# bcgov North Area R Geospatial Workshop

Tuesday, November 5<sup>th</sup> 2019 Prince George, B.C.

https://github.com/bcgov/bcgov-r-geo-workshop

- 1) Version Control w/ Git
- 2) Using Git w/ GitHub
- 3) Project Management w/ RStudio
- 4) bcgov GitHub

## "FINAL".doc



FINAL.doc!



FINAL\_rev.2.doc



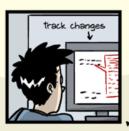
FINAL\_rev.6.COMMENTS.doc



FINAL\_rev.8.comments5. CORRECTIONS.doc



JORGE CHAM @ 2012



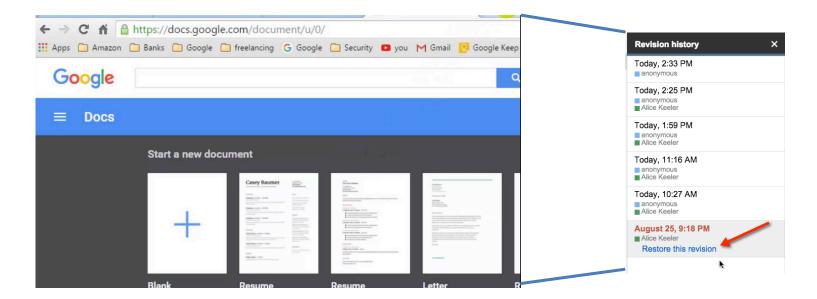


FINAL\_rev.18.comments7.



FINAL\_rev.22.comments49. corrections 9. MORE. 30. doc corrections. 10. #@ \$%WHYDID ICOMETOGRADSCHOOL????.doc

# Ctrl/Cmd Z (undo)?

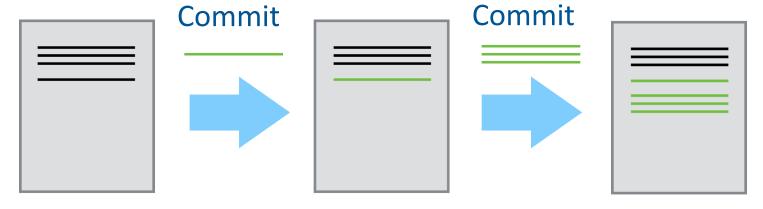




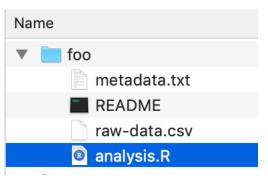




## Changes saved sequentially



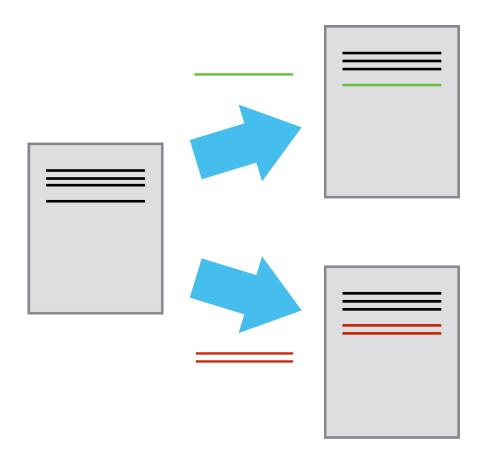
**Base Version** 



"Repository"



# Branching

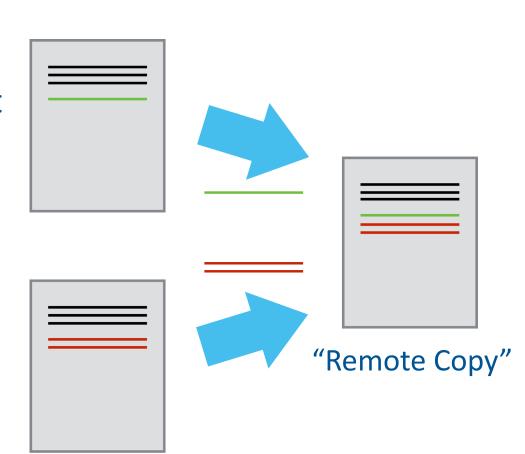




## Collaborating

 Multiple users: different people work on their own copy

 Compare and merge contributions from multiple people





### Burn It Down

THIS IS GIT. IT TRACKS COLLABORATIVE WORK ON PROJECTS THROUGH A BEAUTIFUL DISTRIBUTED GRAPH THEORY TREE MODEL.

