Content Management Systems are not application platforms

By Rouven Wessling

How I became convinced that content needs to be nothing but an API.

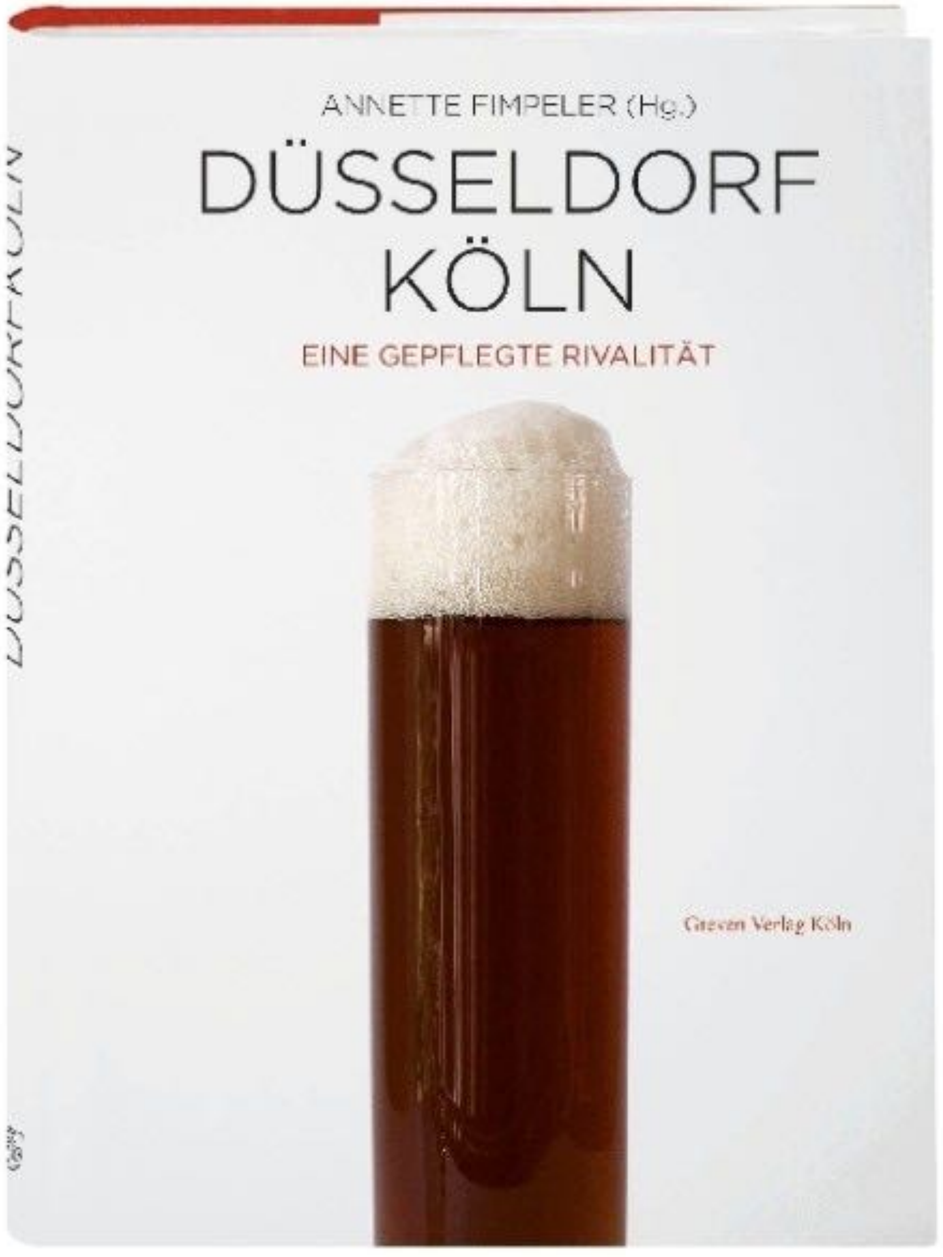
Hi, I'm Rouven

Developer Evangelist, lover of APIs and cake

@RouvenWessling

