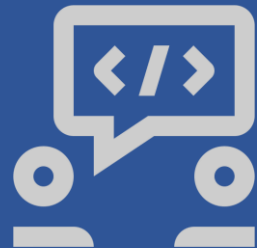


Code review with Git & R

Rosanne Timmerman & Anna Henschel



“Code review is like peer review for code.”

<https://www.youtube.com/watch?v=6qKpbWyb6tg>




1. Why do code review?



Transitioning the workflow.

Transition your workflow,
keep your sanity

Danielle Navarro

 djnavarro



slides.com/djnavarro/workflow

Sydney Research Bazaar, September 2019

Transition your workflow, keep your sanity

Danielle Navarro
@djnavarro



slides.com/djnavarro/workflow
Sydney Research Bazaar, September 2019



#ResBazSydney19

<https://slides.com/djnavarro/workflow#/>

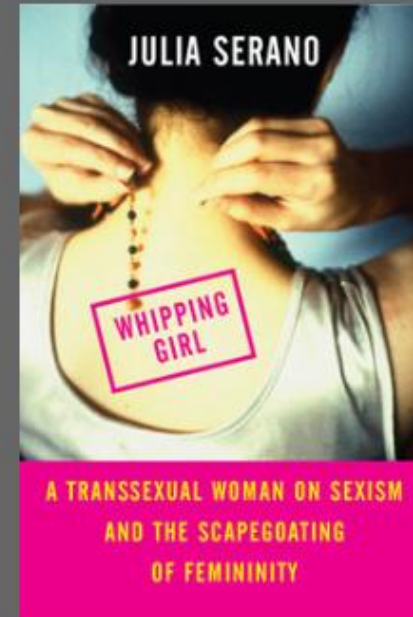
Transition your workflow,
keep your sanity

Danielle Navarro
@djnavarro



slides.com/djnavarro/workflow
Sydney Research Bazaar, September 2019

Transitions are hard



#ResBazSydney19

<https://slides.com/djnavarro/workflow#/>

Code review can help you be a better scientist

Code review to enhance research training, collaboration,
and communication



Lindsay Peterson
UNSW Sydney

`lindsay.peterson@unsw.edu.au`



Damien Mannion
UNSW Sydney

`d.mannion@unsw.edu.au`



lindsaympeterson added 2 commits 7 days ago



adding render code

f898855



black

c91a16d



lindsaympeterson requested a review from **djmannion** 7 days ago



djmannion requested changes 7 days ago

[View changes](#)

shape_illum_prep/render.py Outdated

Hide resolved

```
60 + resources_path=conf.resources_path,  
61 + )  
62 +  
63 + try:
```



djmannion 7 days ago

+ 😊 ...

Can also get rid of the `try` `except` if using `with`.



Reply...

Unresolve conversation

lindsaympeterson marked this conversation as resolved.



djmannion approved these changes 6 days ago

[View changes](#)



djmannion merged commit 3422a0d into master 6 days ago

[Revert](#)

Code review: research training, collaboration, & communication

The code review process has benefits for students, supervisors, and the wider scientific community:

- ▶ Facilitates students' learning of research methods and tools.
- ▶ Supports the sharing knowledge of, and responsibility for, research decisions.
- ▶ Encourages authors to write readable code, which is important for interpretability by the scientific community.

2. Intro to git



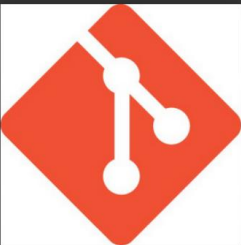
Git = the most widely used modern version control system in the world today

Github = a web-based hosting service for version control using git

I HATED GIT



**NOW I HATE
IT LESS**



PLAYLIST

Songs about Git

Yes, this Playlist

Created by 112

PLAY

♡	Pull It	Jeff Beck	2018-12-19
♡	Merge	Akira The Don	2019-09-04
♡	Commit	Daktyl	2019-09-04
♡	Push It	Salt-N-Pepa	2018-12-19
♡	Committed	Unsane	2018-12-19
♡	Under Pressure	Queen, David Bowie	2019-01-20
♡	Push Pull	OFFAIAH	2019-05-03
♡	Conflict	Elektronomia	2019-09-04
♡	My computer is dying	GRISFX	2018-12-19
♡	I'm so Stupid	Madonna	2019-01-20

