Creating Websites with Hugo & R Markdown

Thomas Lo Russo

WHO AM I

Research Associate
Official Statistics & Open Government Data
Canton Zurich

Politics & Data-blogger (politan.ch)

@thlorusso

TWIST2018 - Hackdays Website

https://www.twist2018.ch/

The TWIST2018 - webpage

- Built with blogdown
- Customized hugo-theme to adapt it to event-purposes
- Deployed via github → Netlify

Why blogdown?

1. Because it allows you to create websites with R!
2. Embed R-code and examples in the blog posts on the page
3. Easy to maintain website & content

R
blogdown

=

HUGO = open source static website generator

https://gohugo.io/

Markdown

```
#twist-theme for hugo

You can find our hugo theme on github:

Check our
[Github-repo](https://github.com/openZH/hugo-theme-twist-massively)!
```

HTML

```
<h1>Twist-theme for hugo</h1>

<p>You can find our hugo theme on github.</p>

<p>Check our <a href="https://github.com/openZH/hugo-theme-twist-massively">Github-repo</a>!</p>
```

with **R Markdown** support

https://bookdown.org/yihui/blogdown/

How to get going

1. Install blogdown & generate new site

install.packages("blogdown)
new.site()

2. Configuration

Config.toml / data folder

3. Create content

your content → content folder

4. Publish

Publish & deploy (for example via netlify.com)

1.

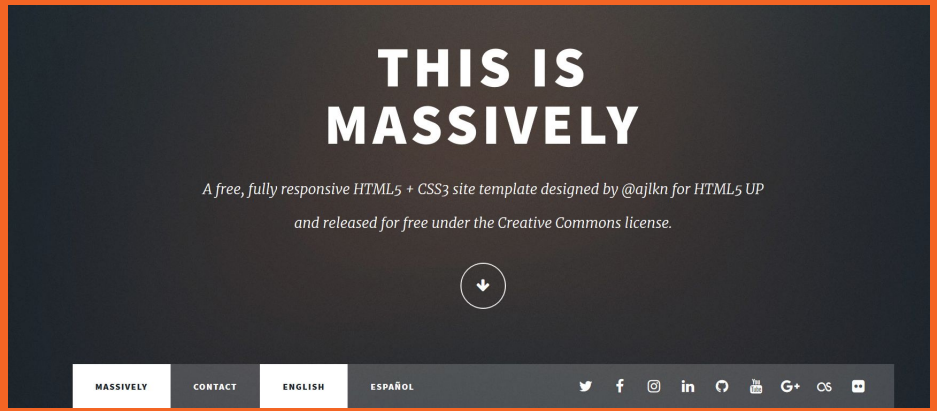
Create a new project

install.packages(“blogdown”)

library(blogdown)

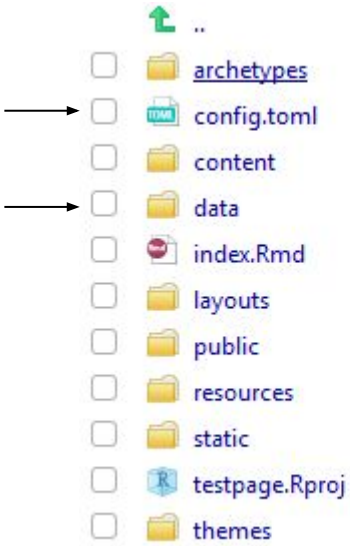
new_site(theme="curttimson/hugo-theme-massively")