COOL. HOU DO WE USE IT?

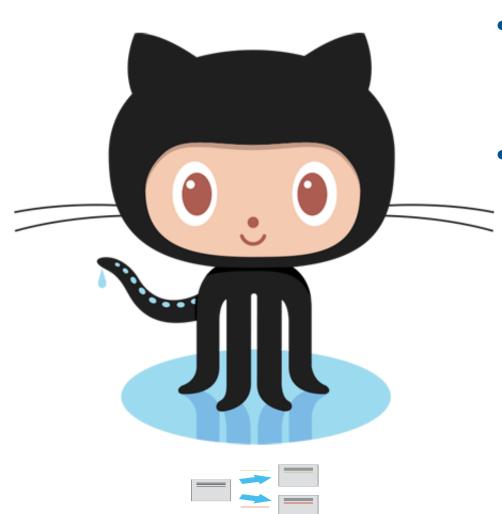
NO IDEA. JUST MEMORIZE THESE SHELL COMMANDS AND TYPE THEM TO SYNC UP. IF YOU GET ERRORS, SAVE YOUR WORK ELSEWHERE, DELETE THE PROJECT, AND DOWNLOAD A FRESH COPY.



"This is a highly inelegant, but effective technique for disaster recovery"

- Jenny Bryan (RStudio, UBC)

- 1) Git **\**
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- Hosting service for git repositories (host that "remote copy")
- Greatly facilitates collaboration

**Git:** Version Control

+

Hub: Centralized repos &
networking/collaborating

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Managing your projects in a reproducible fashion doesn't just make your science reproducible, it makes your life easier.

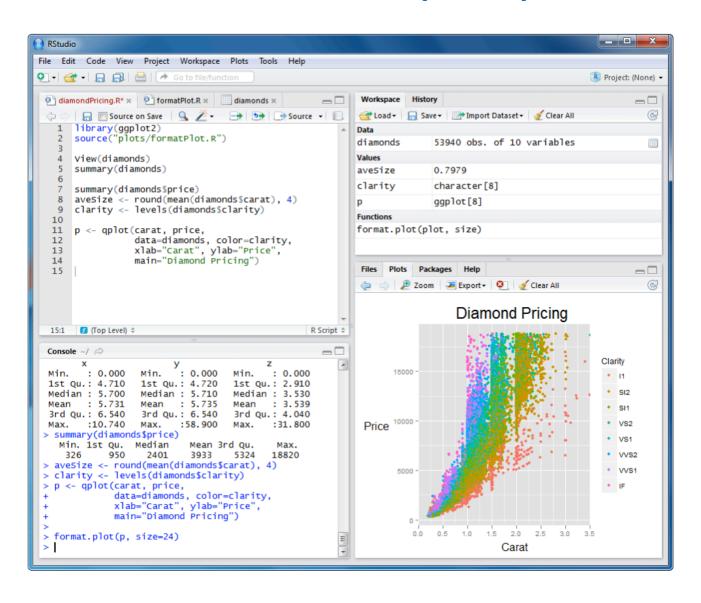
8:26 PM · Apr 14, 2013 · TweetDeck



My rule of thumb: every analysis you do on a dataset will have to be redone 10–15 times before publication. Plan accordingly. #Rstats

