Lecture 10:
Git/GitHub

LING 1340/2340: Data Science for Linguists
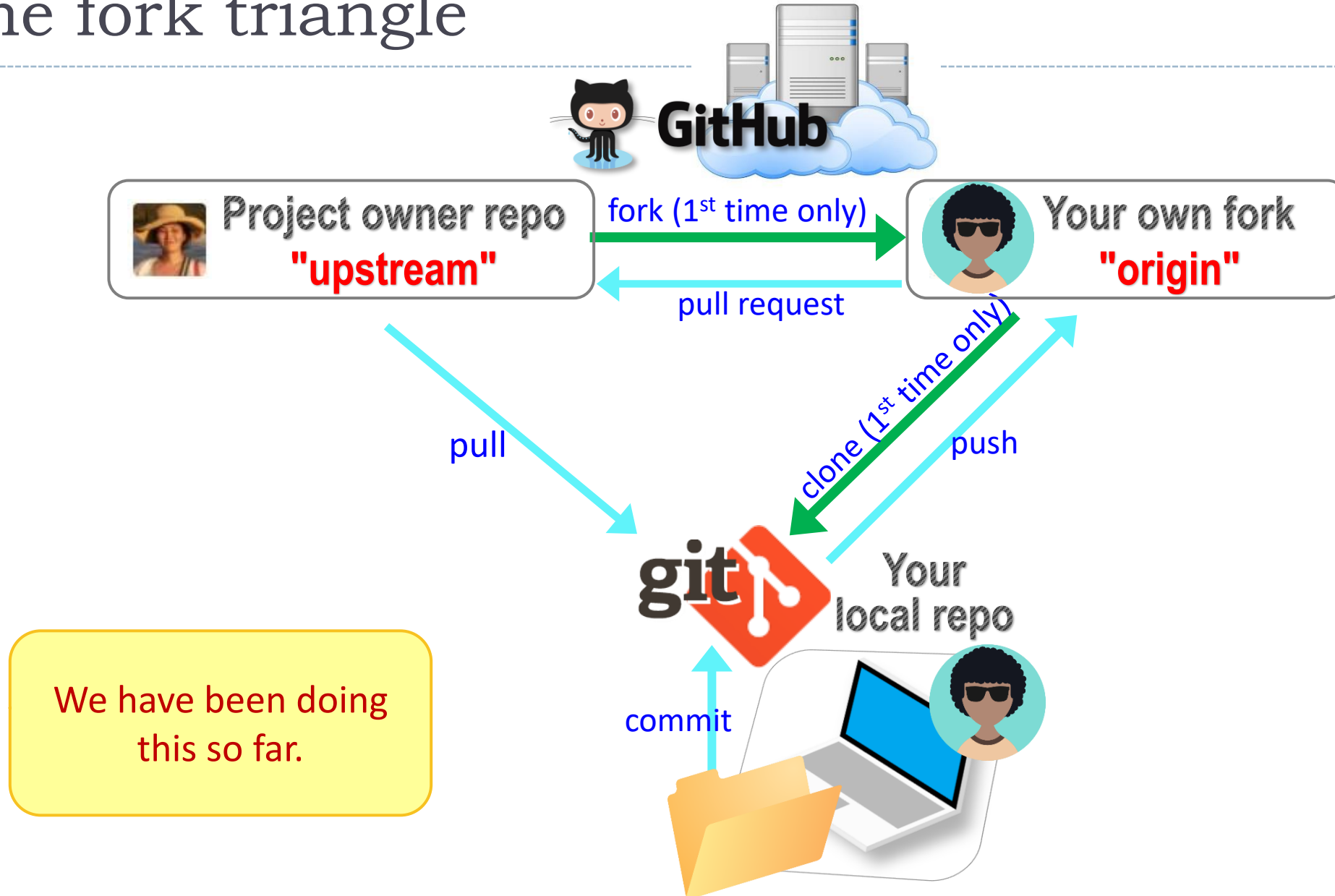
Na-Rae Han