LETZTER FC
KÖLN

Düsseldorf 😍
Photo by Yusuf Evli on Unsplash

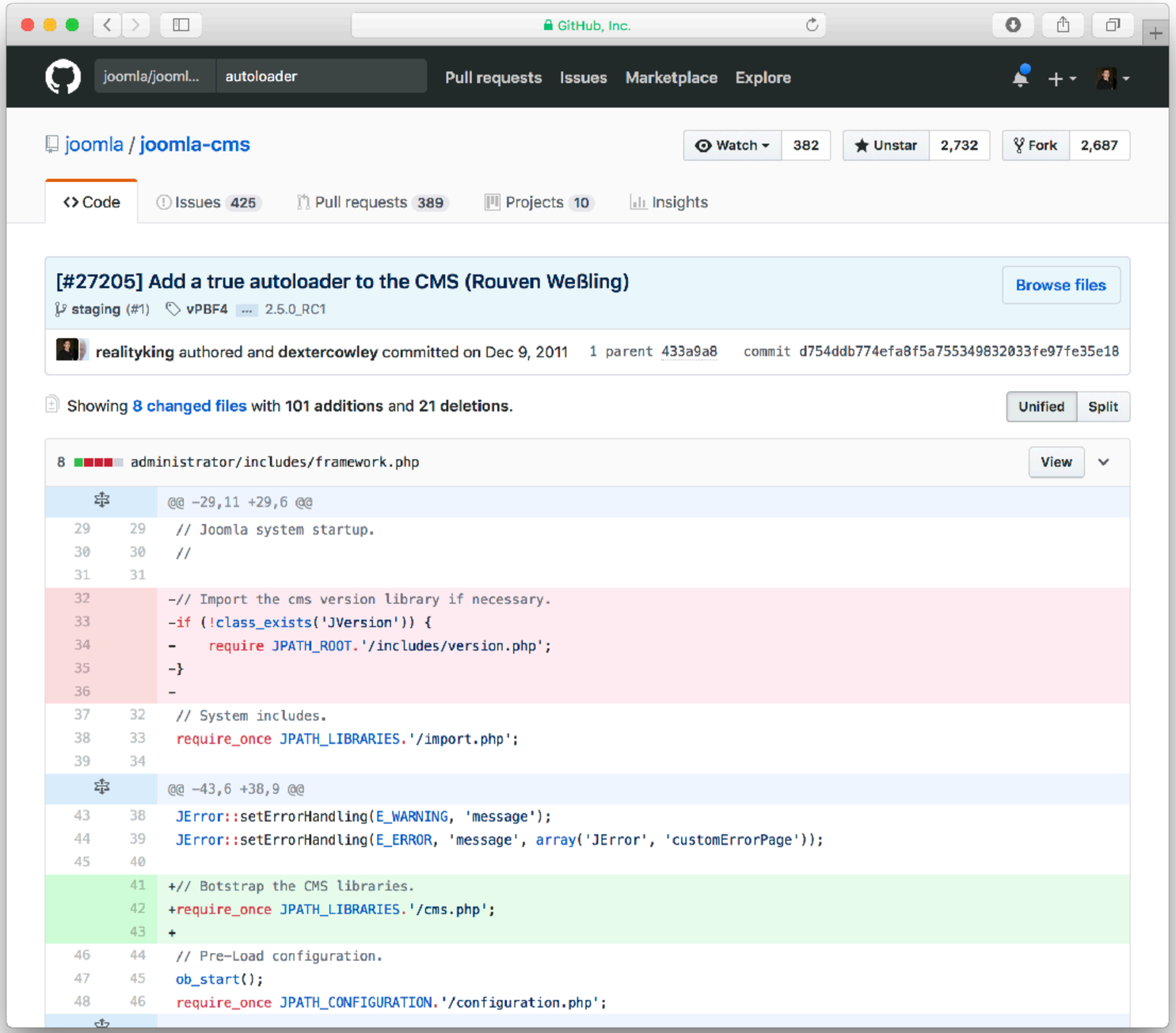

ANNETTE FIMPELER (Hg.)
DÜSSELDORF
KÖLN
EINE GEPFLEGTE RIVALITÄT
Greven Verlag Köln
DÜSSELDORF KÖLN

So wird KÖLSCH gebraut.

I have a history here...