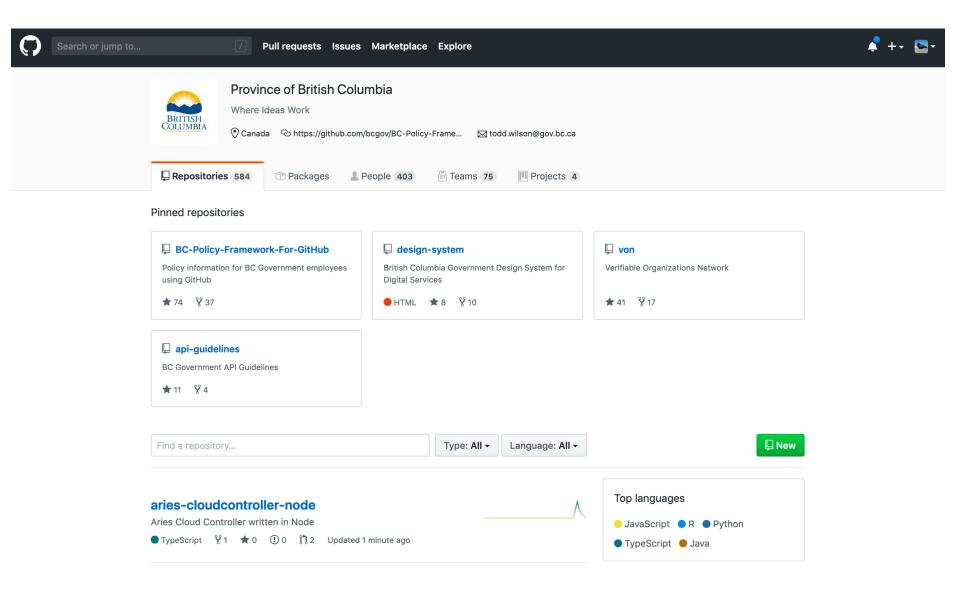
3:28 PM · Sep 29, 2015 · Twitter Web Client

## RStudio (IDE)



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## https://github.com/bcgov



## BC-Policy-Framework-For-GitHub

- Joining
- Opening & Contents of Repositories
- Licensing
- Privacy, Security, Copyright
- Appropriate Use
- How to's



Policy information for BC Government employees using GitHub



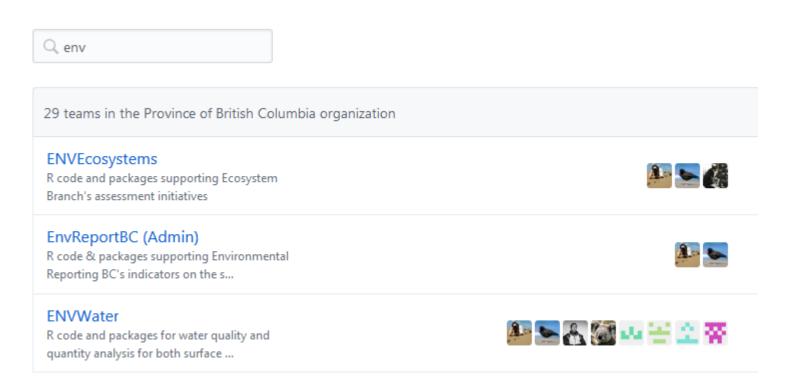
## Appropriate Use

- e.g. standards of conduct, social media guidelines
- Avoid any conflicts of interest



## **Joining**

- GitHub account with bcgov email address
- Enable 2-Factor Authentication
- Join the BCGov Organization & appropriate team(s)



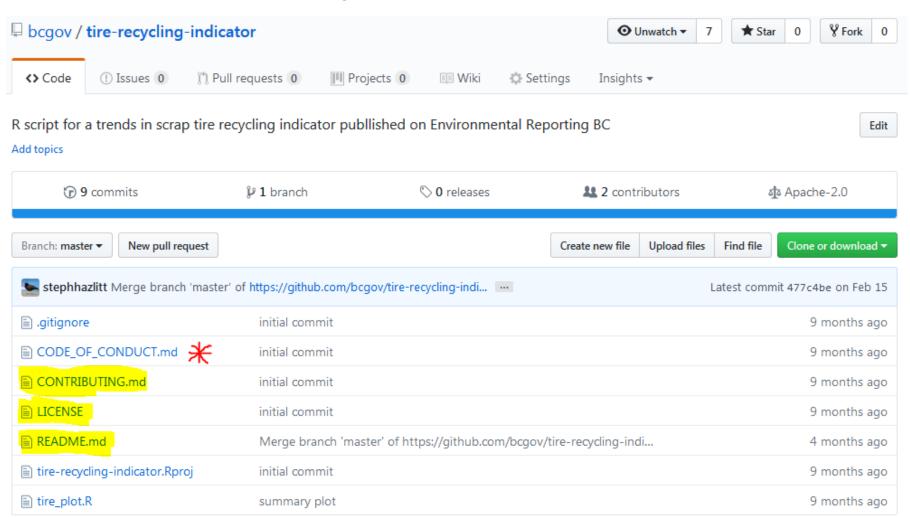
## Your Code & GitHub?