The unexpected poetic side of git:

```
rosannet@rosannet-pc MINGW64 /e/Rosanne/PsychoPy_exp/SocLight_exp/Rosanne-SoBA-Internship3/.git (master)
$ git checkout
fatal: You are on a branch yet to be born
```


This is a repo:



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[brooke-watson](#) / [BRRR](#)

Unwatch releases ▾ 7

★ Unstar 140

Fork 19

↔ Code

🔔 Issues 5

Pull requests 3

🎬 Actions

Projects 0

Wiki

Security

Insights

Rap adlibs in R.

Short description

🔗 80 commits

1 branch

0 packages

0 releases

13 contributors

Branch: master ▾

New pull request

Create new file

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[brooke-watson](#) Merge pull request #25 from [davidalpiaz](#)/master ...

Latest commit [ca4026f](#) on 3 Dec 2018

R	Expose named & numbered listing of sounds	17 months ago
inst	Make this filename portable = no whitespace	17 months ago
man	Expose named & numbered listing of sounds	17 months ago
.Rbuildignore	spelling	6 years ago
.gitignore	spelling	6 years ago
BRRR.Rproj	Re-document	17 months ago
DESCRIPTION	Re-document	17 months ago
NAMESPACE	Expose named & numbered listing of sounds	17 months ago
README.md	add quotes in install.packages call	17 months ago

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[brooke-watson](#) Merge pull request #25 from [davidalpiaz/master](#) ...

Latest commit [ca4026f](#) on 3 Dec 2018



[R](#)



[inst](#)



[man](#)



[.Rbuildignore](#)



[.gitignore](#)



[BRRR.Rproj](#)



[DESCRIPTION](#)



[NAMESPACE](#)



[README.md](#)

Expose named & numbered listing of sounds

17 months ago

Make this filename portable = no whitespace

17 months ago

Expose named & numbered listing of sounds

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spelling

6 years ago

spelling

6 years ago

Re-document

17 months ago

Re-document

17 months ago

Expose named & numbered listing of sounds

17 months ago

add quotes in install.packages call

17 months ago

Overview of commits = changes

This is a repo:



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🔗 Pull requests 3

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Branch: master ▾

New pull request

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brooke-watson Merge pull request #25 from daviddalpia/master ...

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📄 NAMESPACE	Expose named & numbered listing of sounds	17 months ago
📄 README.md	add quotes in install.packages call	17 months ago

Super useful long description

This is a repo:

Super useful long description

README.md

BRRR

Let Gucci Mane tell you when your script is done.

Have you ever wanted to know - and celebrate - when your simulations are finally done running in R? Have you ever been so proud of pulling of a tricky bit of code that you wanted Flavor Flav to yell "yeaaahhhh, boi!!" as soon as it successfully completes? Have you ever gotten an error message that felt like DJ Khaled yelling, "They don't wanna see us win!"

Probably not, but you might now. And now, with BRRR, you can.



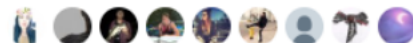
Gucci Mane ✓
@gucci1017

Following

#BRRR #BRRR #BRRR #BRRR #BRRR
#BRRR #BRRR #BRRR #BRRR #BRRR
#BRRR #BRRR #BRRR #BRRR #BRRR
#BRRR #BRRR #BRRR #BRRR #BRRR
#BRRR #BRRR #BRRR RT

2:06 PM - 23 Oct 2009

28 Retweets 15 Likes



28



15



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[brooke-watson](#) Merge pull request #25 from [daviddalpiazz/master](#) ...

Latest commit [ca4026f](#) on 3 Dec 2018

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Folder with R scripts

This is a repo:



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DESCRIPTION	Re-document	17 months ago
NAMESPACE	Expose named & numbered listing of sounds	17 months ago
README.md	add quotes in install.packages call	17 months ago

This is a repo:



⚠ Needs more Young Thug.

