

Tech Foundations & Values

Week 8

DS198-004: Data Discovery Scholars Seminar
UC Berkeley - Computation, Data Science, and Society

Spring 2022

Today

1. Meme of the Week
2. Announcements
3. Tech Foundations
4. Values & Representation
5. Assignment



Meme of the Week

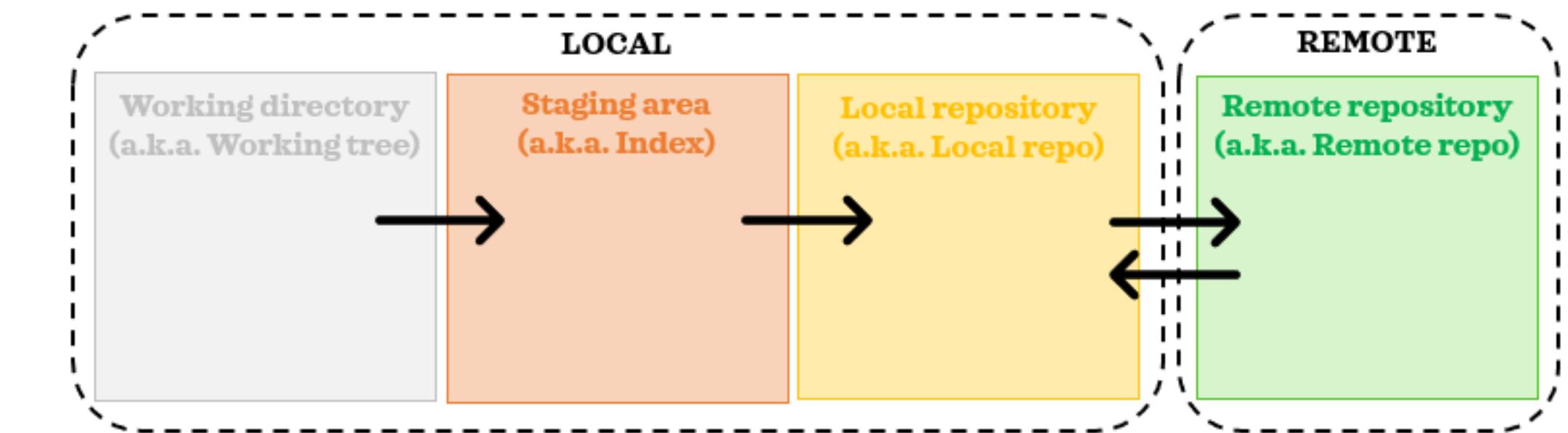
Meme of the Week



Tech Foundations

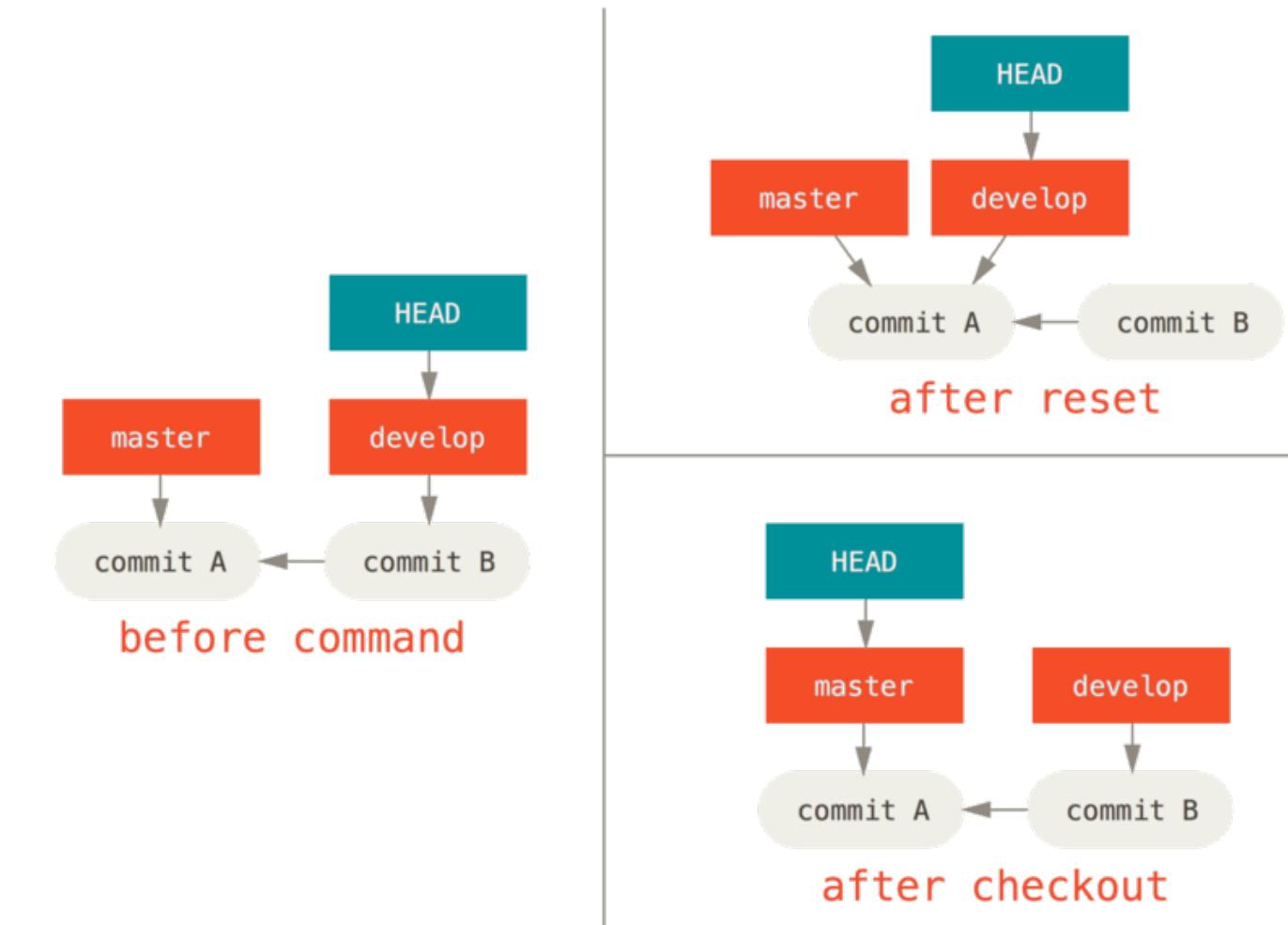
Git

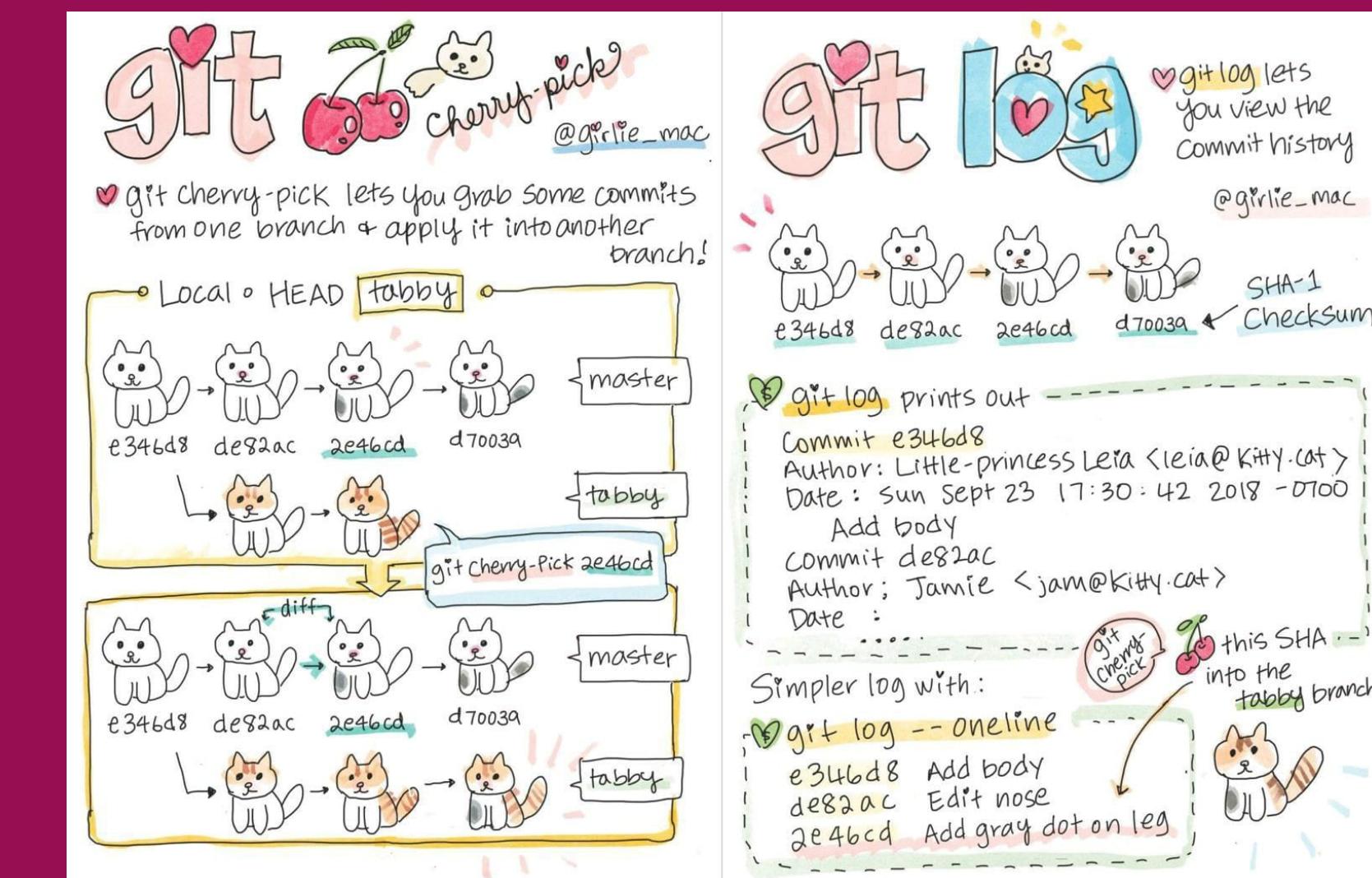
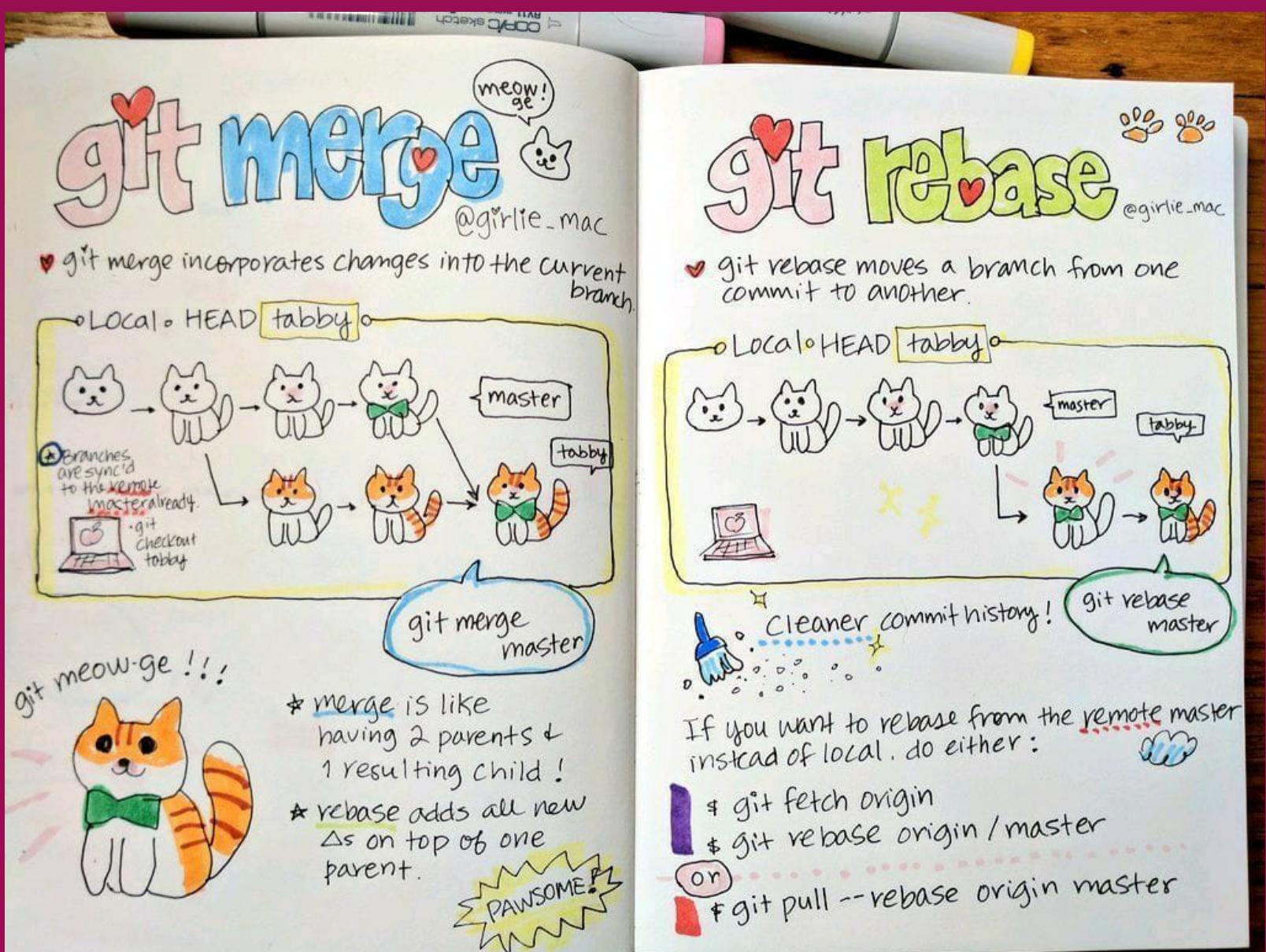
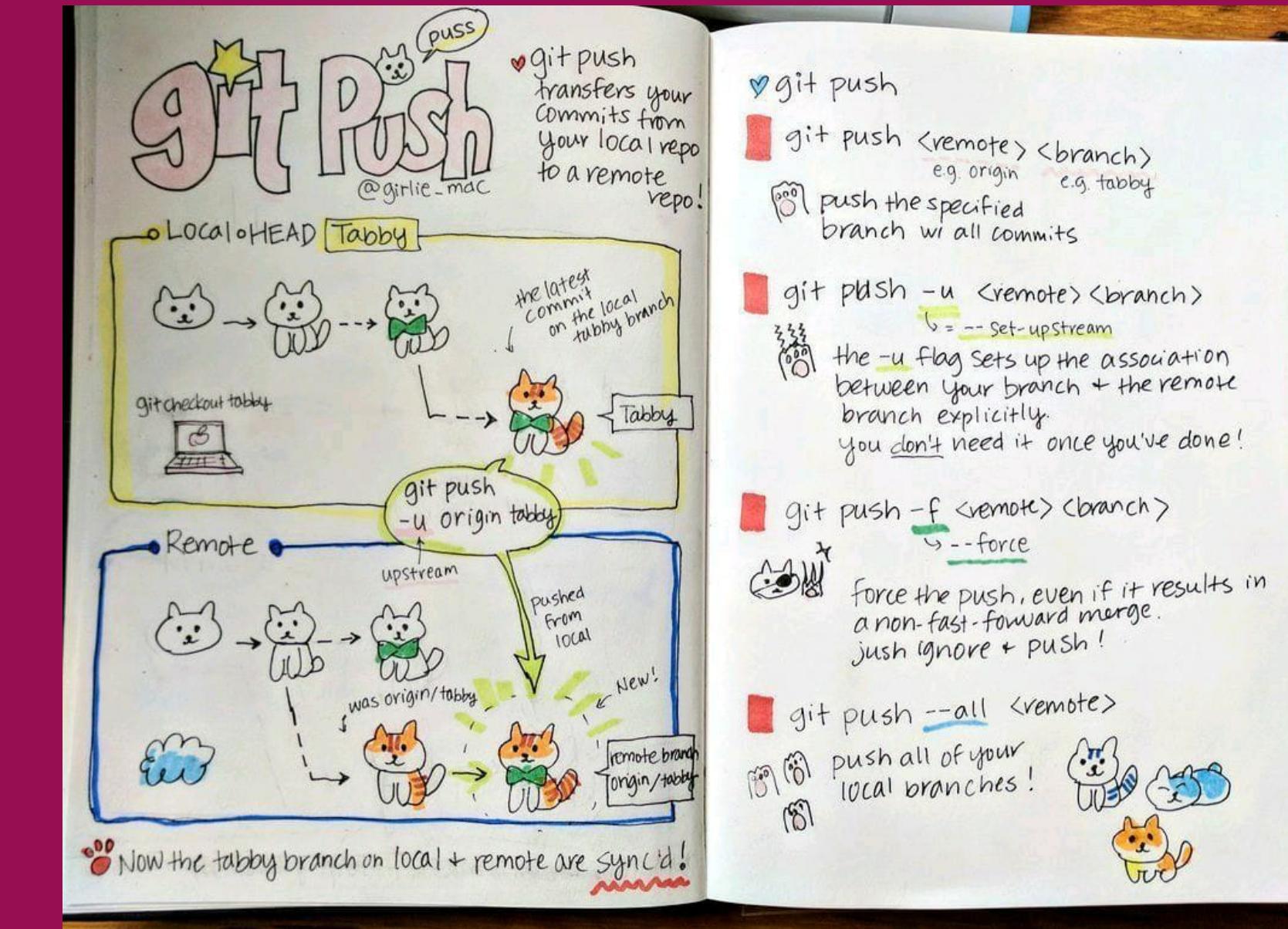
