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# Creating Websites with Hugo & R Markdown

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# WHO AM I

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# TWIST2018 - Hackdays Website

HELP US UNMASK TWISTED TRUTHS WITH STATISTICS



**HACKDAYS**

August 25-26, 2018  
Swiss Statistics Meeting @ University of Zurich



<https://www.twist2018.ch/>



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# 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
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 = 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

### Twist-theme for hugo

You can find our hugo theme on github.

Check our [Github-repo](#)!



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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.

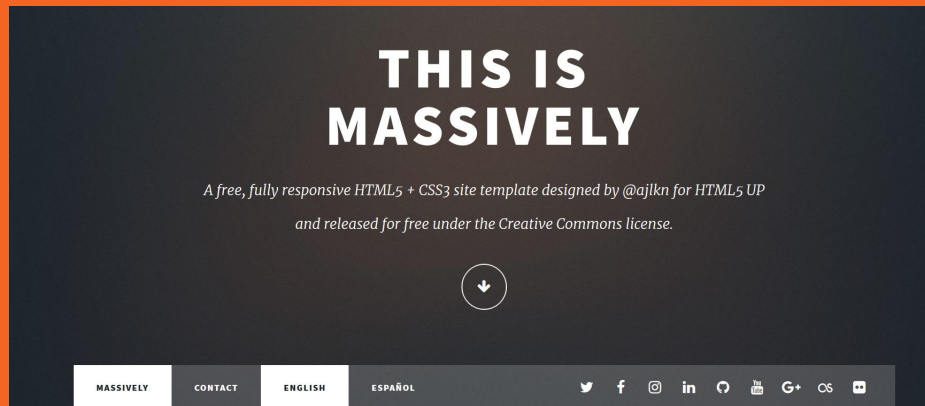
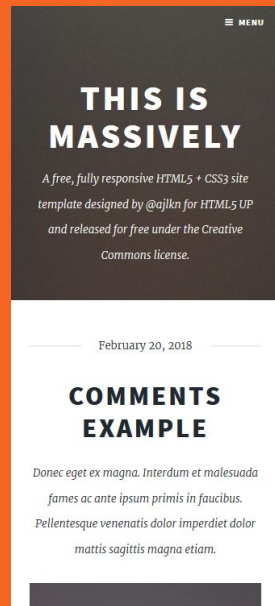
## Create a new project

```
install.packages("blogdown")
```

```
library(blogdown)
```

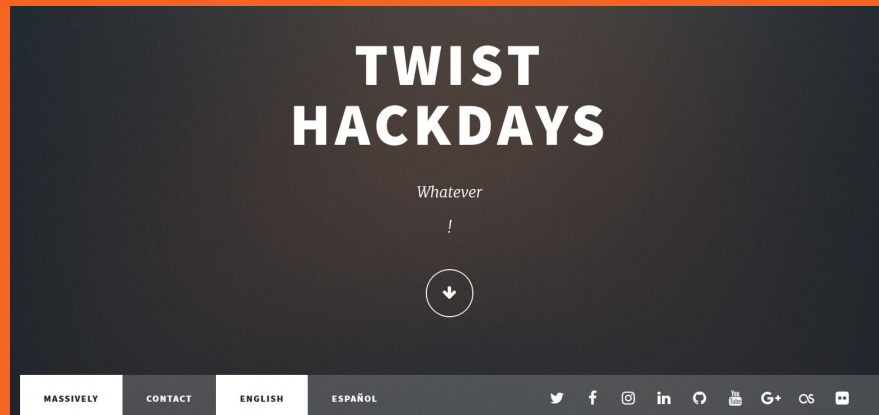
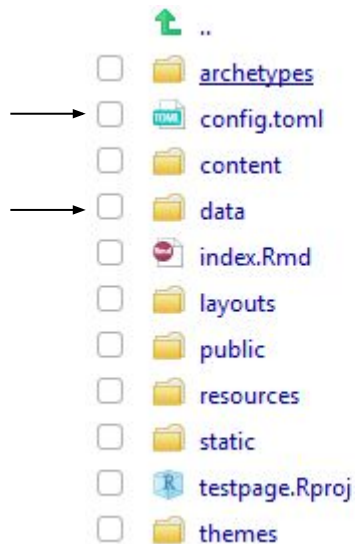
```
new_site(theme="curttimson/hugo-t  
heme-massively")
```

```
serve_site()
```