- New code
- Existing code (you, contractor?)
- Contributing to other's code

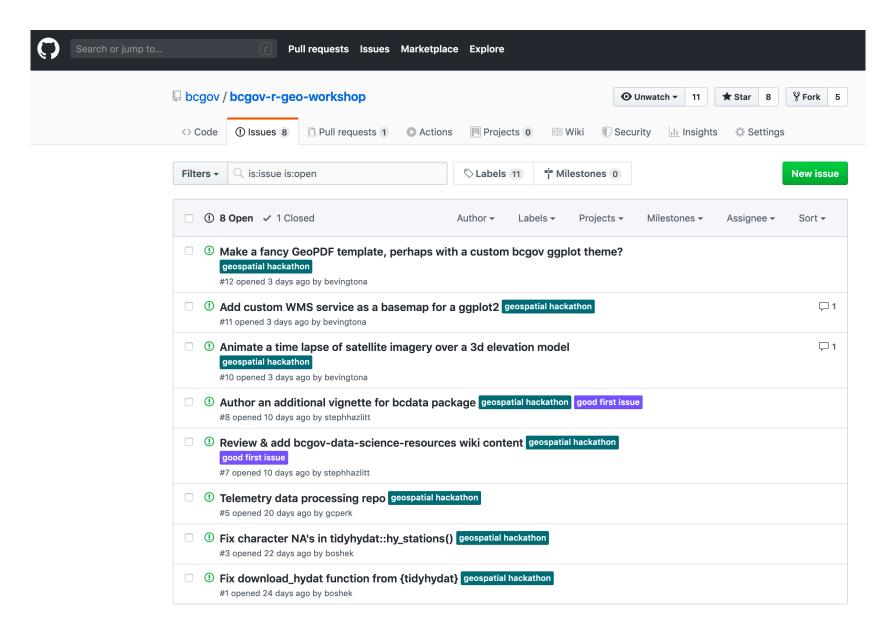
#### **OPEN CODE CHECKLIST**

- Privacy
- Copyright
- Intellectual Property
- Security

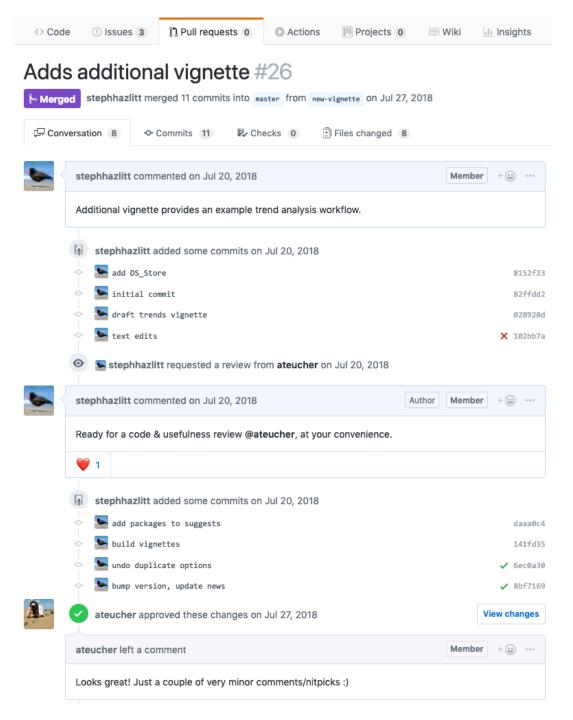
## Repo Content



## GitHub Issues







- 1) Git **\**
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## bcgovr

#### bcgovr

BCDevExchange Delivery build failing License Apache 2.0



#### **Overview**

An R package to automate set up and sharing of R projects in bcgov GitHub following bcgov guidelines.

All B.C. Government employees are responsible for determining whether bcgov R source code can be shared on bcgov GitHub and for following the BC-Policy-Framework-For-GitHub.

You will need to ensure that Git is installed on your computer. To add your project to bcgov GitHub users need to have a GitHub account and be a member of the bcgov GitHub organisation.

```
remotes::install_github("bcgov/bcgovr")
library(bcgovr)
```

# Demo: real-time collaboration w/ GitHub