In 2010 I started contributing to Joomla!
to get help get 1.6 released

I stayed a while longer

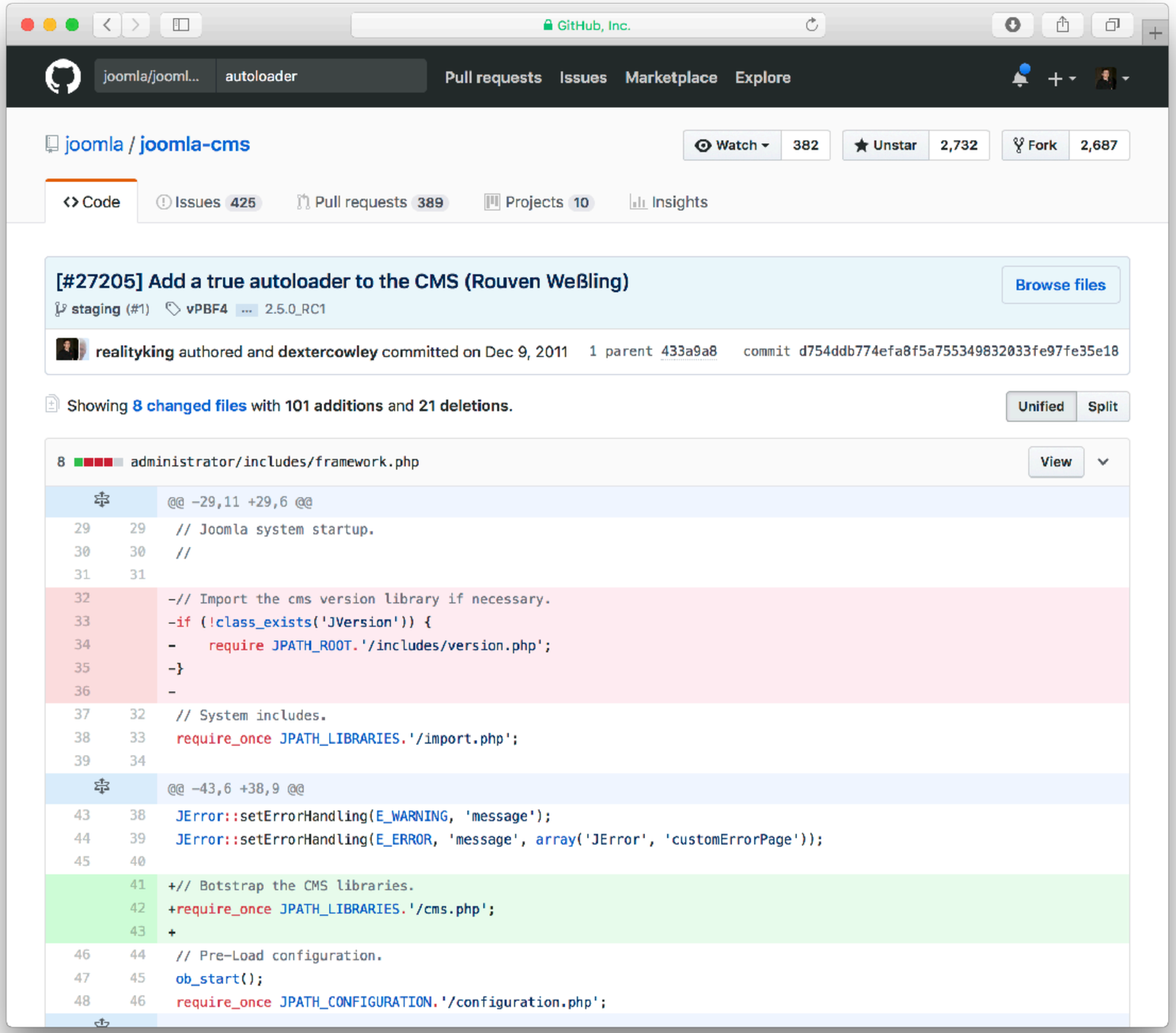


PHP Autoloading

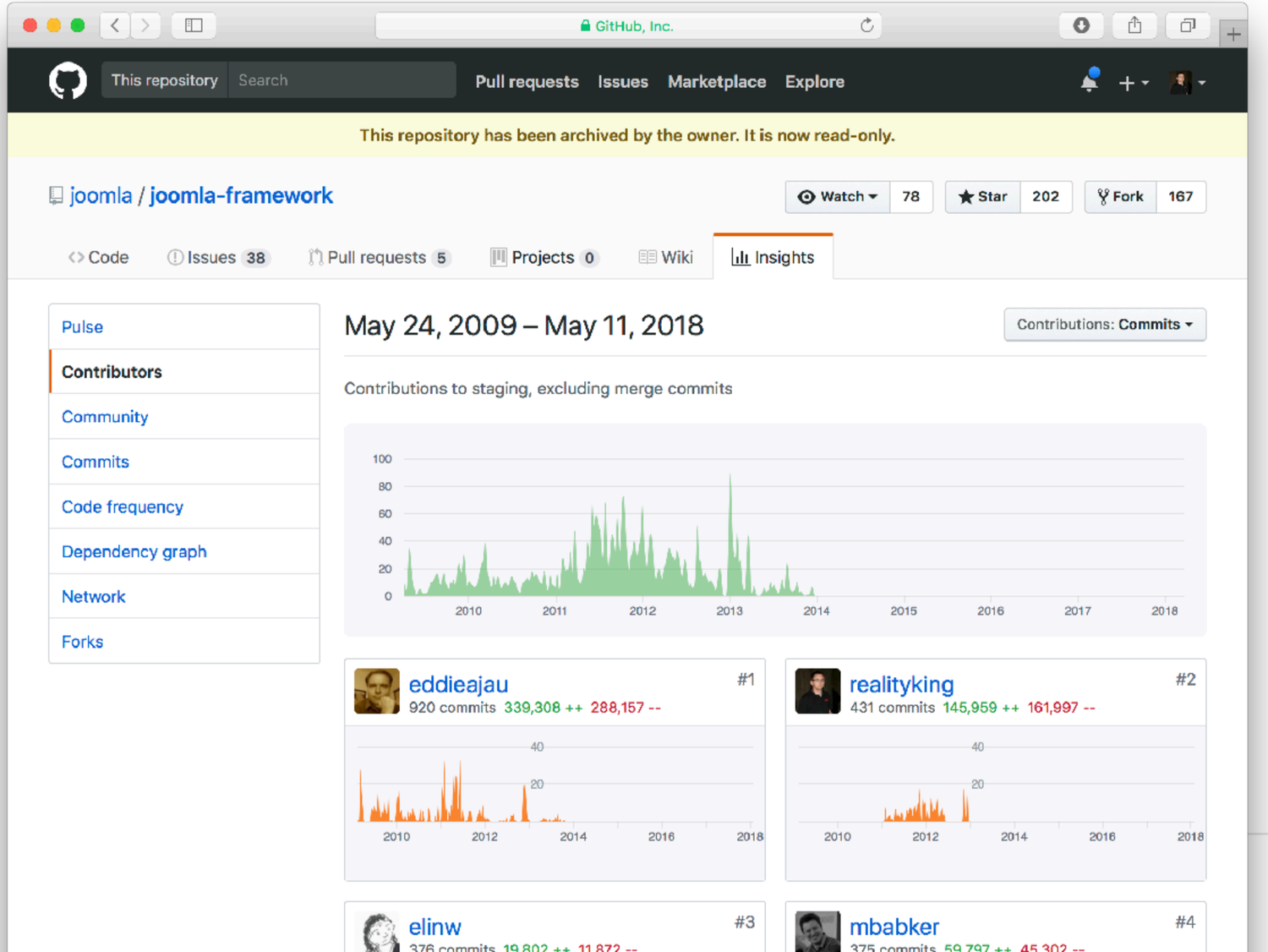
Released with Joomla! 2.5

AJAX Installer

Released with Joomla! 1.7.3



Joomla Platform/Framework



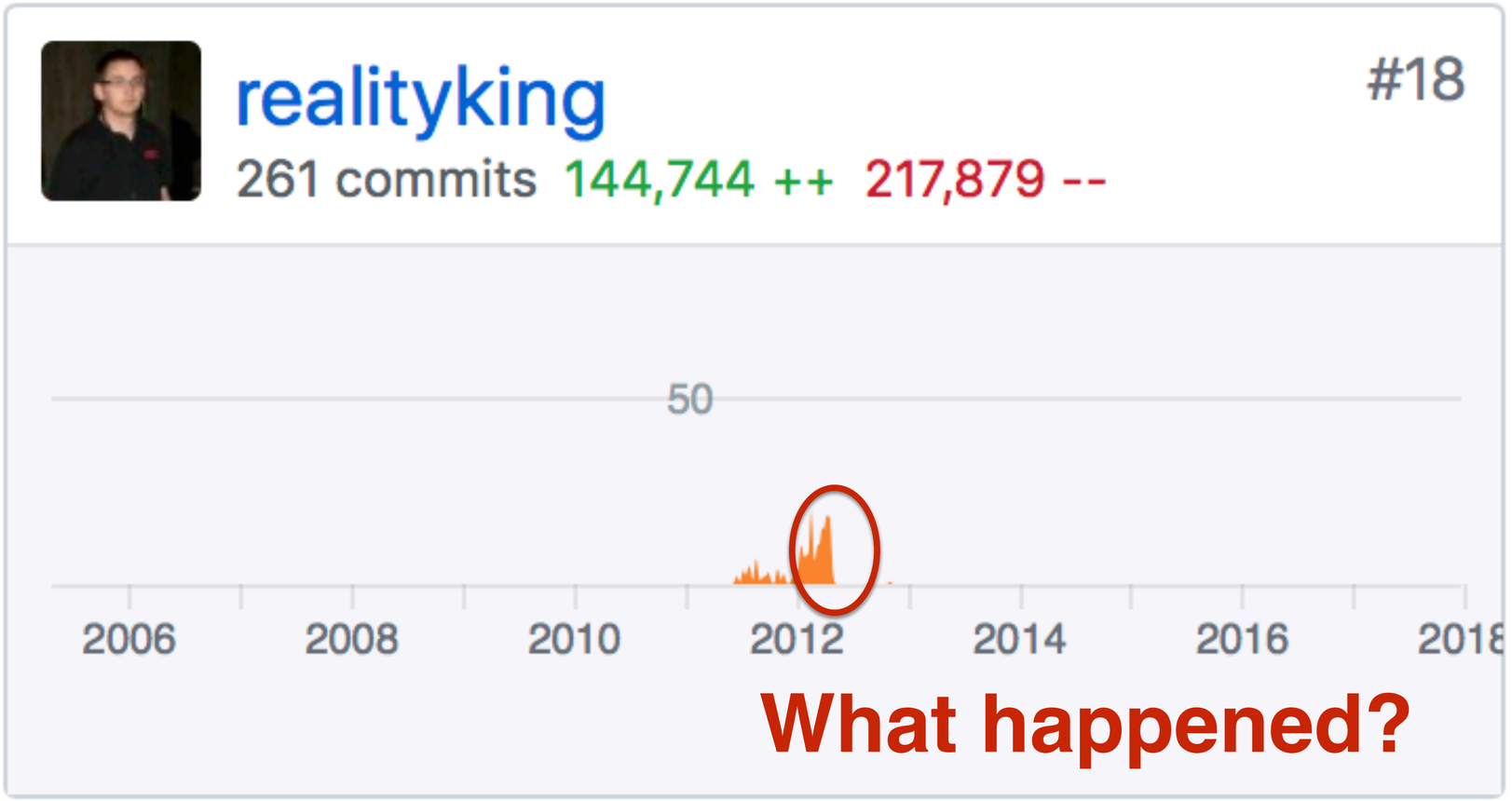
Change in philosophy

SESSION

What is the Joomla Framework and why do we need it?

SPEAKER

Rouven Wessling


realityking
#18
261 commits 144,744 ++ 217,879 --
50
2006
2008
2010
2012
2014
2016
What happened?

I burned out

Photo by Nick Fewings on Unsplash

I care about building kick-ass tools for developer

The Joomla! community felt differently

Photo by Mantas Hesthaven on Unsplash

“I love my CMS!”
said no developer
ever.

yourecards
someecards.com

Why do many developers hate CMSs?

Security/maintenance cost

Rigid extension/ templating system

Setting up environments is hard

ThoughtWorks®

"We are seeing too many organizations run into troubles as they attempt to use their CMS as a platform for delivering large and complex digital applications."

- ThoughtWorks Technology Radar

Enter the

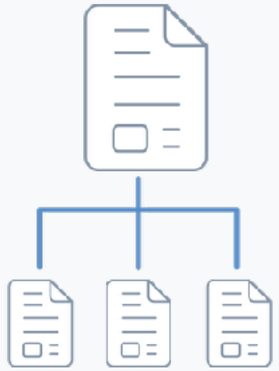
~~Decoupled CMS~~
~~API-first CMS~~
~~Headless CMS~~