## 2.

### Configure your website



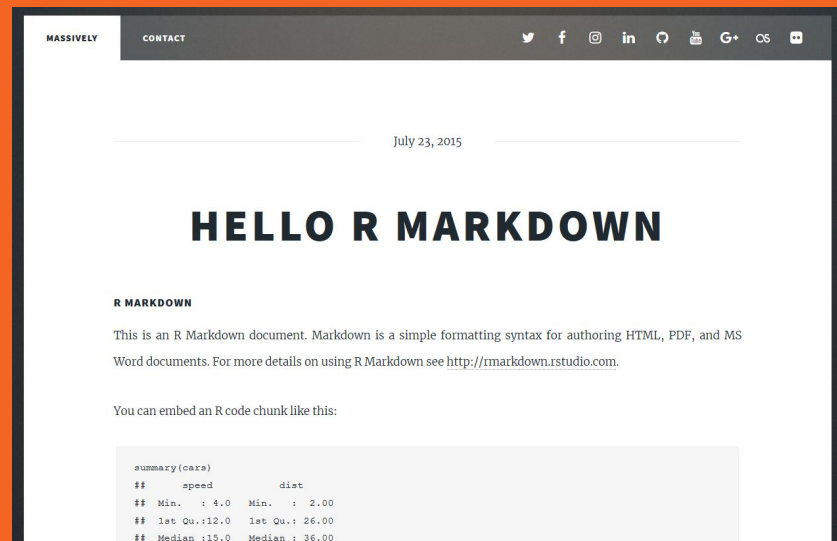
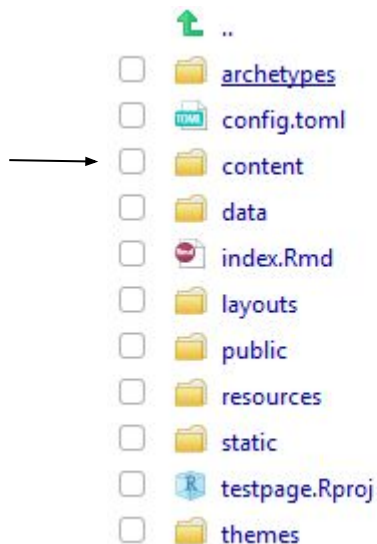
data/intro.toml:

title:

- line: 'TWIST'
- line: 'Hackdays'

# 3.

## Create your content (.md / .Rmd)



# Content Management

Real life example

```
L 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/own/deployment.html>

### Beginner friendly option:

create a github / gitlab / bitbucket repo for your website. You can then deploy easily via [netlify.com](https://netlify.com).

### Create a new site

From zero to hero, three easy steps to get your site on Netlify.

1. Connect to Git provider

2. Pick a repository

3. Build options, and deploy!

### Continuous Deployment

Choose the Git provider where your site's source code is hosted. When you push to Git, we run your build tool of choice on our servers and deploy the result.

GitHub

GitLab

Bitbucket

☐ Limit GitHub access to public repositories. [What's this?](#)

### Deploys for sharp-kepler-90aac8

• <https://www.twist2018.ch>

Deploys from github.com/tlorusso/massively, published massively\_customized@5b41c56.

Auto publishing is off.

Deploy settings

Notifications

Start auto publishing

Search deploys

Trigger deploy

Production: massively\_customized@5b41c56 PUBLISHED  
minor modification

Aug 24 at 2:01 PM  
Deployed in 10 seconds

Production: massively\_customized@3874c79  
minor change

Aug 24 at 1:58 PM  
Deployed in 10 seconds

Production: massively\_customized@6be772e  
datasource added

Aug 24 at 1:56 PM  
Deployed in 19 seconds

Production: massively\_customized@452149e  
ideas page modification

Aug 24 at 1:53 PM  
Deployed in 8 seconds

Production: massively\_customized@94bf547  
ideas page & public finances post modifications

Aug 24 at 1:49 PM  
Deployed in 8 seconds

# 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!





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# 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!

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# 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/>

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# Thank you!



[@thlorusso](https://twitter.com/thlorusso)

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# Useful resources / links

[blogdown: Creating Websites with R Markdown, Yihui Xie et al.](#)

[Make Creating Websites fun again \(with Hugo\)](#)

[Hugo Docs](#)