



Can you trust your R package?

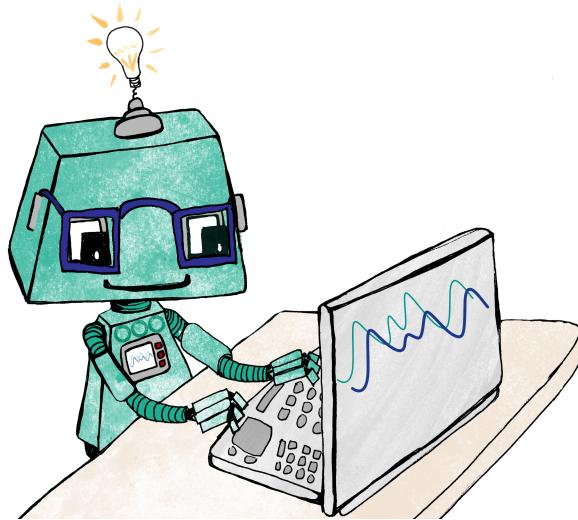


Manchester R

Rhian Davies (@trianglegirl)



Jumping Rivers



- On-site training (RSS accredited)
- R and python consultancy
- Dashboard creation
- Code review
- Continuous integration
- RStudio full service certified partners
- System architecture
- R Package development
- Predictive analytics



Our clients



The Scottish Government
Riaghaltas na h-Alba





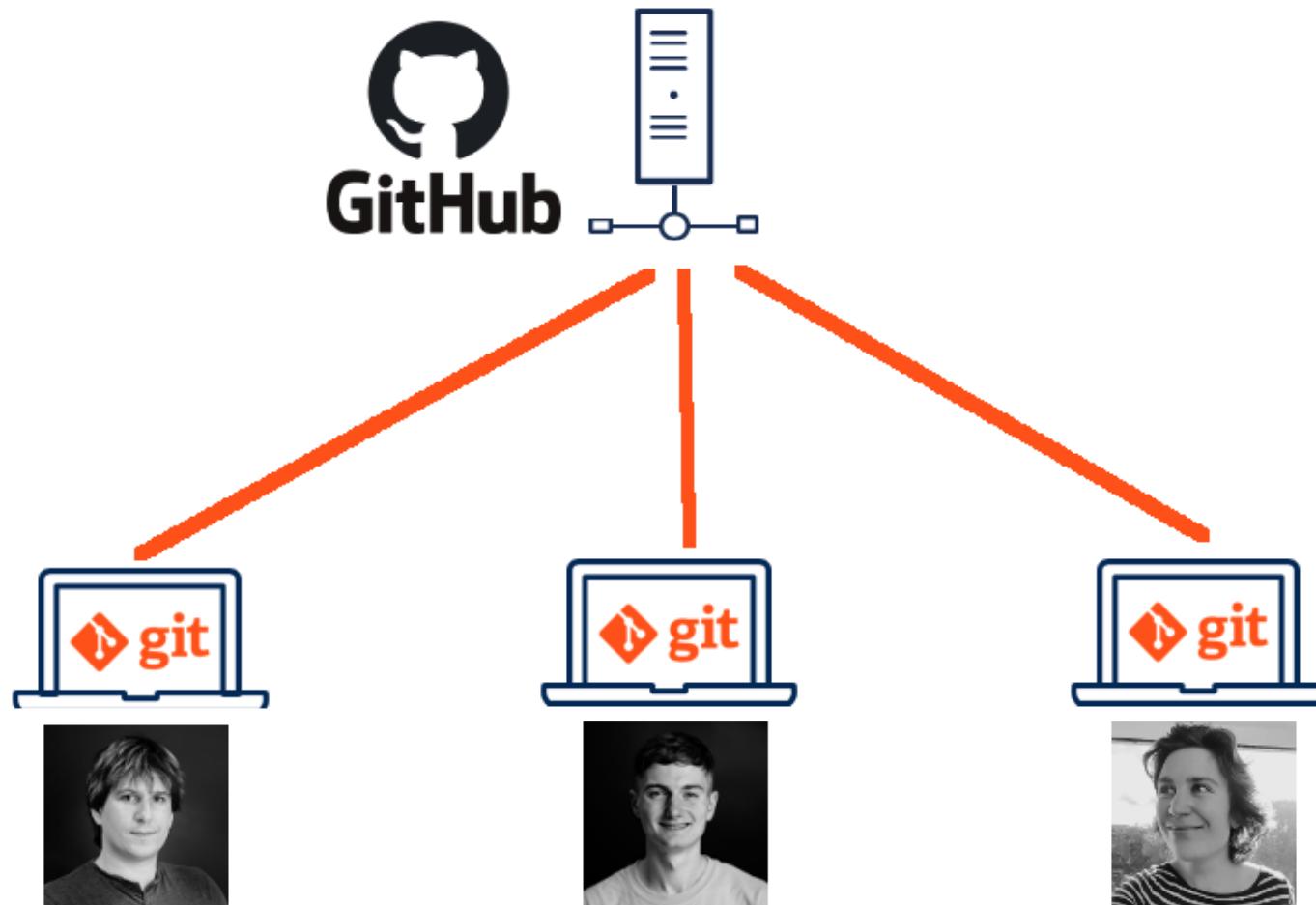
Hands up...