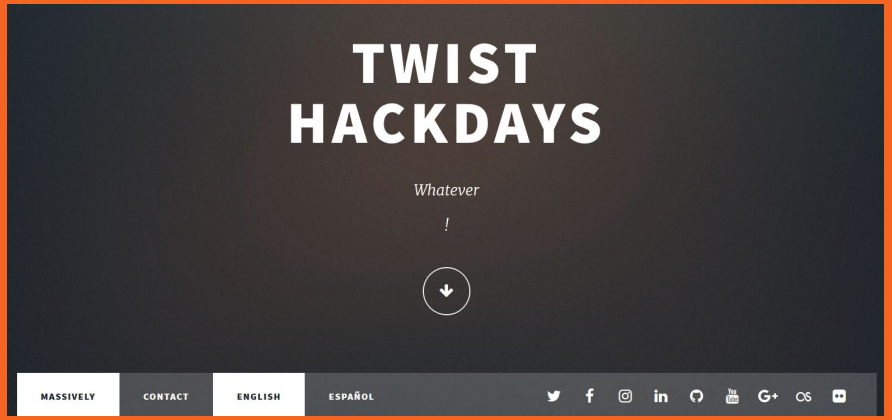
serve_site()



2.

Configure your website



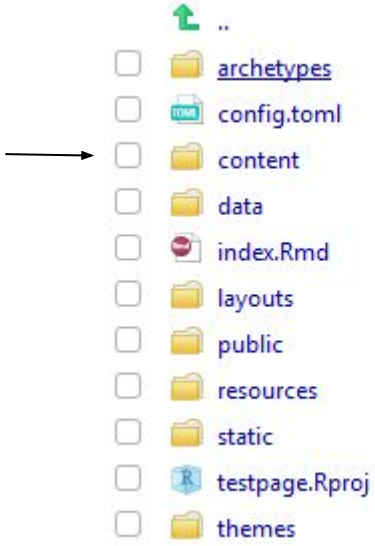


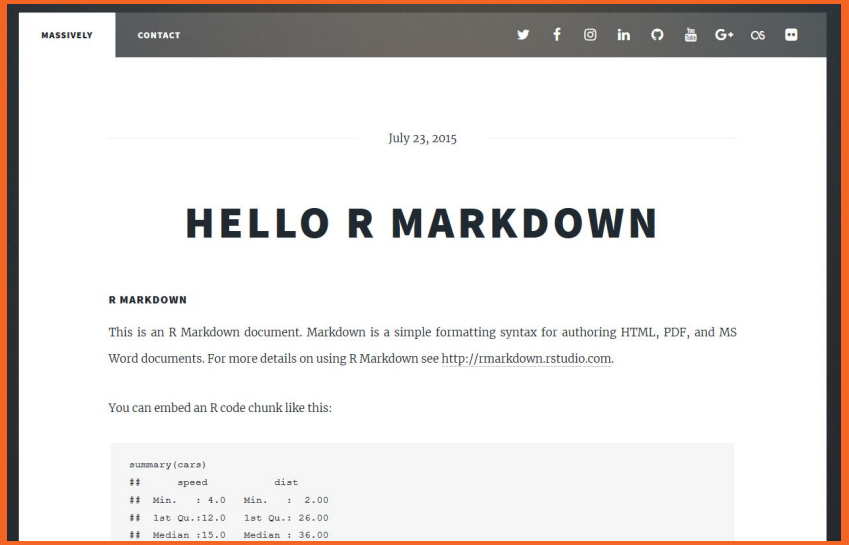
data/intro.toml:

```
title:
- line: 'TWIST'
- line: 'Hackdays'
```

3.

Create your content (.md / .Rmd)