Content Infrastructure

Content Management Systems
are ~~not~~ shitty application platforms

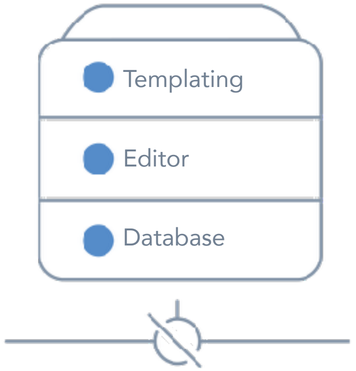
Today's CMS

Page-centric model



SILOED CONTENT

Monolithic architecture



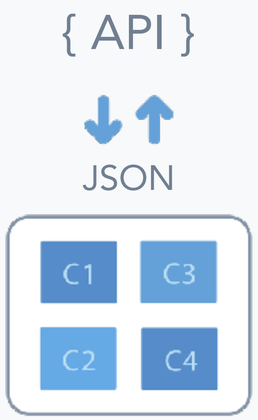
Coupled to the CMS' platform

Hard to change

DISCONNECTED

Content Infrastructure

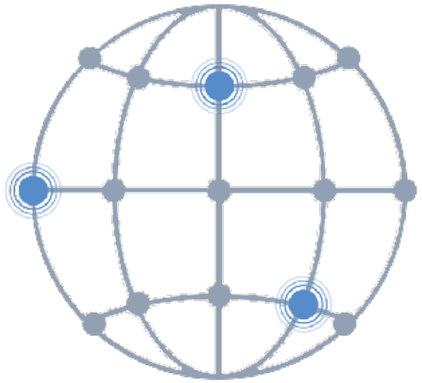
Structured content



Independent of

medium and platform

Microservice architecture



COMPOSABLE

Changes with your software

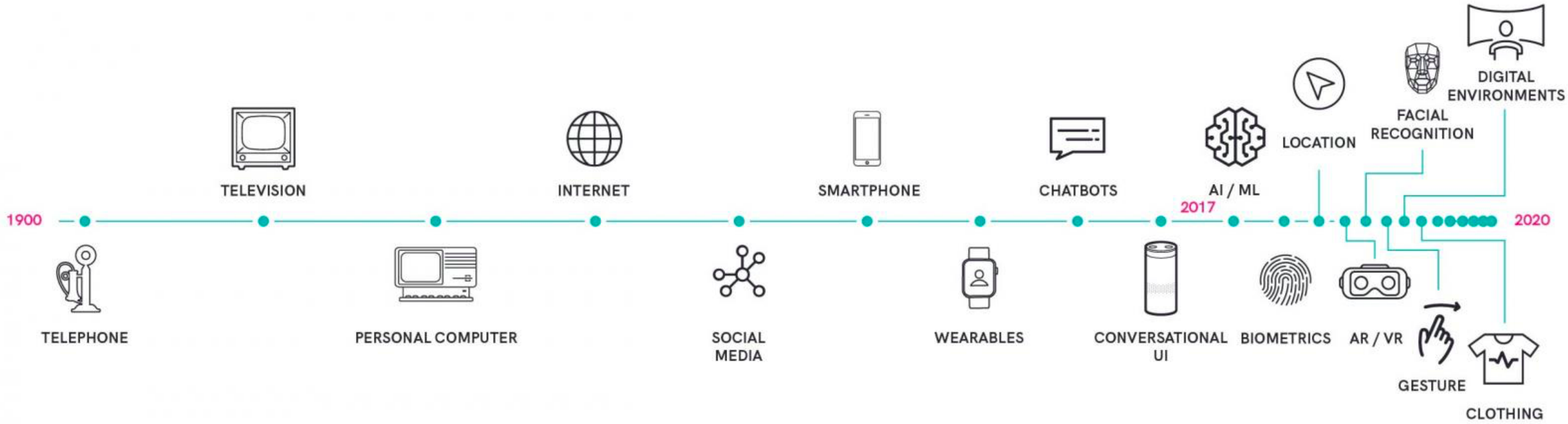
AGILE

“I don’t necessarily know where this content is going to live. I don’t know how it’s going to be used in the future. But, I do know that I have to create lots of flexible content that has metadata attached to it because I know it’s going to be reused in different places.”

Karen McGrane,
Author of “Content Strategy for Mobile”

Deliver content to any platform, not only websites

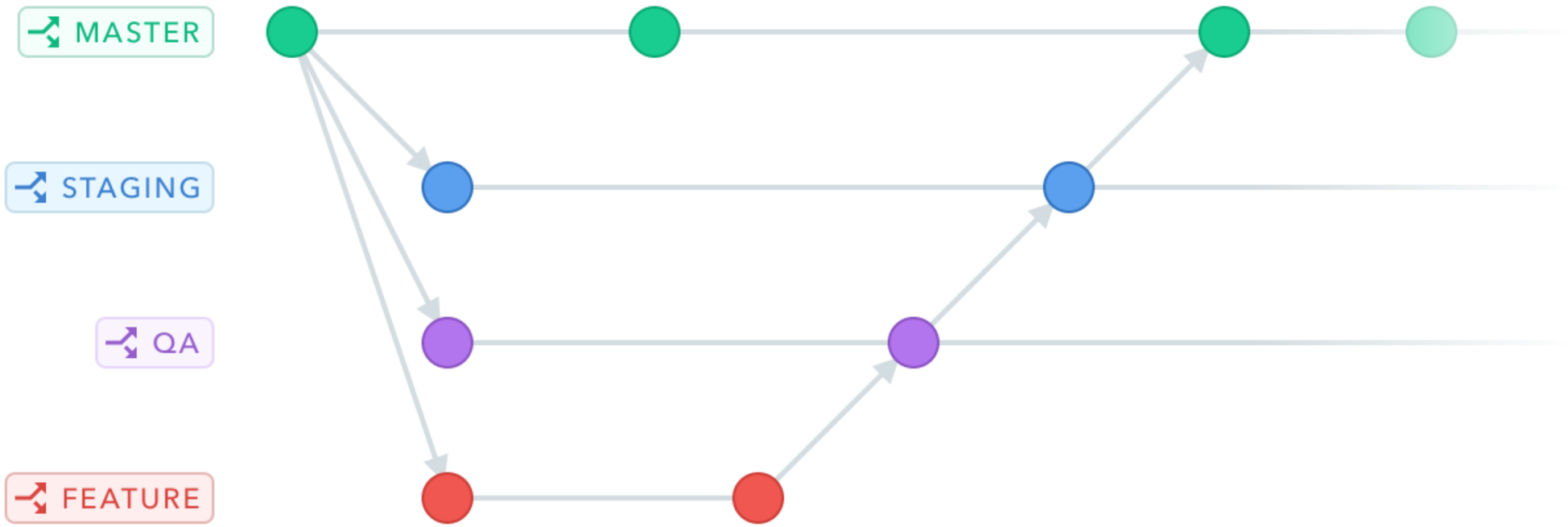
Even to platforms not yet invited… the landscape is evolving with an ever increasing pace



“TELUS Digital is very proud of our engineering culture enabled by a modern technology stack and delivery automation. Decoupling content from code was a big win ushering extreme organizational agility and drastically increasing our speed-to-market on key marketing & delivery initiatives.”

Andrew Kumar
Sr. Technical Program Manager, TELUS

Integration with the dev-flow is key for fast moving teams



“Editors get a CMS;
Developer don’t
have to deal with one.”

contentful
Don’t let a CMS get in the way of shipping software.
Contentful provides a content infrastructure that enables teams to power content in any digital product.

The missing layer of the modern stack

SendGrid
Email

twilio
SMS + Voice

Optimizely
Experiments

contentful
Content

Specialized cloud platform services simplify development

OPENSHIFT by Red Hat

Platform as a Service (PaaS)

HEROKU

amazon web services

Infrastructure as a Service (IaaS)