- If you've written an R package before?
- If you've written a test before?
- If you've used version control before?
- If you've used continuous integration before?

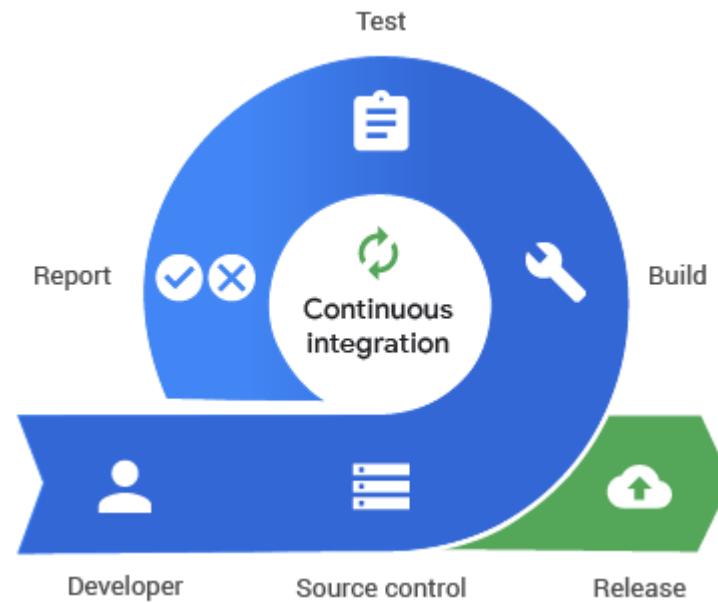


Git Refresher





Make a small changes and integrate often





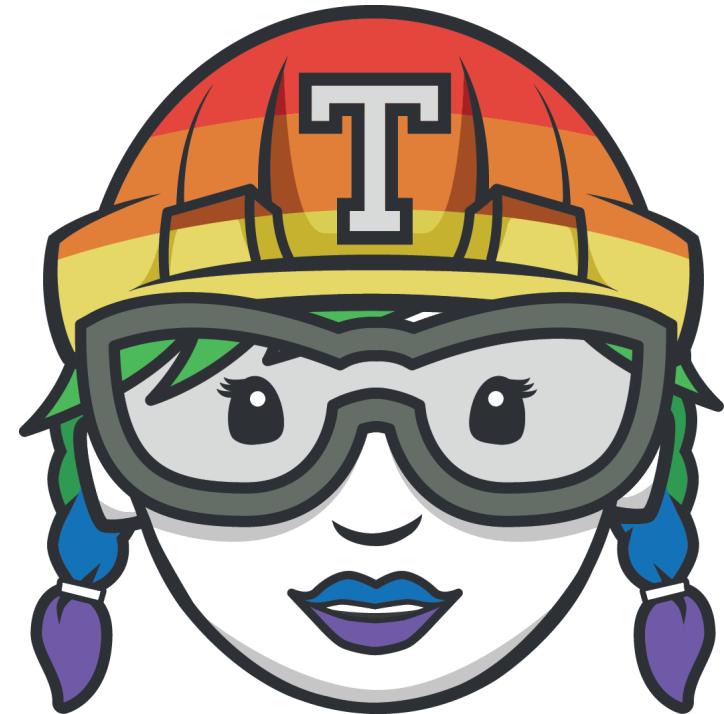
Why use CI?