Content Management

Real life example

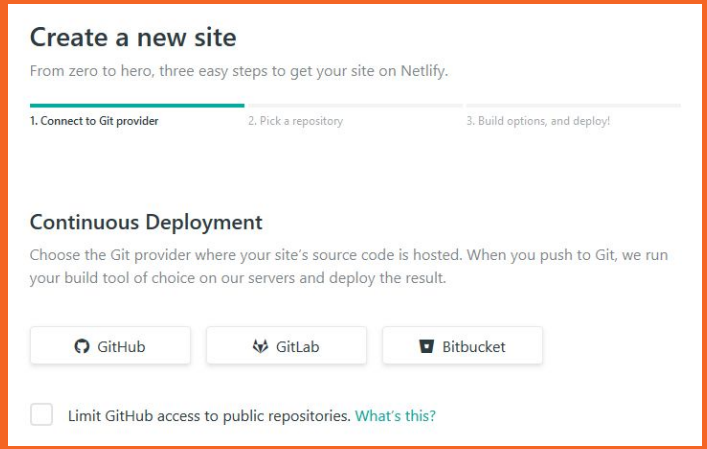
```
└ content
  └ _index.md  // https://www.twist2018.ch/
  ├ about
    └ _index.md  // https://www.twist2018.ch/about/
  ├ post (“news”)
      ├ ideas_page_live.md   //
      https://www.twist2018.ch/post/ideas_page_live/
      ├ spatial_statistics.Rmd   //
      https://www.twist2018.ch/post/spatial_statistics/
      ....
```

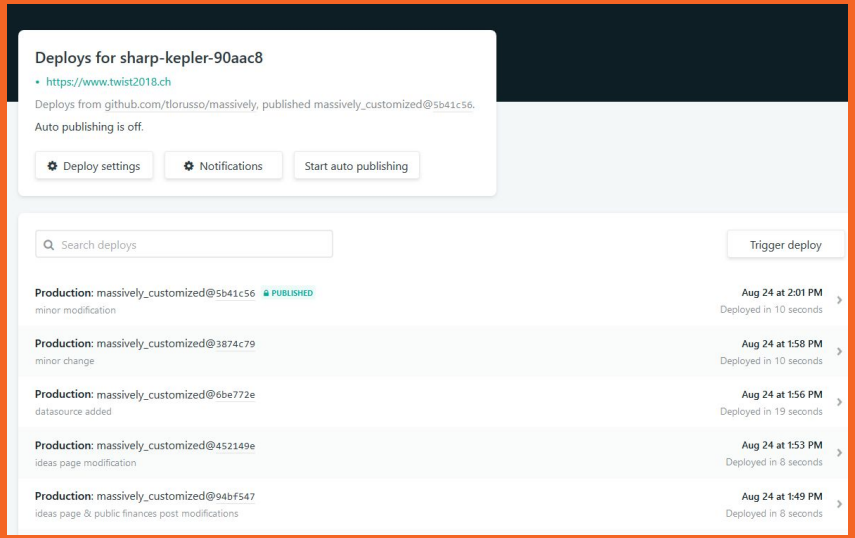
4.

Deployment

Several options: https://bookdown.org/yihui/blogdown/deployment.html

Beginner friendly option:
create a github / gitlab / bitbucket repo for your website. You can then deploy easily via netlify.com.





Customization

If you want to adapt your page according to your needs you can modify an existing theme (or even create one from scratch)

E.g. structure of website sections via templates / styling via css

Prerequisites:

- Some knowledge of css / html
- A good understanding of Hugo and its peculiarities

Customization

What do R-Users say about it?

"If you keep everything standard, it's all fairly simple. If you customize anything, though, there are ***a lot of weeds, into which you can wade as far as you like (or reverse course)...****"*

https://community.rstudio.com/t/what-is-hard-about-blogdown/8108/9

My take: If you're willing to invest a bit of time in it you will get far!

TWIST2018 - theme

- Adaption of the massively-theme
- Generate site-structure (navigation) via config.toml
- Location infos via mapbox
- Minor modifications to styles (css)

https://github.com/openZH/hugo-theme-twist-massively

To take into consideration:

You become the maintainer if you modify a theme or create one!

To recapitulate

- Creating your own datablog / website with R and deploying it easily is a reality
- Choose a theme wisely (according to your requirements)
  - Does it allow the configuration i need by default?
  - Will it be maintained in future? How important are new features & bug fixes to me?
- Customization can be time-consuming (but highly rewarding)

https://bookdown.org/yihui/blogdown/

Thank you!

@thlorusso

Useful resources / links

blogdown: Creating Websites with R Markdown, Yihui Xie et al.

Make Creating Websites fun again (with Hugo)

Hugo Docs