



GitHub for Geographers

@jgravois

@patrickarl

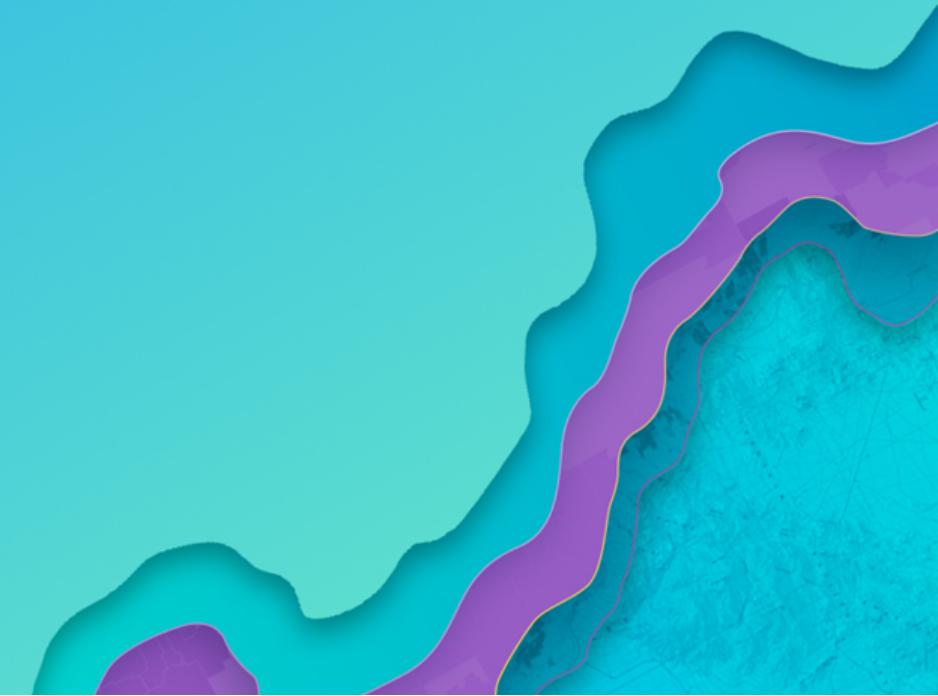
slides: <http://bit.ly/2oSd7Wx>

How is this going to work?

1. `code`
2. A *brief* introduction
3. **In situ** demo

what is GitHub?

(hint: it ends with)



- file hosting
- change archiving
- communication tool

what is Git?