#24 opened on 18 Oct 2018 by alexW335

<https://open.spotify.com/playlist/0MJBni0UzdnML1amikx0Rc>

This tutorial walks you through the first steps in git/ Github:

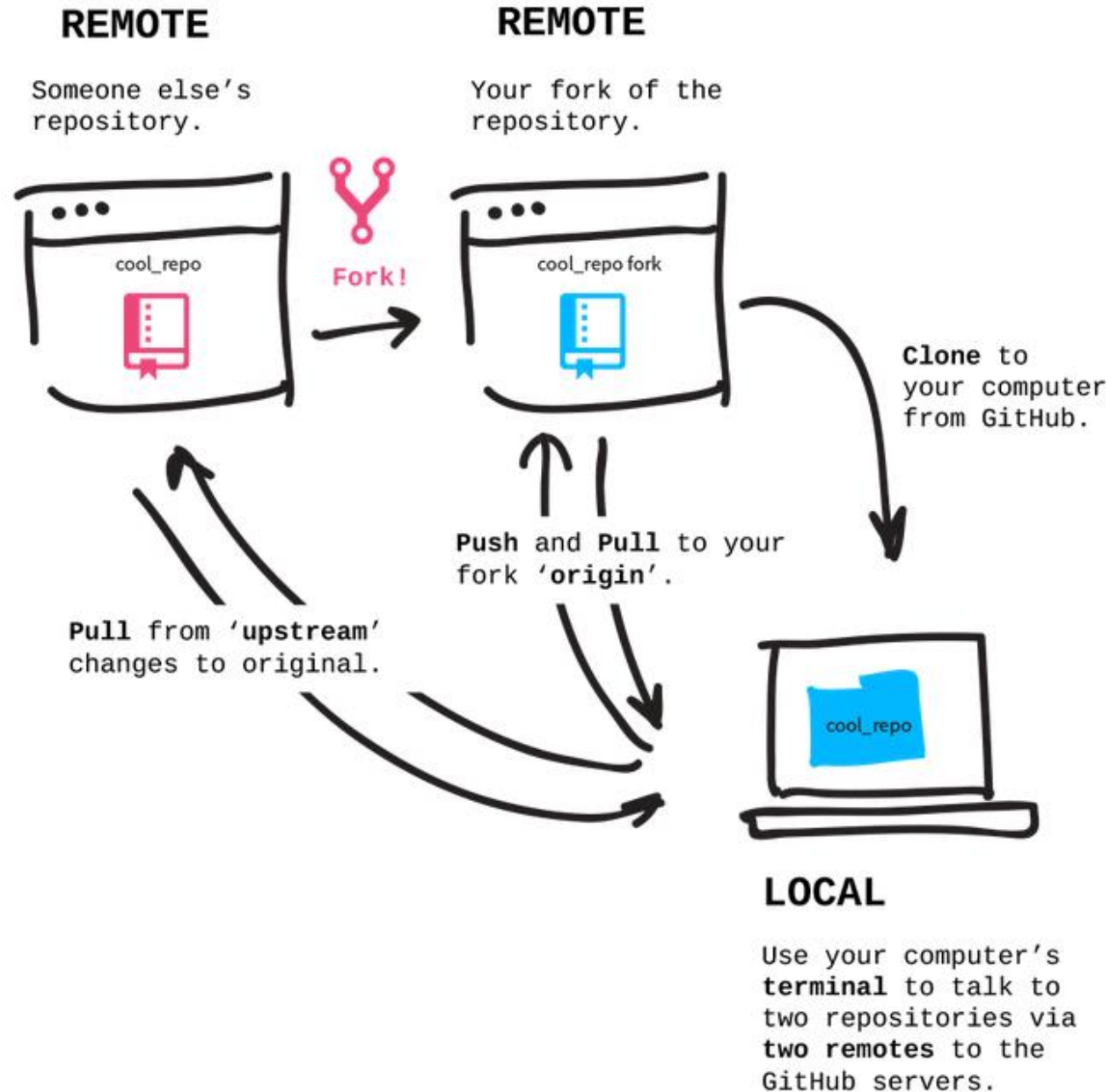


I'm a Data Scientist, Git me out of here!