Objectives
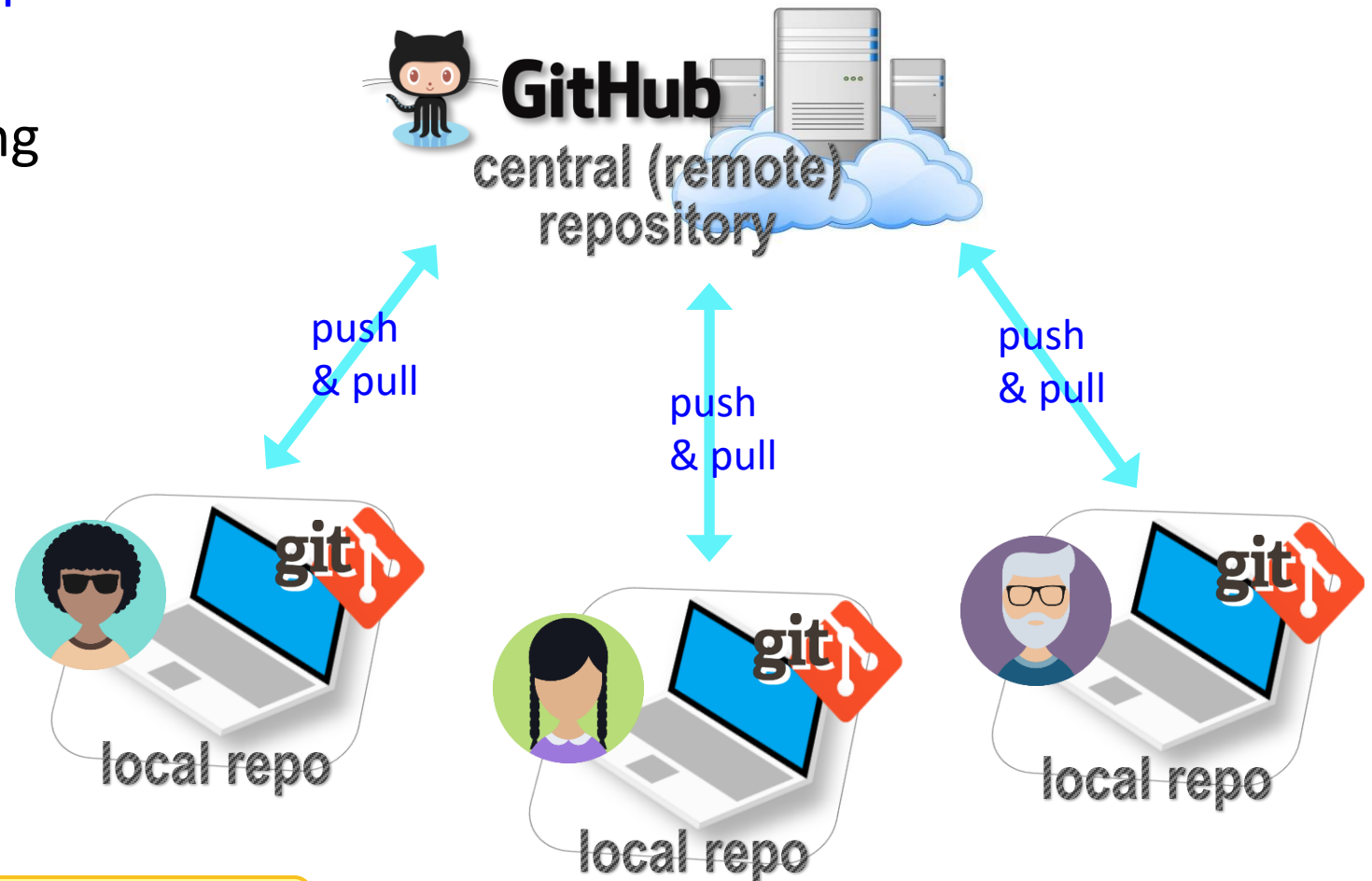
▶ **Git/GitHub**

  ◆ Collaborating on the *same* repo – push access

▶ **HW3 review: Machine learning with ETS data**

  ◆ Task 2: Prompt classification

  ◆ Task 1: L1 classification

  ◆ Task 3 → Thursday

  ← Share your HW3! Copy your HW3 into Class-Exercise-Repo!

The fork triangle

GitHub

Project owner repo **"upstream"** → fork (1st time only) → Your own fork **"origin"**