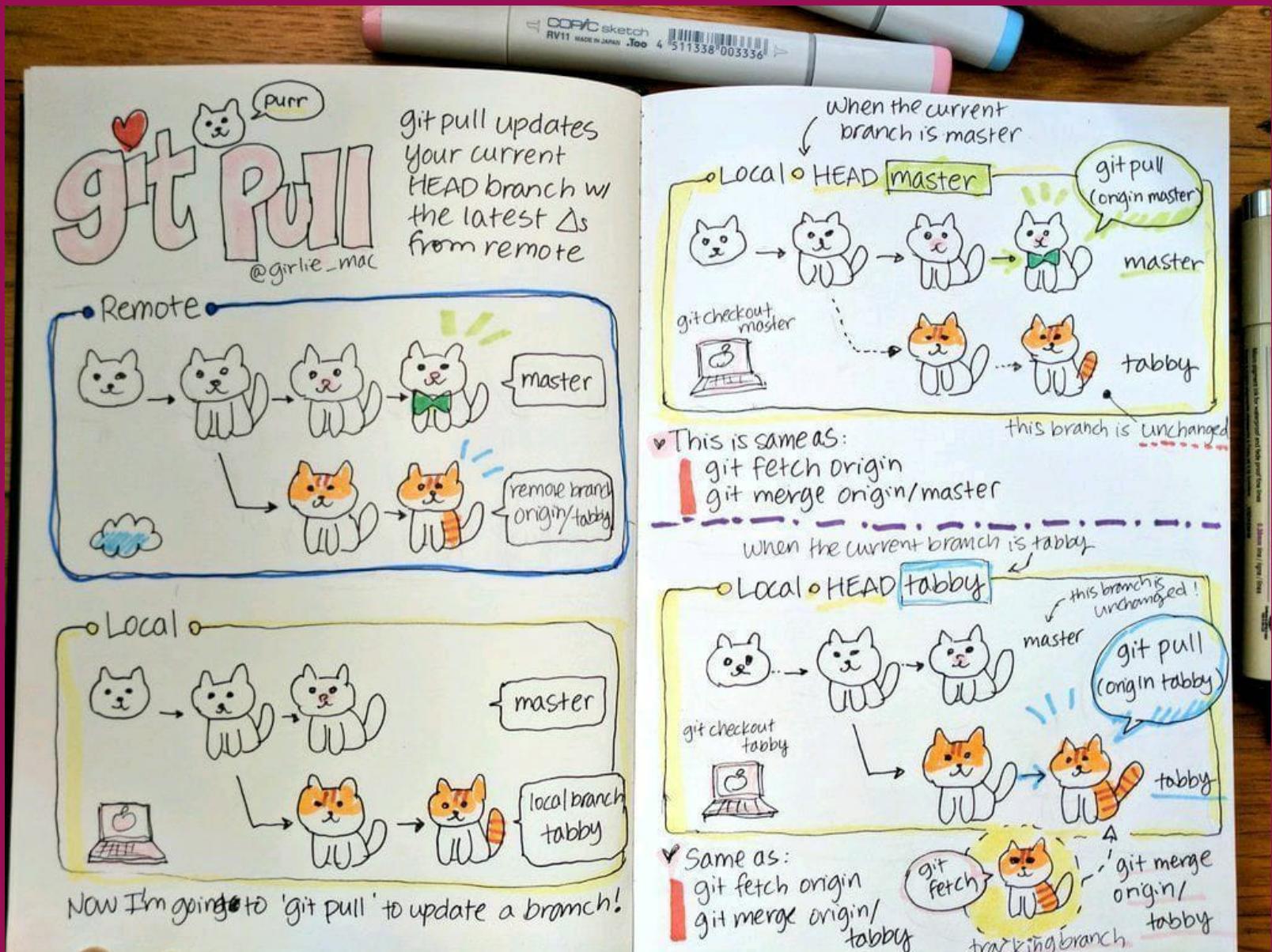
- Git is a *local version-control system*; GitHub (GitLab/BitBucket) are *remote extensions* to git
- Some basic procedures:
 - Initializing git environment
 - `git init`
 - Saving a version (a.k.a. committing)
 - `.gitignore`-file, add files, commit
 - Setting up remote
 - `git remote add <... NAME ...> <URL>`
 - Pushing to remote
 - `git pull <NAME> <branch name>`, [COMMIT PROCEDURE], `git push <NAME> <branch name>`
 - Default <NAME> = origin
 - Default <branch name> = main (formerly master)