distributed version control

similar to replicated SDE versioning

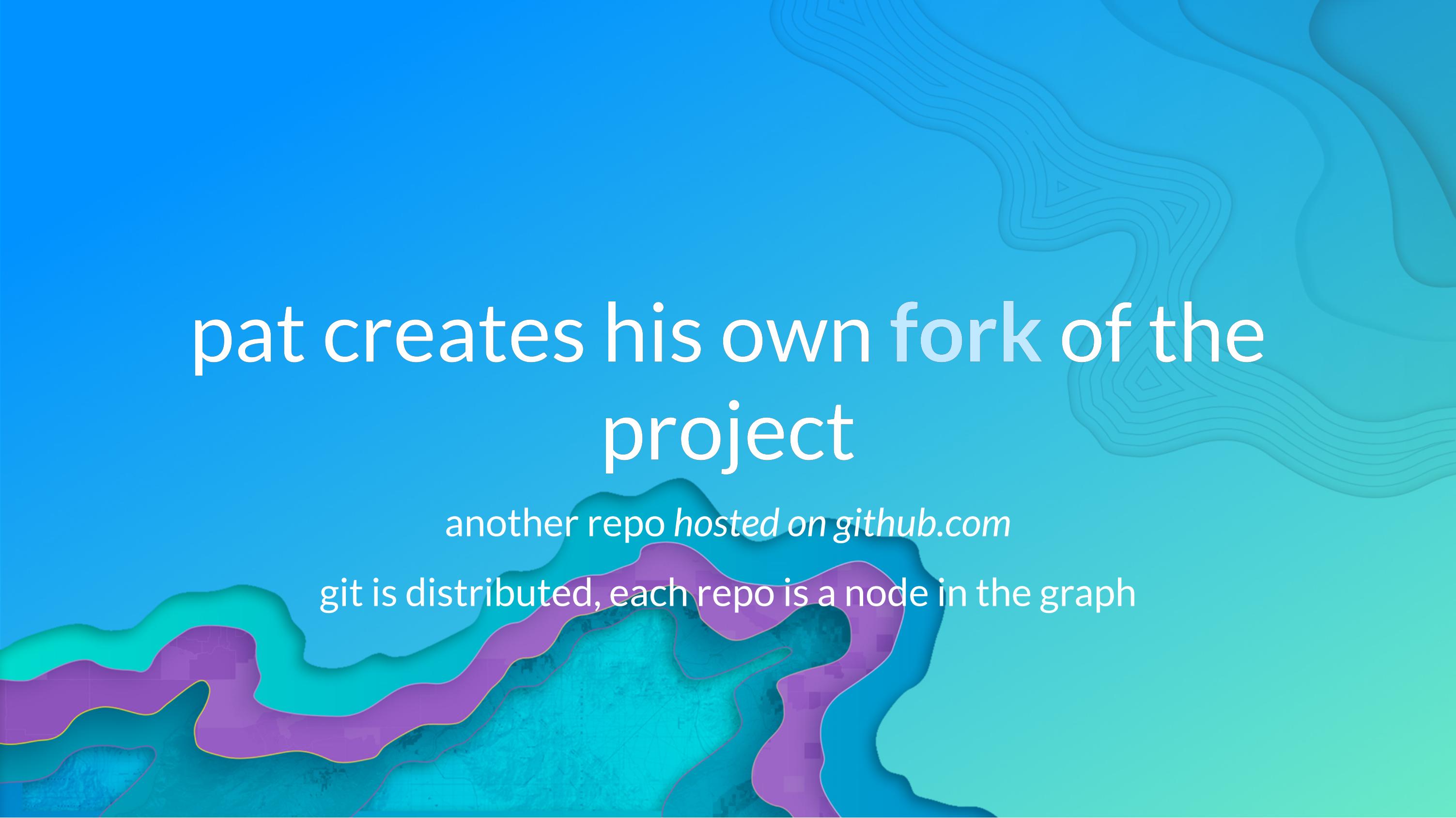


lets get collaborating!

pat finds a cool open source project

<https://github.com/jgravois/sandbox>

- GitHub: Fork A Repo



pat creates his own fork of the project

another repo *hosted on github.com*

git is distributed, each repo is a node in the graph

pat clones the repository

copies it onto his computer

```
git clone https://github.com/patrickarltsandbox.git
```

this creates another repo on pat's computer, another node in the graph



pat creates a branch to store his own work

```
git checkout -b updates
```

- Branches in a Nutshell
- Basic Branching and Merging
- Atlassian: Using Branches
- Understanding the GitHub Flow

pat commits in the new branch to save his edits

```
git commit -am "update friends.geojson"
```

pat pushes the branch up to his fork

```
git push origin updates
```

then pat creates a pull request

to propose that john incorporate his work too

- Creating a pull request
- Understanding the GitHub Flow

john merges the pull request!

john makes his own commit directly
in GitHub



pat creates another branch to store more edits

```
git checkout -b more-updates
```

and opens another pull request

merge conflict!

john edited the *same line* of the same file

- Resolve merge conflict w/ command line
- Resolve merge conflict on GitHub

so pat pulls from upstream
and resolves the conflict manually

```
git pull upstream master
```



john has a suggestion for pat



so john uses github.com to make an
edit of his own

and opens a pull request for pat to
review



lets whiteboard it

teamwork makes the *dream* work!

resources

- Try Git! (Browser based)
- GitHub Flow
- Atlassian: Learning Git
- GitHub Guides
- Git Documentation

please, please, please fill out a session survey

1. download the Esri Events App
2. select Dev Summit
3. search for "Git/GitHub for Geographers"
4. leave feedback!



idea, question, issue, or success story?

@geogangster / @patrickarl

Slides: <http://bit.ly/2oSd7Wx>



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