Bruna Wundervald & Jo Niec · R-Ladies Dublin

20 February, 2020

1 / 31



Github:

My PC:

annahensch / Rosanne-SoBA-Internship Private

<> Code ! Issues 0 Pull requests 0 Actions Projects 0 W

This is the place for our weekly meeting plans and any code you write.

[Manage topics](#)

42 commits

2 branches

0 packages

Branch: Roses_branch

New pull request

This branch is 14 commits ahead of master.

annahensch updated .rmd to knit to github document

.gitignore	Set up weekly meetings template.	2 months ago
README.md	Update README.md	2 months ago
Rosanne-SoBA-Internship3.Rproj	initial push to Roses_branch	2 months ago
Soc_int_durations.Rmd	updated .rmd to knit to github document	12 hours ago
Soc_int_durations.md	updated .rmd to knit to github document	12 hours ago
Weekly-Meetings.Rmd	updated meeting log	7 days ago
rosanne_test_data.csv	datasheet	2 months ago
test_data_twobreaks.csv	changed durations script	8 days ago

Name	Date modified	Type	Size
.Rhistory	17/03/2020 13:50	RHISTORY File	17 KB
Soc_int_durations.md	17/03/2020 13:42	MD File	3 KB
Soc_int_durations.Rmd	17/03/2020 13:42	RMD File	3 KB
Rosanne-SoBA-Internship3.Rproj	13/03/2020 20:12	R Project	1 KB
Weekly-Meetings.Rmd	10/03/2020 15:43	RMD File	8 KB
test_data_twobreaks.csv	10/03/2020 15:23	Microsoft Excel-CSV-...	87 KB
README.md	04/02/2020 11:58	MD File	1 KB
rosanne_test_data.csv	04/02/2020 11:58	Microsoft Excel-CSV-...	86 KB
.gitignore	13/01/2020 12:45	Text Document	1 KB
.git	17/03/2020 13:44	File folder	
.Rproj.user	25/02/2020 14:17	File folder	

Latest commit 91f1220 12 hours ago

Top advice: keep calm



3. Best practices



Tips (pretty much the same as scientific peer review)

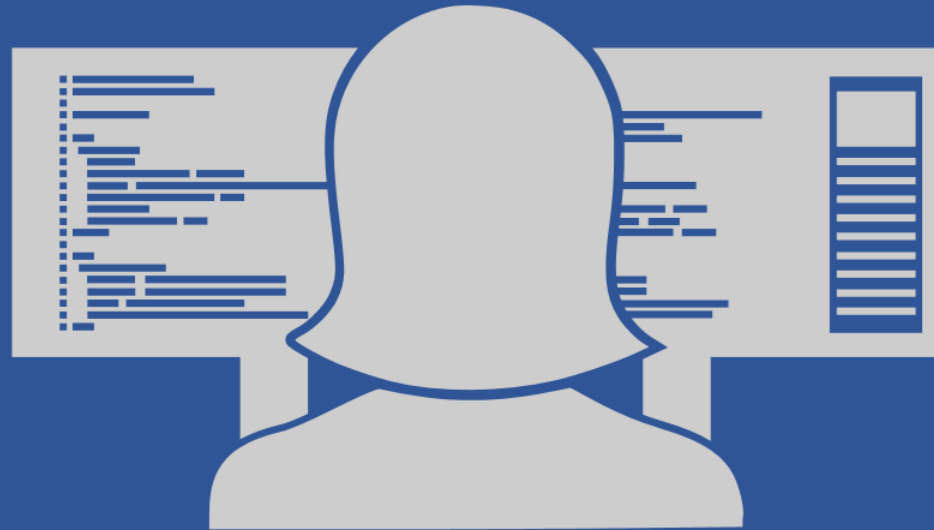
1. **Don't take it personally**
2. **Don't marry your code**
3. **Consider all feedback**
4. **Articulate why you made certain choices**
5. **Be willing to compromise**
6. **Contribute to others code reviews**
7. **Thou shalt treat submitters how thou would like to be treated**
8. **Thou shalt not be intimidated by the number of comments**
9. **Thou shalt not repeat the same mistakes**
10. **Thou shalt embrace the nits**

3. Code review demo



<https://github.com/annahensch/Rosanne-SoBA-Internship>

4. Concluding thoughts





It ain't much, but it's honest work