Git

- Some other useful procedures:
 - Checking your commit history
 - `git log` (Current Branch) -or- `git global-log` (All Branches)
 - Checking your commit status (maybe you have forgotten what files you add/didn't add)
 - `git status`
 - Creating a branch
 - `git branch <BRANCH NAME>`
 - Checking out a branch/previous commit
 - `git checkout <COMMIT/BRANCH NAME>`
 - Reversing a previous commit/branch
 - `git reset <COMMIT ID/BRANCH NAME>`
 - **StackOverflow is your best friend** 





Courtesy to Tomomi Imura
(Twitter @girlie_mac)

Error Messages

```
▶ sample_list=["A","B","C","D"]
    index="2"
    print(sample_list[index])

⇨ -----
TypeError                                     Traceback (most recent call last)
<ipython-input-12-115b16a758e5> in <module>()
      1 sample_list=["A","B","C","D"]
      2 index="2"
----> 3 print(sample_list[index])

TypeError: list indices must be integers or slices, not str
```



- Some advice

- Keep Calm
 - Read the message, even though you don't fully understand what's going on
 - Contact the internet (Forums, documentation)
 - Proceed to where the error is
 - Did you write the code yourself?
 - Attempt to debug using a debugger (pdb) or print statements
 - Did you use a library?
 - Read through their documentation
 - Ask someone else to take a look at your code

