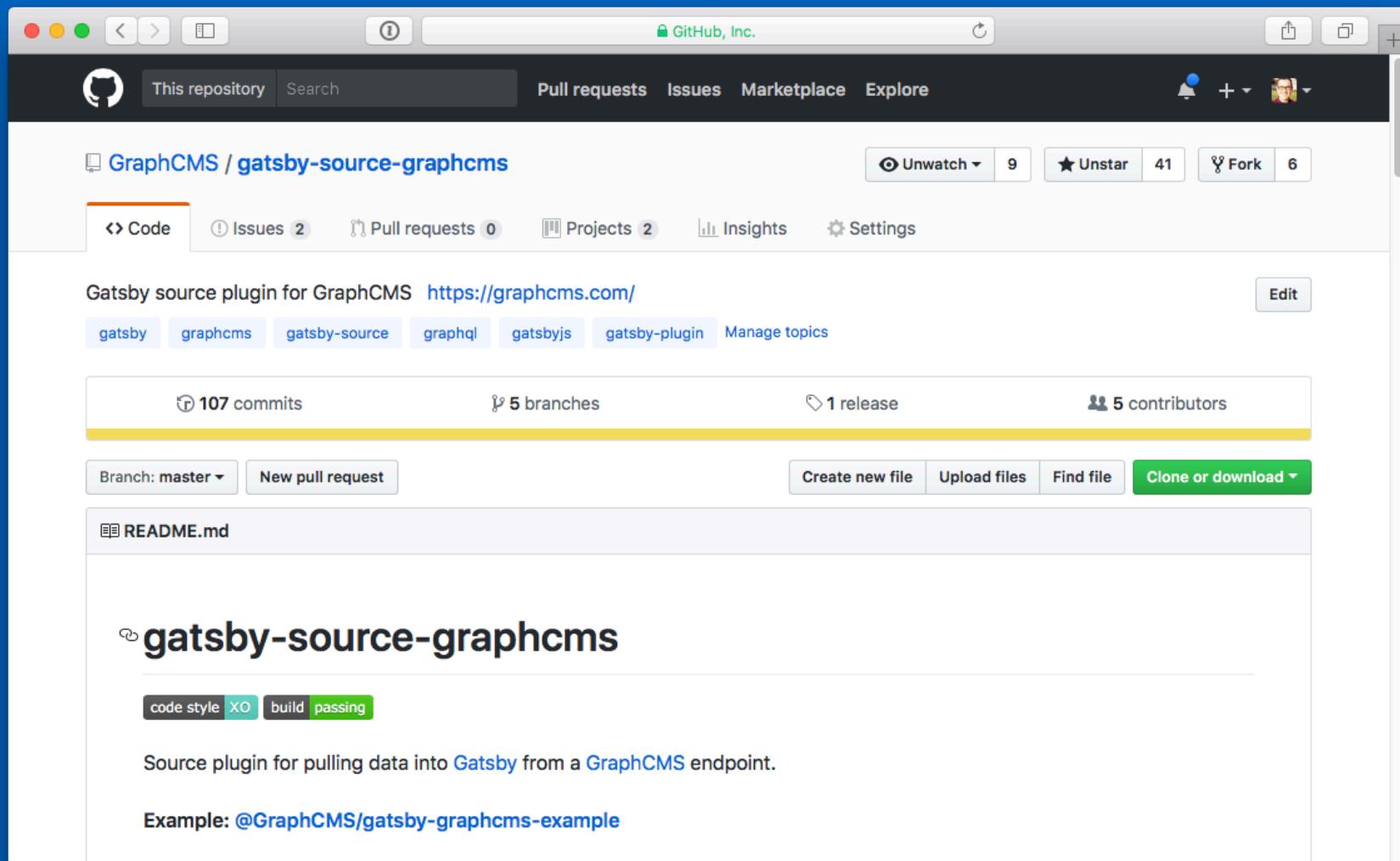
5 Computers!