- Get daily constant feedback 
- Catch bugs early 
- Avoid the monster commit 
- You don't have to remember to run `devtools::check()` 



Travis?

- A hosted continuous integration service
- Used to build and test software projects hosted at GitHub
- Essentially a push to GitHub, triggers another job
- This job could be anything





How to set it up?

- Host your R package on GitHub
- Create a `.travis.yml` file `usethis::use_travis()`
- Go to travis-ci.org to link your GitHub account with travis
- Turn on ci for your project by switching the button

```
> usethis::use_travis()
✓ Setting active project to '/home/rhian/Documents/presentations/2019'
✓ Writing '.travis.yml'
✓ Adding '^\\.travis\\.yml$' to '.Rbuildignore'
● Turn on travis for your repo at https://travis-ci.org/profile/triar
```



An example `travis.yml` file

```
language: r
cache: packages
```

```
r:
  - oldrel
  - release
  - devel
```

```
notifications:
  email:
    recipients:
      - alerts@jumpingrivers.support
  on_success: change
  on_failure: change
```



What jobs can you run on Travis?

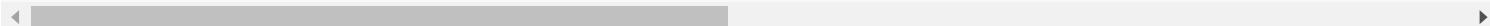




Badge-tastic

build passing

[! [Travis build status]](<https://travis-ci.org/jr-packages/jrIntroduction>)







X master

 Rhian Davies

Add pushbullet

-o- #8 failed

-o- f200238 ↗



 master	Fix travis	-o- #9 errored
 Rhian Davies		-o- e113285 ↗
 master	Add pushbullet	-o- #8 failed
 Rhian Davies		-o- f200238 ↗



! master	Really fixing travis this time	-o- #10 errored
! master	Fix travis	-o- #9 errored
X master	Add pushbullet	-o- #8 failed



! master	Dammit Travis	-o- #11 errored
 Rhian Davies		-o- 990d618 
! master	Really fixing travis this time	-o- #10 errored
 Rhian Davies		-o- bee6b1c 
! master	Fix travis	-o- #9 errored
 Rhian Davies		-o- e113285 
X master	Add pushbullet	-o- #8 failed
 Rhian Davies		-o- f200238 



✓ master	TRAVIS CI If you don't work right now you're going	-o- #12 passed
Rhian Davies		-o- 35ed59e ↗
! master	Dammit Travis	-o- #11 errored
Rhian Davies		-o- 990d618 ↗
! master	Really fixing travis this time	-o- #10 errored
Rhian Davies		-o- bee6b1c ↗
! master	Fix travis	-o- #9 errored
Rhian Davies		-o- e113285 ↗
✗ master	Add pushbullet	-o- #8 failed
Rhian Davies		-o- f200238 ↗



Jumping Rivers and CI

- R training notes 
 - Spell check
 - Full stops
 - Up-to-date packages
 - Dead links
- Our R packages 
 - Standard package check
 - Lintr styling
 - Sensible file names



Note check demo

- Comparing to master
- Checking template files
- Checking package versions
- Spell check (experimental)
- Checking chapters for title case
- Checking section for sentence case
- Checking for full stops
- Checking for undefined citations
- Checking for duplicate labels
- Checking for undefined refs
- Checking URLs
- Checking lint
- Checking version in config.yml
- Checking for uncommitted
- ✓ Everything committed!
- ★ ★ You are fabulous! ★ ★



inteRgrate



- We wanted to **simplify** and **standardise** the way we use CI
- Create functions which will work on GitHub, GitLab and in R
- Specify the exact number of NOTES and WARNINGS we allow
- Include additional checks



Main functions of inteRgrate ✓

- check_pkg()
- check_r_filenames()
- check_tidy_description()
- check_lintr()
- check_namespace()

```
inteRgrate::check_lintr()
○ Checking lint...check_lintr()
○ Checking vignettes
.....
✓ Lint looks good
```



Summary

- Use continuous integration ✓
- Don't get upset when it fails 😞
- Feel happy you've taken a step toward more robust code 🔒
- Chat to us if you need help 📩

Resources

- [inteRgrate](#)
- [usethis](#)
- [tic](#)
- [Julia's blogpost](#)
- [GitHub PAT](#)