Demo Time

<https://tinyurl.com/ds198ex>

Learning Independently

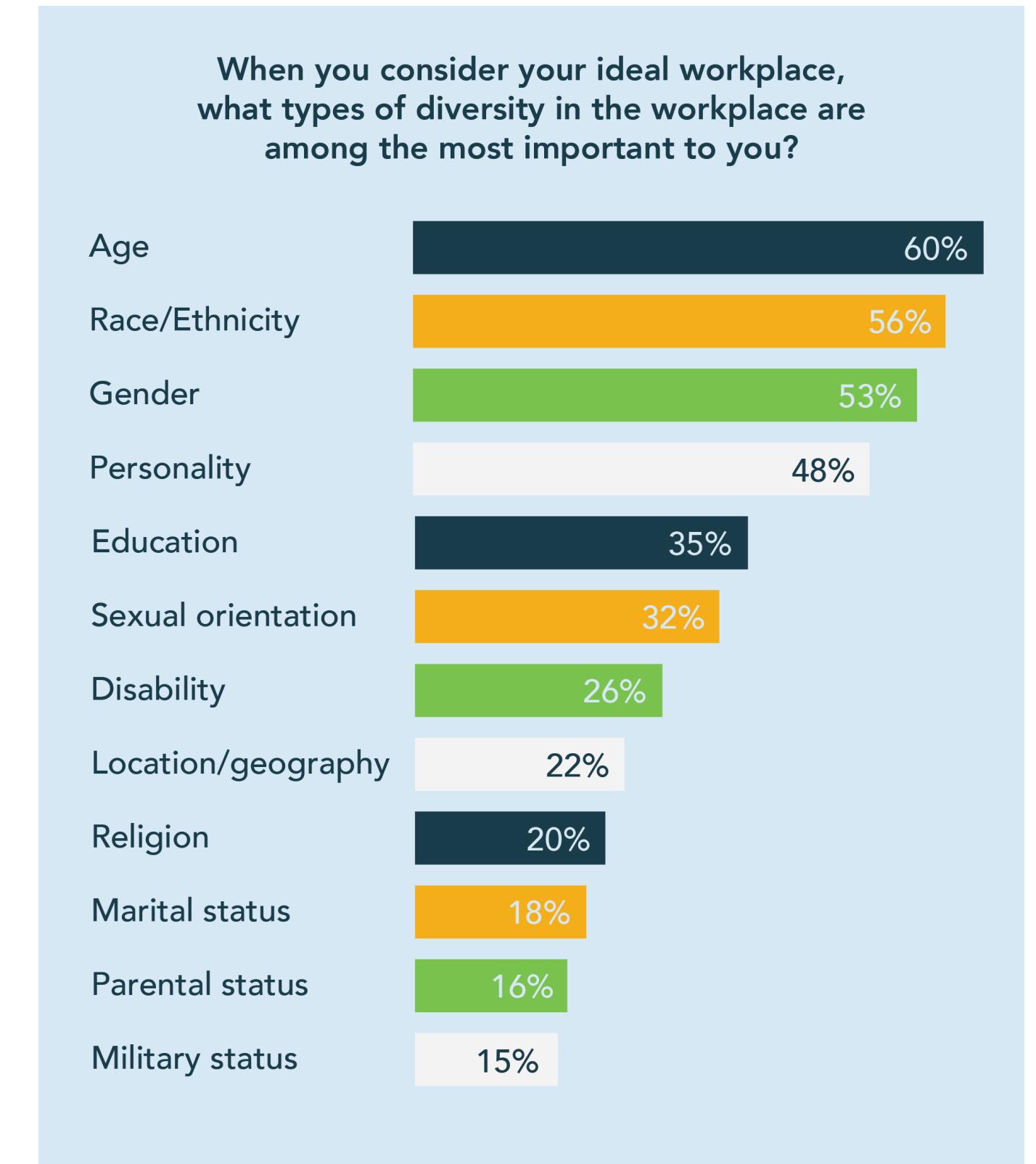
Let's move

<https://tinyurl.com/2p99mw3b>

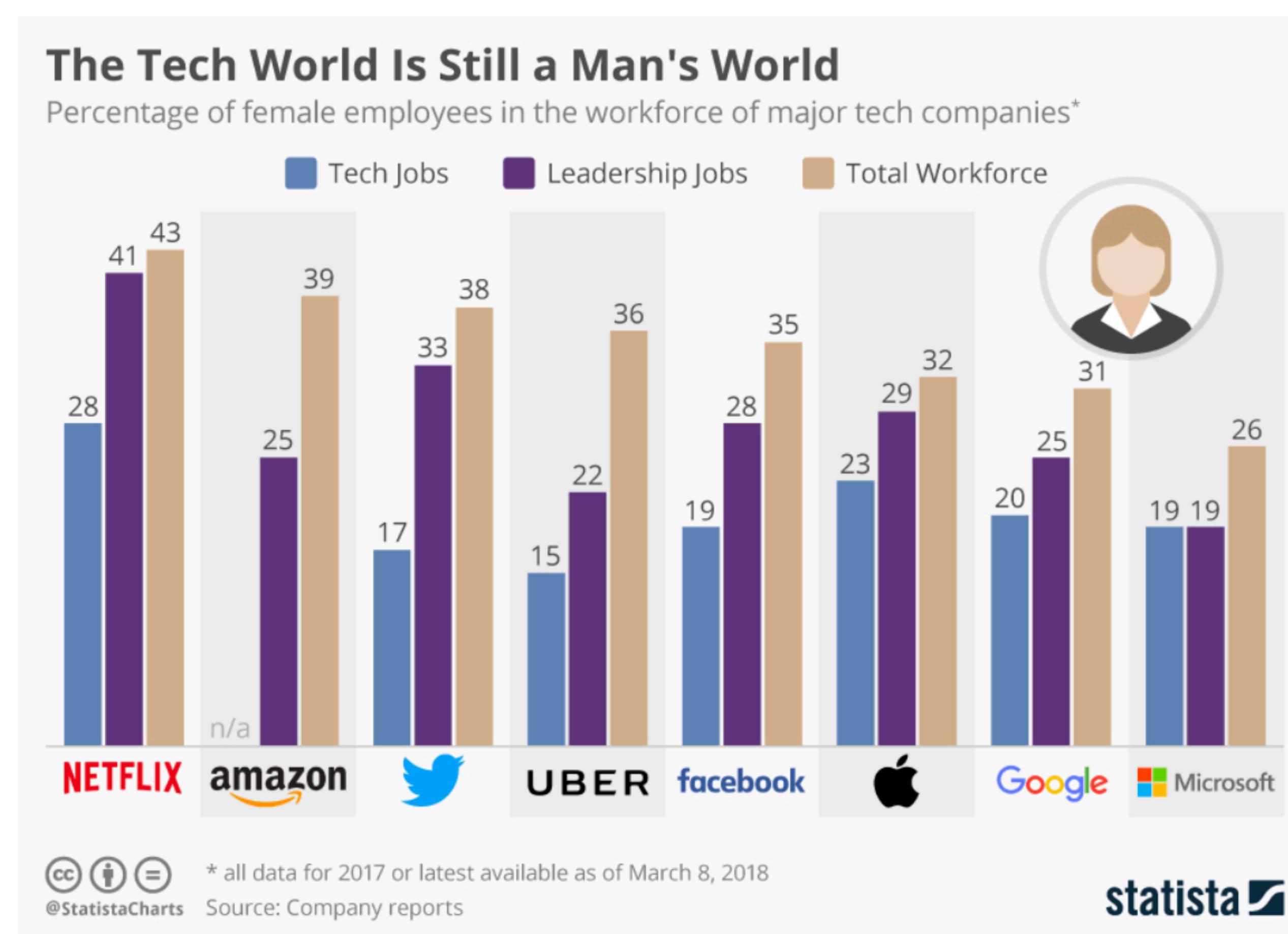
Representation & Values

Work Place Discrimination

- We have different kinds of diversity (See Graphic)