GatsbyJS GraphCMS Plugin



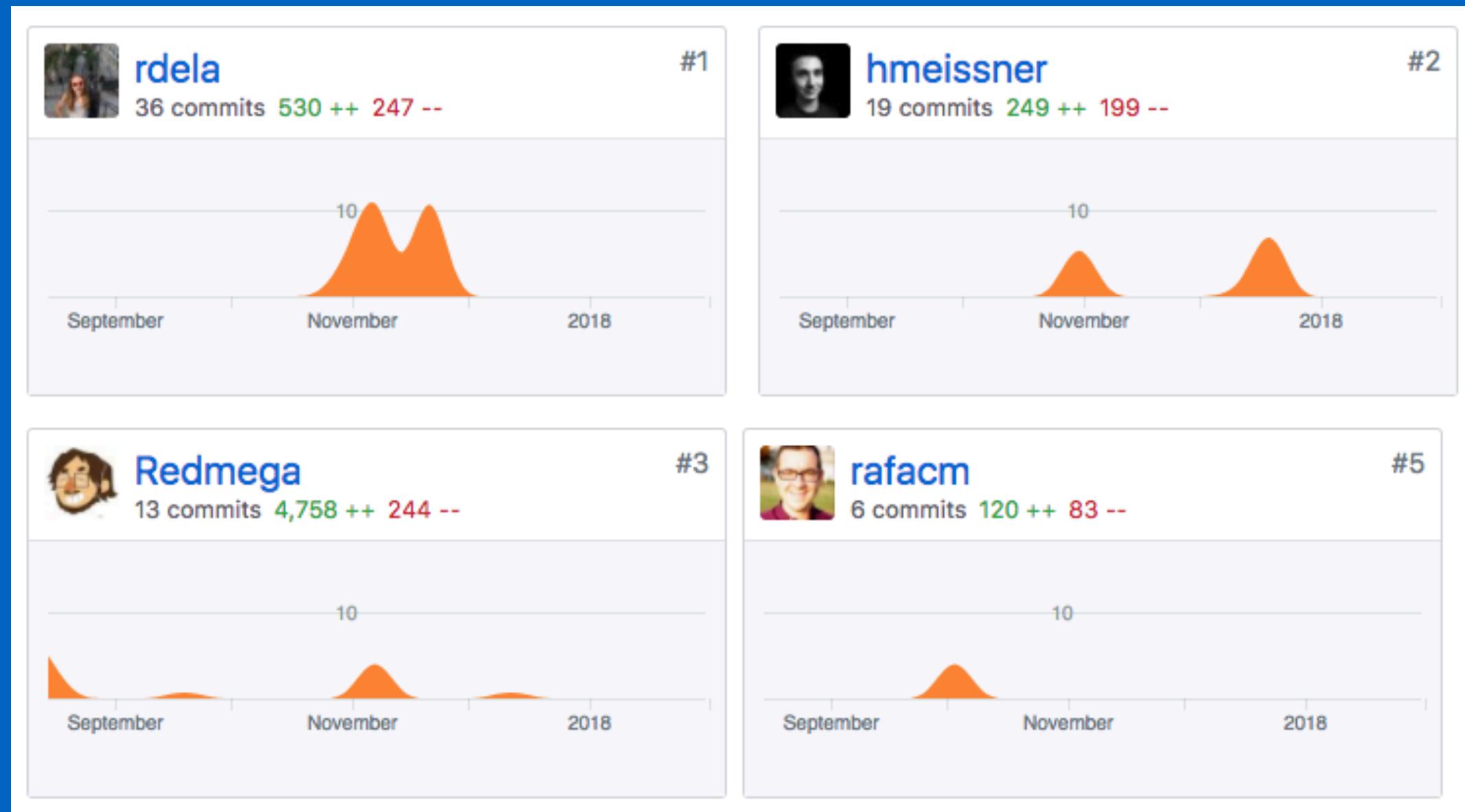
GatsbyJS GraphCMS Plugin

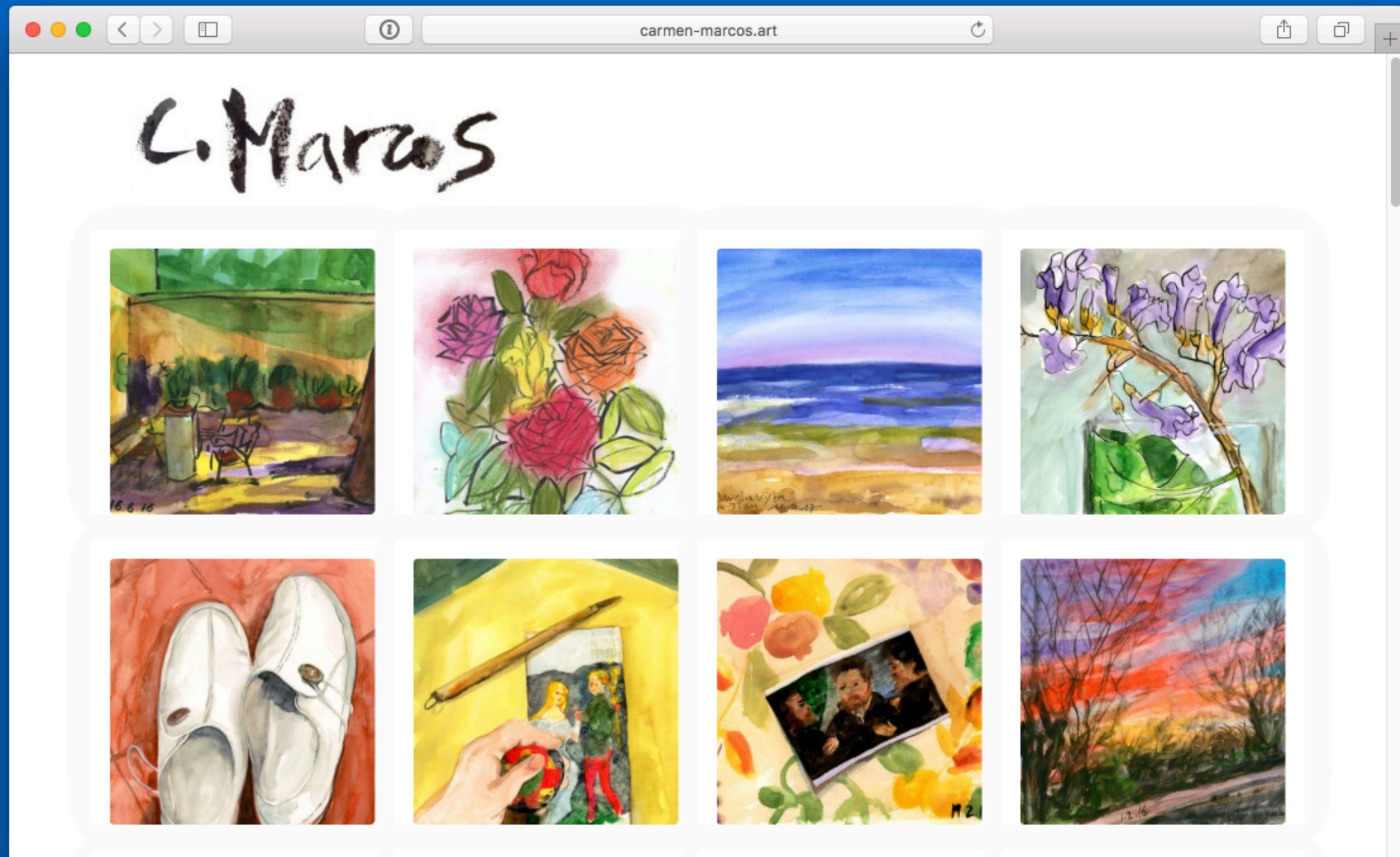


GatsbyJS GraphCMS Plugin

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 repository has 23 commits, 1 branch, 0 releases, and 1 contributor. The latest commit was 4 days ago. The repository is licensed under MIT.