← pull request

pull

clone (1st time only) push

git Your local repo

commit

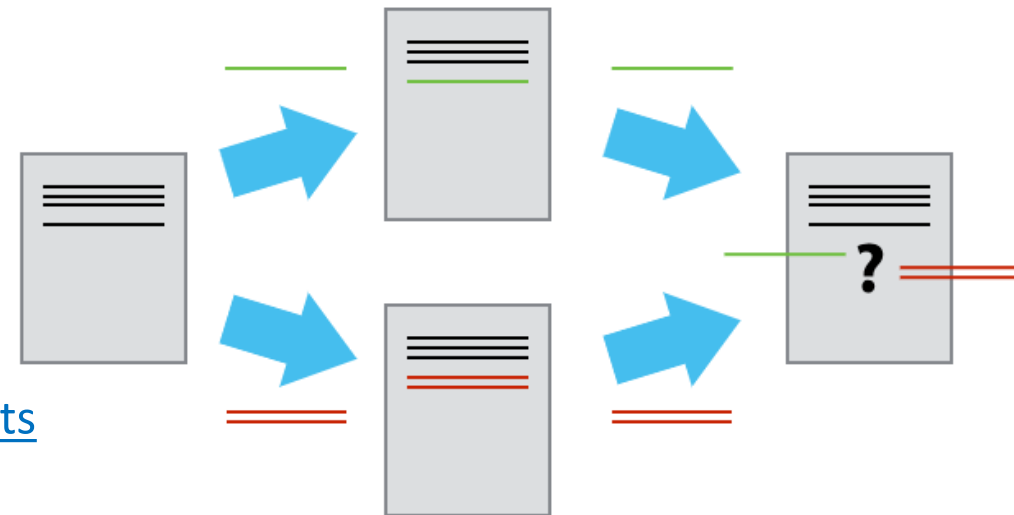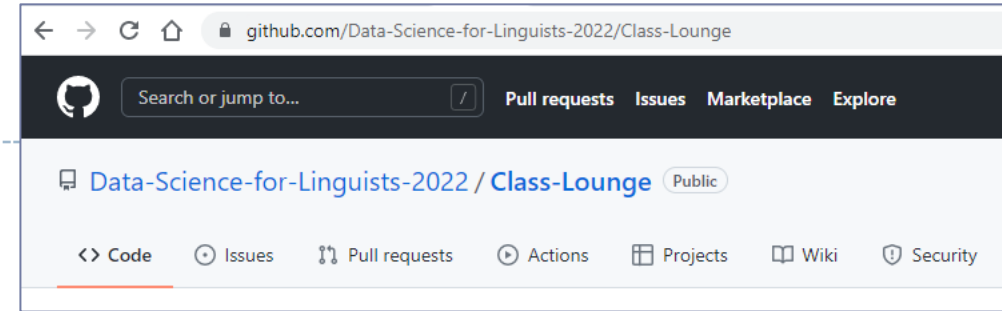We have been doing this so far.

GitHub: a *social*, remote repository

▸ GitHub also works as a central remote repository among a group of **collaborators** working on a shared project.

- ◆ Everyone works on their own *local* copy of the repository, making changes.

- ◆ Git is able to keep track and merge changes submitted by everyone.

- ◆ Everyone is an **equal collaborator** with push (=write) access.

We are now ready!

Introducing… "Class-Lounge"

▶ https://github.com/Data-Science-for-Linguists-2022/Class-Lounge

▶ Public.

▶ Everyone is listed as a "collaborator".

  ◆ Meaning, everyone has push access.

  ◆ No need to fork: pull and push directly.

  ◆ We will also truly collaborate: **edit shared files**.

▶ This means: **CONFLICTS**

  ◆ Na-Rae's tutorial on Git conflicts:

    ◆ https://github.com/mcdonn/LSA2019-Reproducible-Research/blob/master/linking_git_and_github.md#conflicts

When there is a conflict

- After you pull, Git changes your file, which then looks like:

```
<<<<<<< HEAD
There was copyright information here.

=======
>>>>>>> c954b23f86b629c569223e2c0c38e32a0d870d22
"RTlexdec","RTnaming","Familiarity","Word","AgeSubject","WordC
tenFrequency","WrittenSpokenFrequencyRatio","FamilySize","Deri
y","InflectionalEntropy","NumberSimplexSynsets","NumberComplex
thInLetters","Ncount","MeanBigramFrequency","FrequencyInitialD
elV","ConspelN","ConphonV","ConphonN","ConfriendsV","Confriend
ConffN","ConfbV","ConfbN","NounFrequency","VerbFrequency","CV"
Frication","Voice","FrequencyInitialDiphoneWord","FrequencyIni
lable","CorrectLexdec"
```

You must **manually edit this file** and tidy it up. (== resolve conflict)

A GitHub race: our favorite animals

1. Everyone was already added to the repo as a collaborator.

2. Clone the repo to your laptop.

3. Edit "animals.md", add your line.

4. Do your usual local git routine: adding, committing.

5. Try pushing. It is likely you have a conflict (someone else pushed in the meantime) and Git tells you to pull first.

6. Pull to receive the new updates.

7. Open "animals.md". Resolve conflict.

8. Go back to step 4. Hope you were quick enough this time!

Wrapping up

- To-do #10: Visit your classmates

- 2nd progress report → pushed back to next Thursday (3/24)

- "Careers in Language Data" symposium on 4/1:

  - https://www.linguistics.pitt.edu/event/careers-language-data-symposium