- How can people be discriminated against?
 - Hiring
 - Salary
 - Harassment & Bullying
 - Willful ignorance



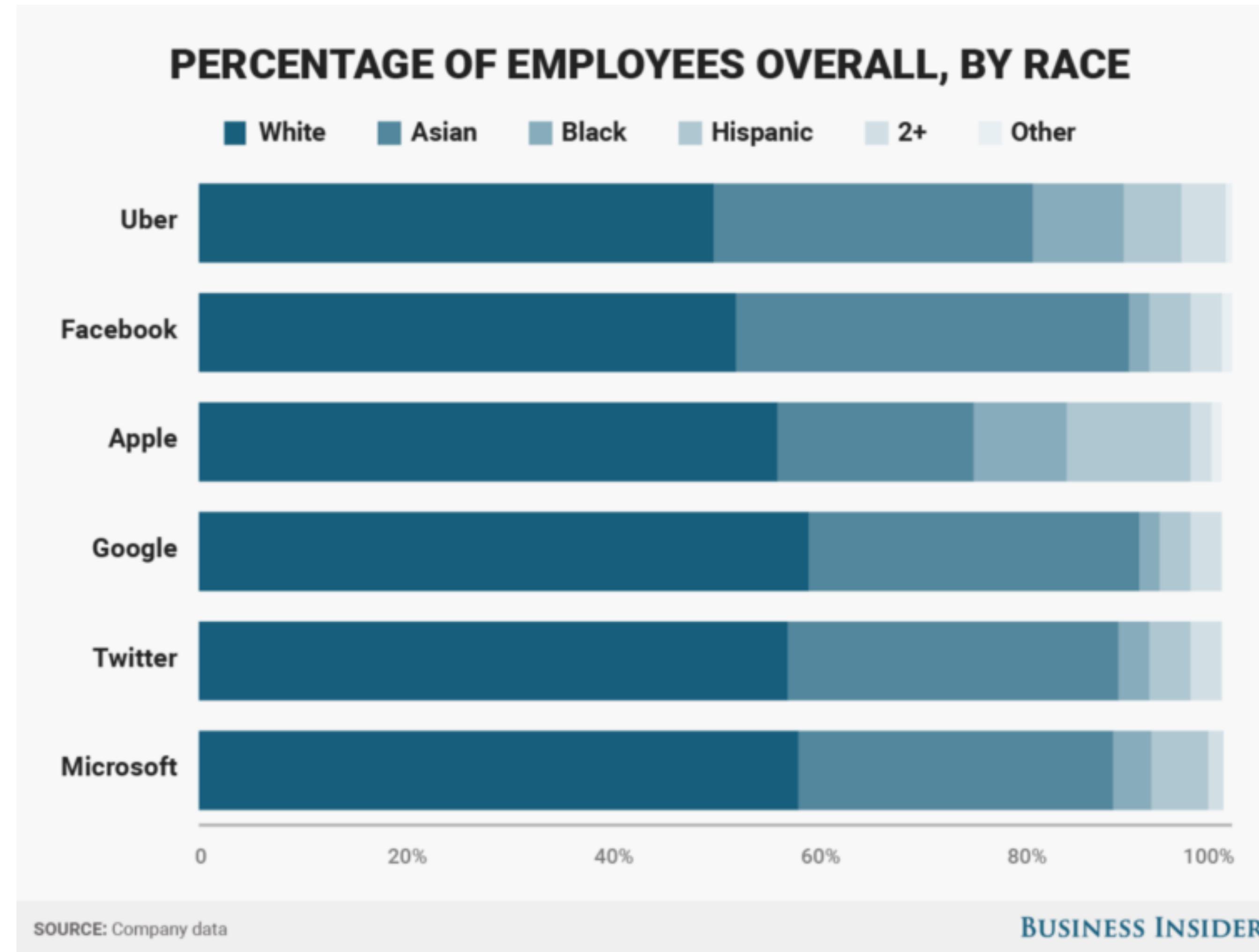
Statistics & Dynamics



Statistics & Dynamics



Statistics & Dynamics



Statistics & Dynamics

Google Researcher Says She Was Fired Over Paper Highlighting Bias in A.I.