Code | Issues 0 | Pull requests 0 | Projects 0 | Wiki | Insights | Settings

Carmen Marcos Website powered by GatsbyJS <https://carmen-marcos.art>

Add topics

23 commits | 1 branch | 0 releases | 1 contributor | MIT

Branch: master | New pull request | Create new file | Upload files | Find file | Clone or download

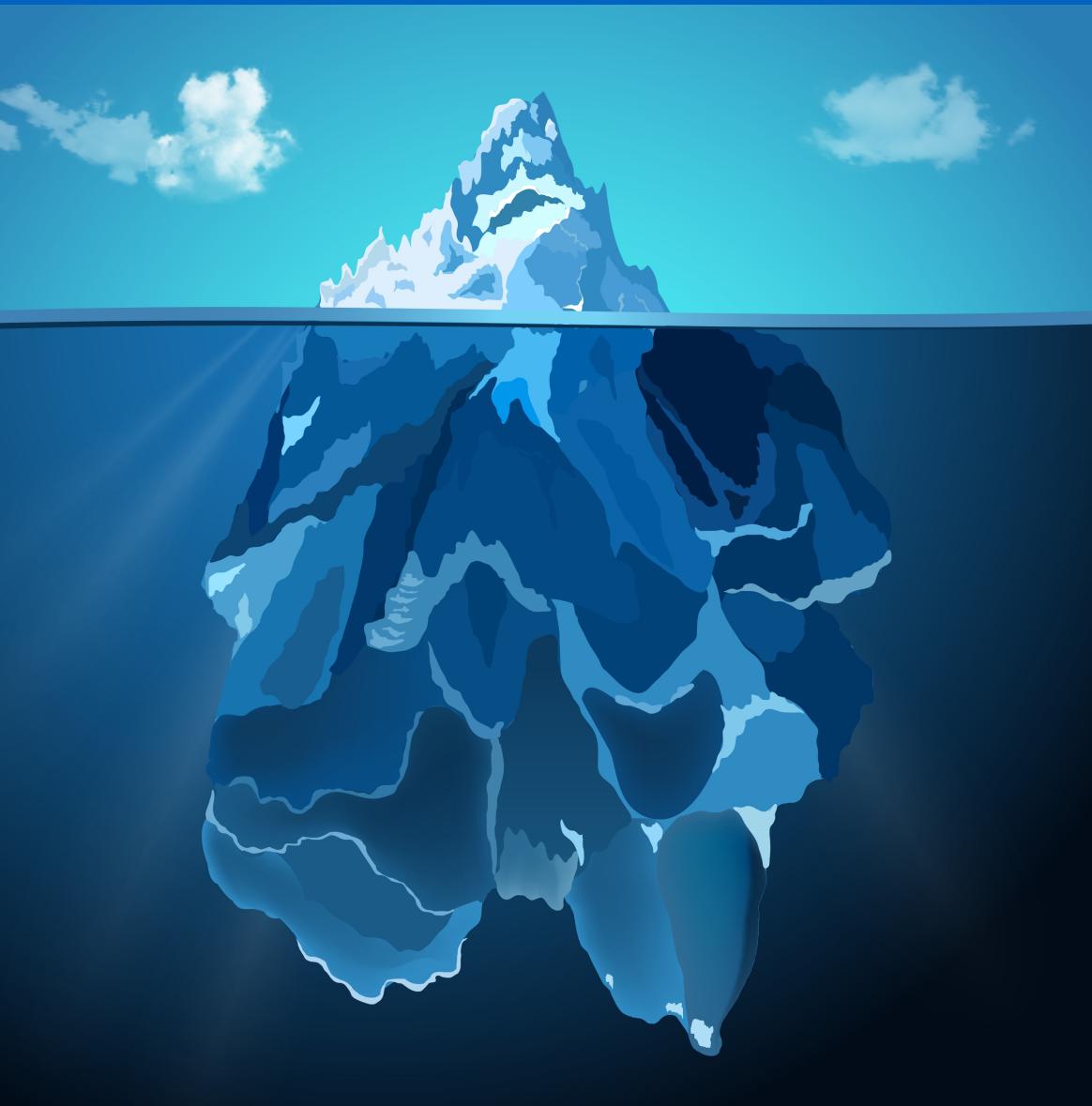
| Commit | Message | Date |
|---------------------------------------|------------------------------------------|--------------|
| rafacm Resize work detail page images | Latest commit 0054dd3 4 days ago | |
| src | Resize work detail page images | 4 days ago |
| .babelrc | Spike: front-page showing featured 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)