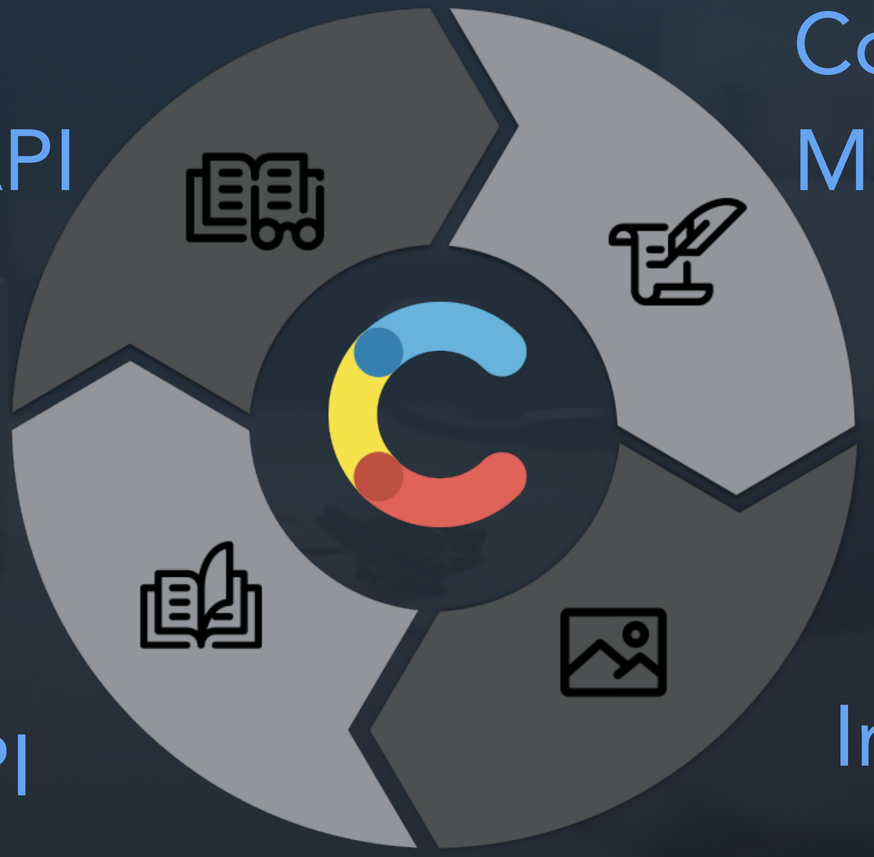
Azure

PaaS and IaaS lay the foundation for building websites & apps

4 APIs are at the foundation of Contentful

Content
Delivery API

Content
Management API

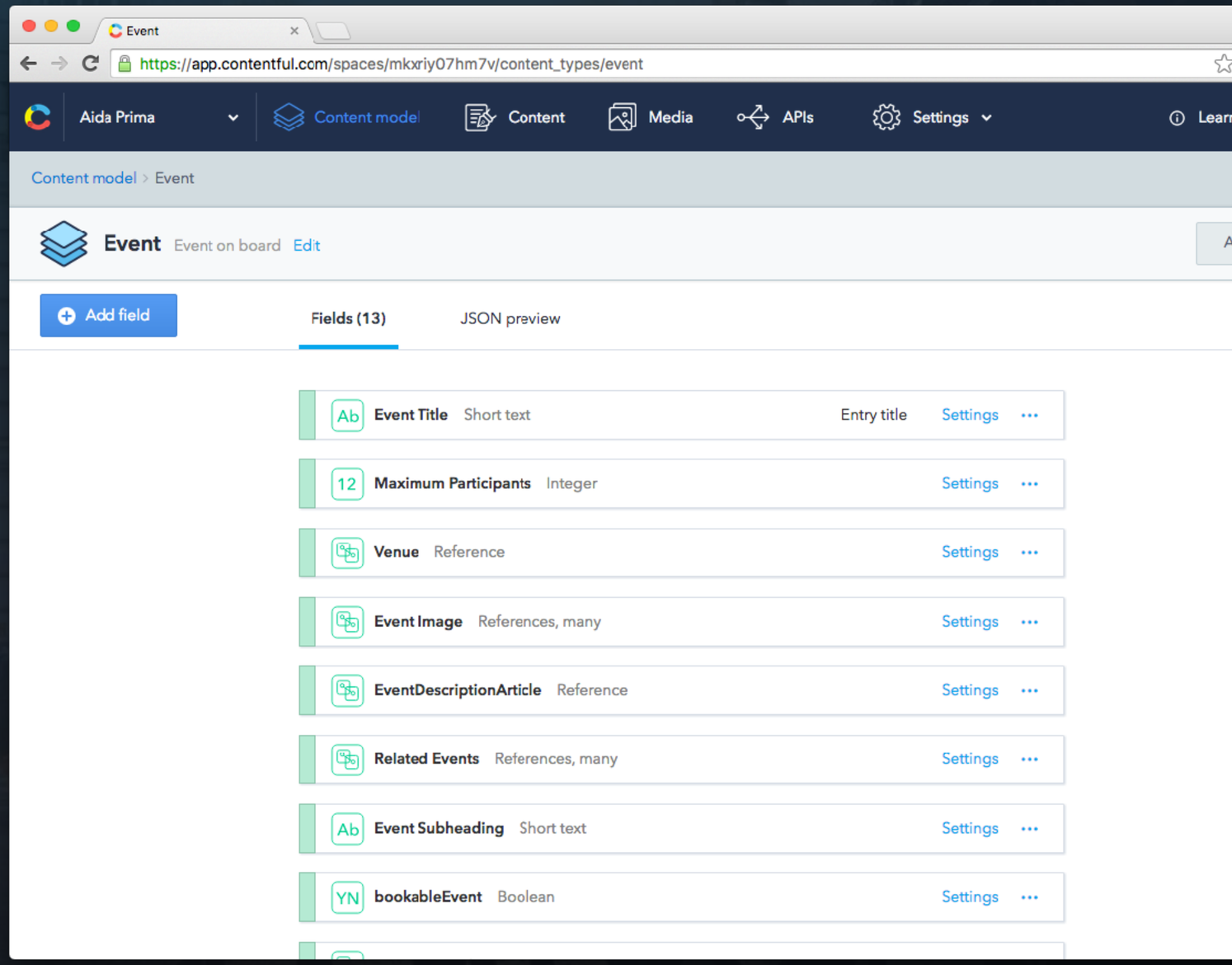


Content
Preview API

Images API

The Web App

- Management of Content for author
- Management of the Platform for Administrators
- Management of the Content Model for Developers



Architecture

Flexible enough to handle any kind of digital product

Think outside the CMS box

smashbox

Chatbot with product recommendations

Optimizely

Multivariate testing

Learning academy

Microsites

AIDA CRUISES

Carnival

On-ship digital experiences: kiosks, displays, menus, etc.