Timnit Gebru, one of the few Black women in her field, had voiced exasperation over the company's response to efforts to increase minority hiring.

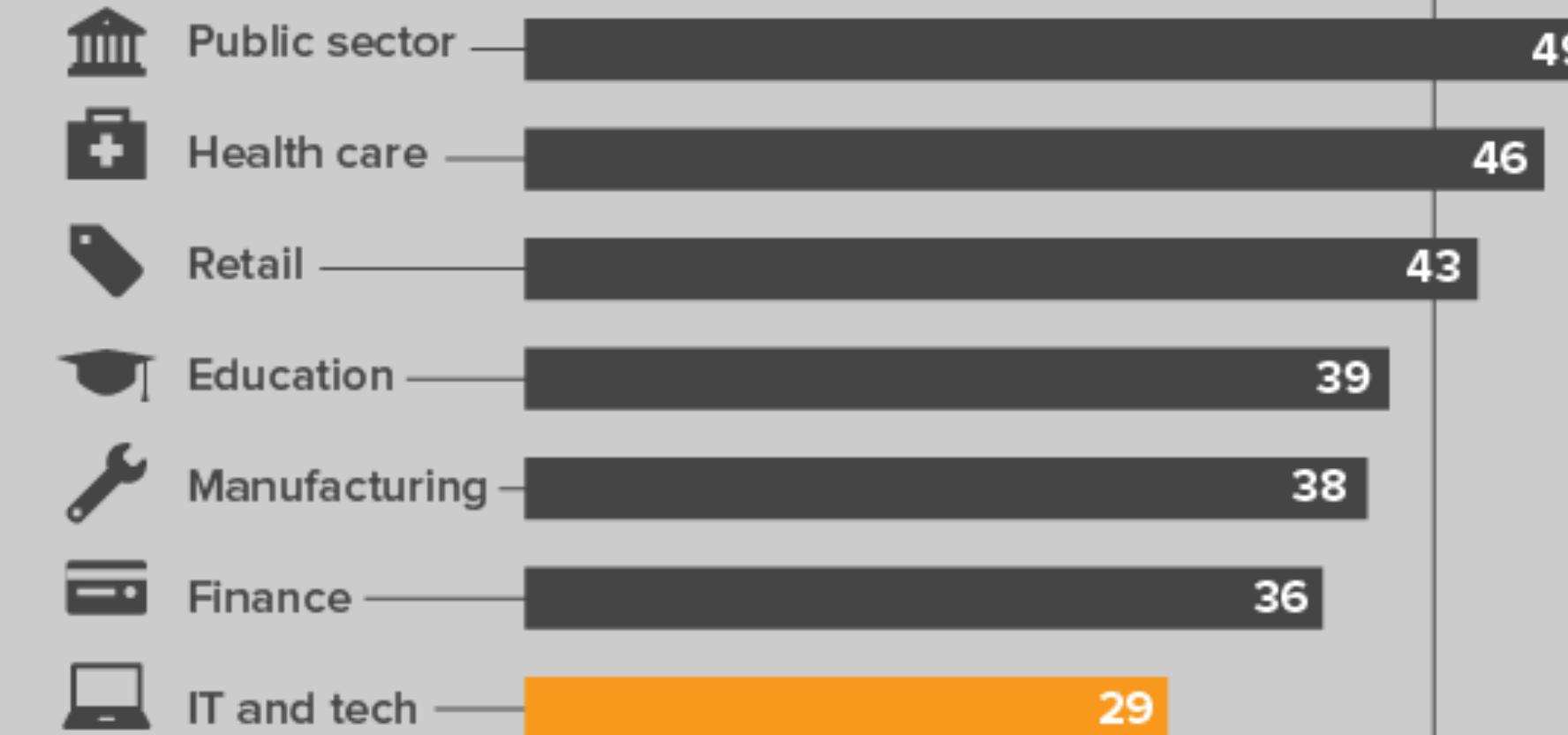
TECH

Google's \$310 million sexual harassment settlement aims to set new industry standards

In 2019, a Muslim woman sued the company Fast Track for refusing to hire her due to her religious practices.



At what age do people start experiencing ageism because of old age at work?



Statistics & Dynamics



Source: Center for Employment Equity. Averages for 177 Silicon Valley companies based on data from 2016 EEO-1 reports.
Credit: Gabriel Hongsdusit and Sinduja Ranganathan/Reveal

Discuss in groups of 2 & 3

Let's think about these issues as Data Scholars:

- What struck you the most?
- Reducing experiences to numbers always leaves out information. What did it omit?
- How does this relate to your experience at Berkeley/internships?
- What can we do about it? What needs to change?