Jack in the box

Super Bowl campaign

Employee training app

The British Museum

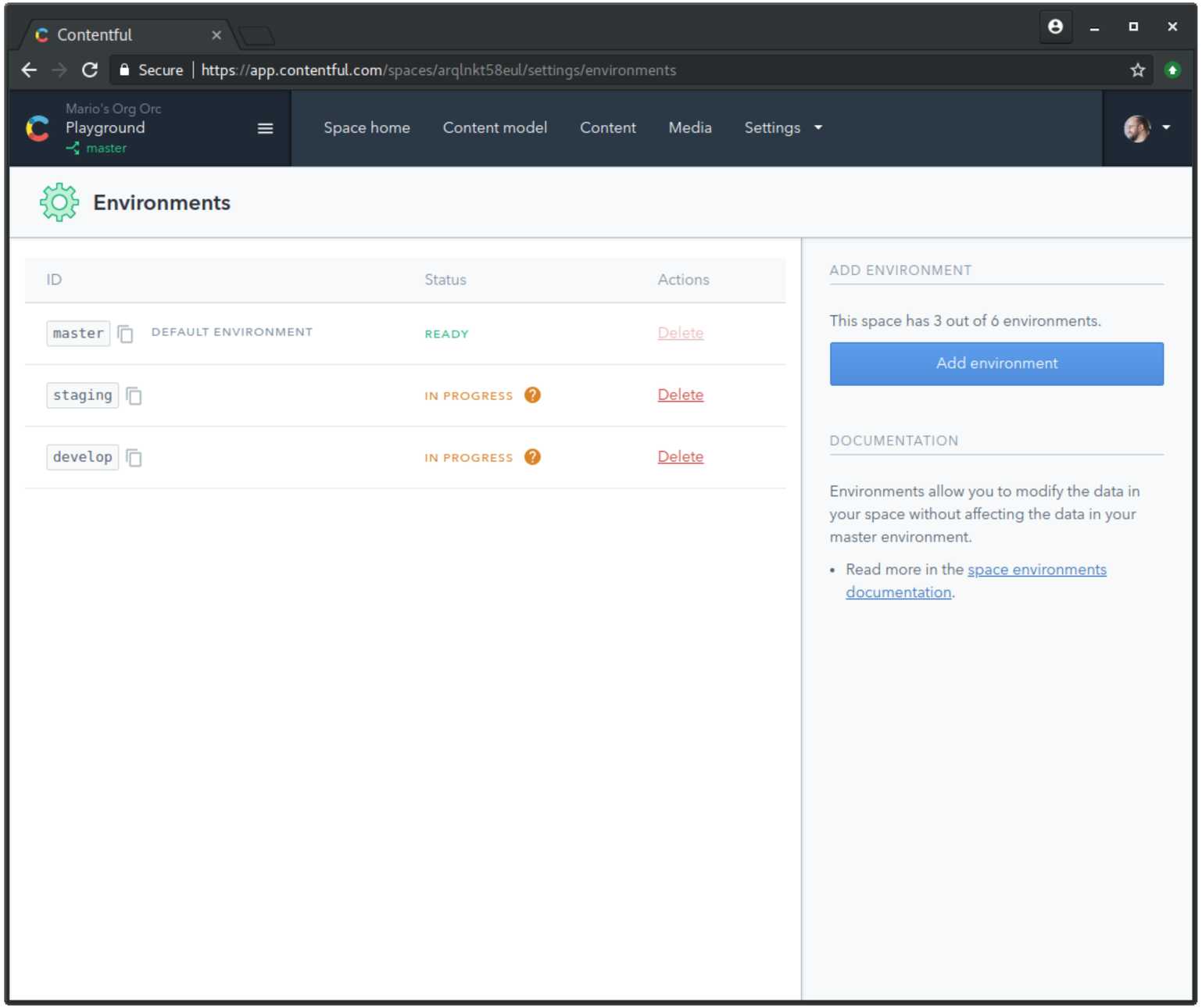
Audio guides

Interactive displays

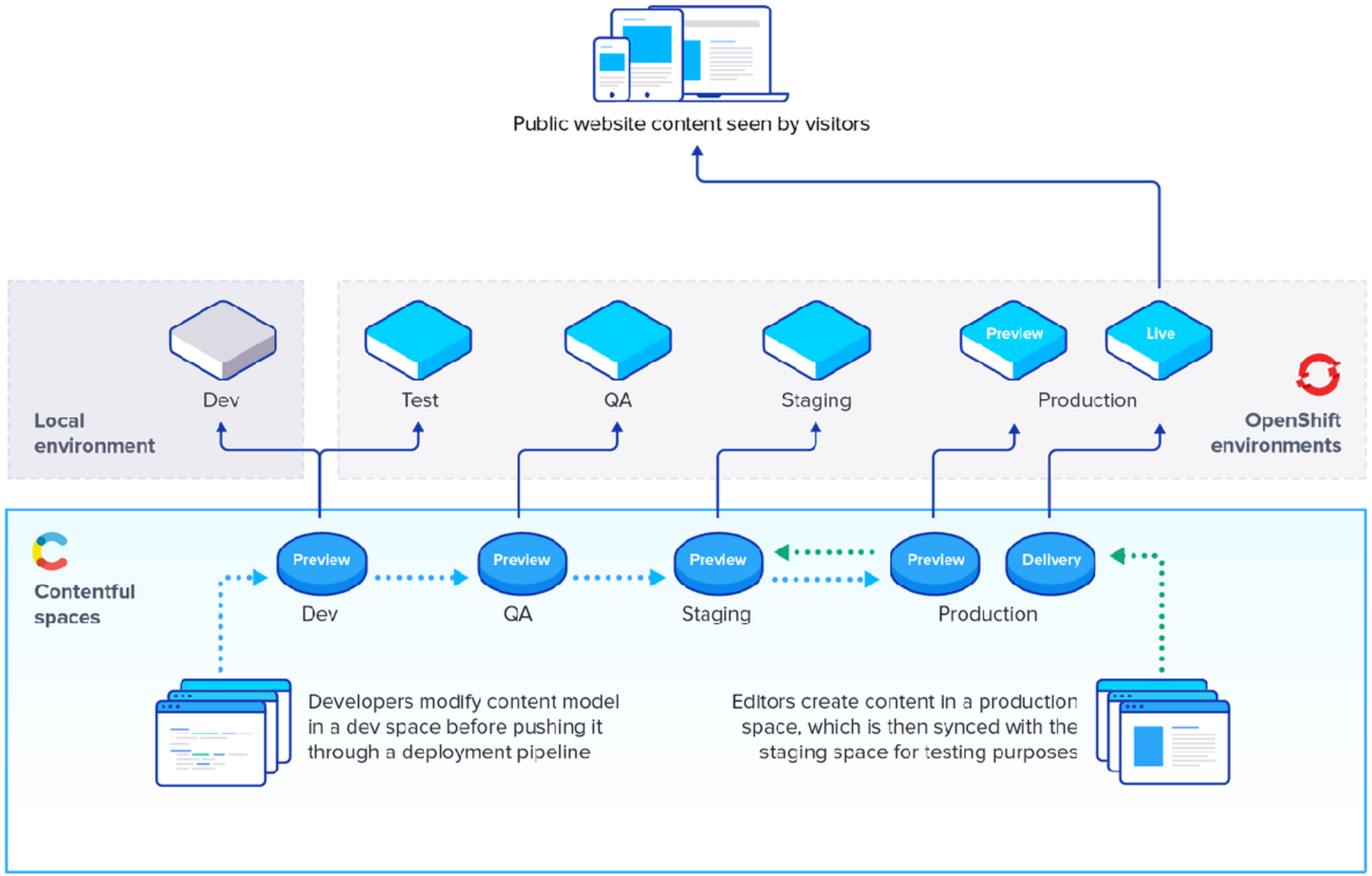
Immersive website

Workflows

Environments



Integration with the dev-flow is key for fast moving teams



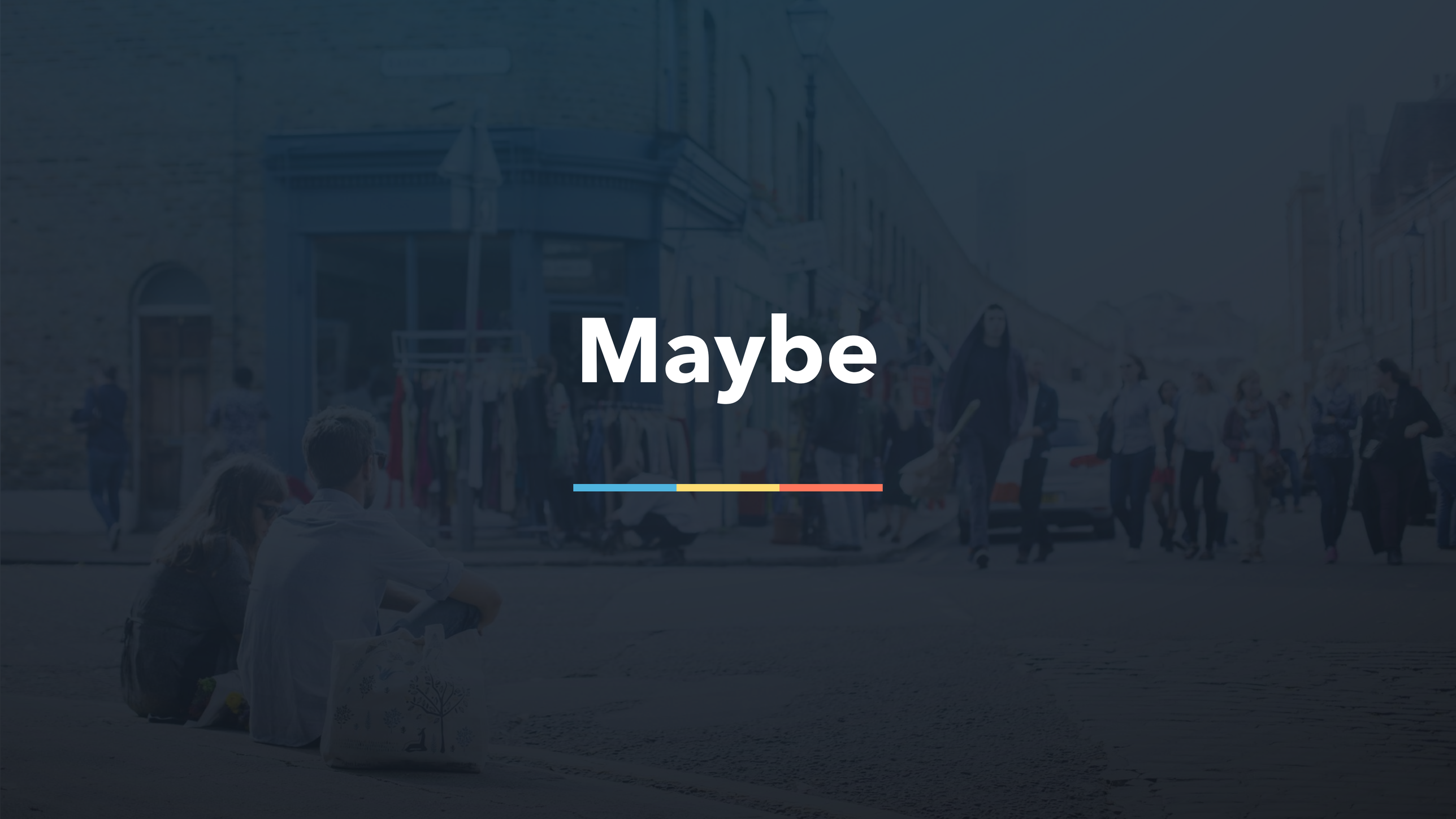
Migrations 🚚

```
module.exports = function (migration) {
    migration.deriveLinkedEntries({
      contentType: '1kUEViTN4EmGiEaaeC6ouY',
      from: ['profilePhoto', 'firstName', 'lastName'],
      toReferenceField: 'profilePhoto_new',
      derivedContentType: 'media',
      derivedFields: ['name', 'photo'],
      identityKey: async (from) => {
        return `${from.firstName['en-US']}-${from.lastName['en-US']}`
      },
      deriveEntryForLocale: async (from, locale) => {
        return {
          name: `${from.firstName[locale]} ${from.lastName[locale]}`,
          photo: from.profilePhoto[locale]
        }
      }
    });
};
```

Should Joomla! be a Content Infrastructure?

The Flexible Platform Empowering Website Creators

Don't let a CMS get in the way of shipping your software.


Maybe

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