The Alan Turing Institute

Effective Collaboration in a Distributed World

Sophia Batchelor and Emma Karoune

Introductions

Sophia Batchelor
Community Manager
Alan Turing Institute
Core Team Member,
The Turing Way

Emma Karoune
Senior Community Manager,
Alan Turing Institute
Core Team Member,
The Turing Way

Overview

1. What is TPS and *The Turing Way*?

2. Github Introduction

3. Collaborating in Established Projects

4. Next Steps

Overview

1. **What is TPS and *The Turing Way*?**

2. Github Introduction

3. Collaborating in Established Projects
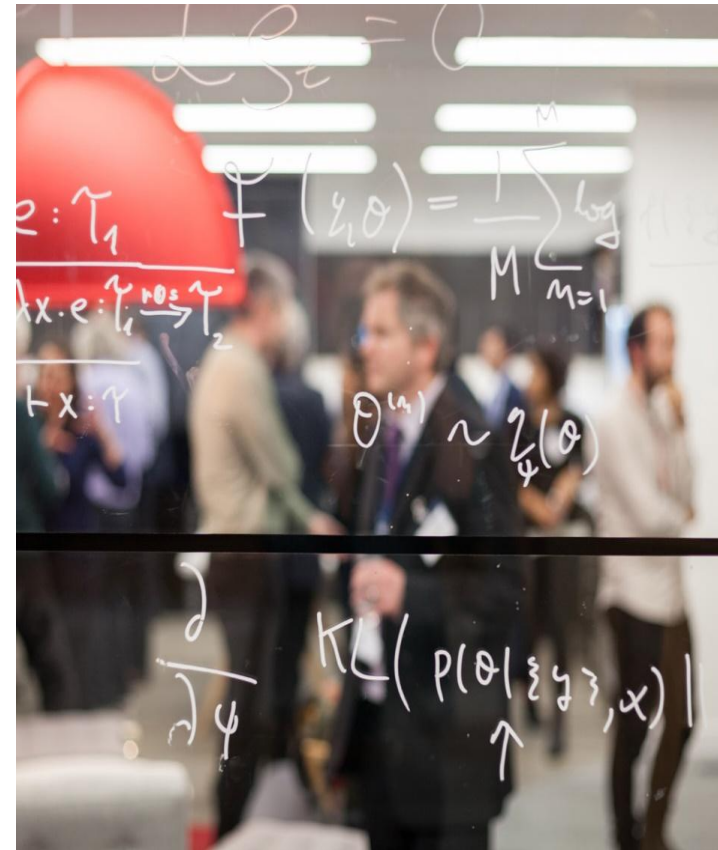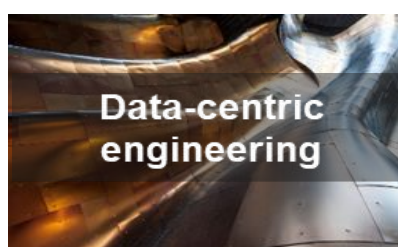
4. Next Steps

The Alan Turing Institute

Established in 2015 as the National Institute for Data Science and AI

- Advanced world-class research and apply it to real-world problems
- Train the leaders of the future
- Lead the public conversation

Research Programmes

Sector specific

Finance and economics

Defence and security

Data science for science

Health and medical sciences

Data-centric engineering

Urban analytics

Cross-Cutting

Tools, practices and systems

Public policy

AI

Data science at scale

Tools, Practices and Systems (TPS)

– Trustworthy systems
– Transparent reporting
– Inclusive interoperable design
– Ethical integrity
– Respectful co-creation
– Leadership in open research

The Turing Way

An Open Source guide on Data Science

We involve and support a diverse community to make data science reproducible, ethical, collaborative and inclusive for everyone
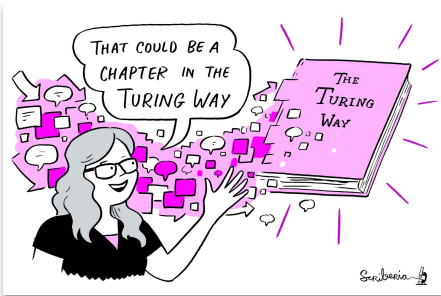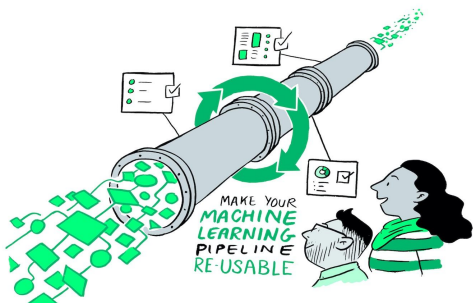
A Book

A Global Community
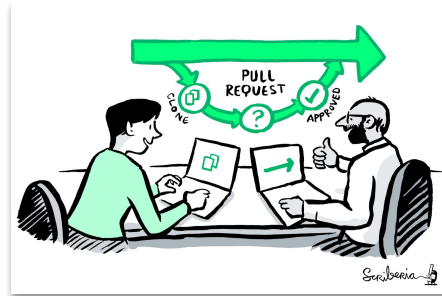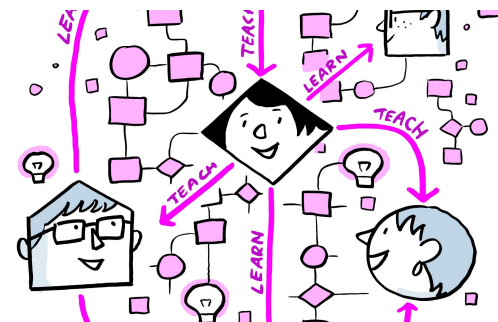
An Open Source Project
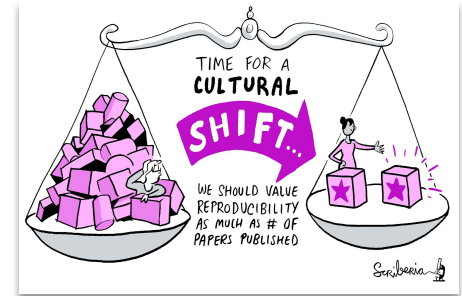
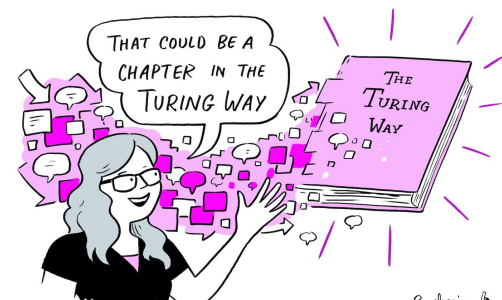A Culture of Collaboration

The Turing Way Guides

Reproducibility
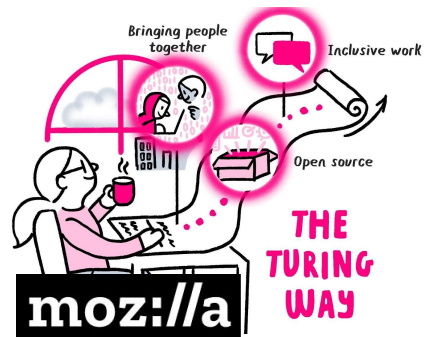

Project Design

Communication
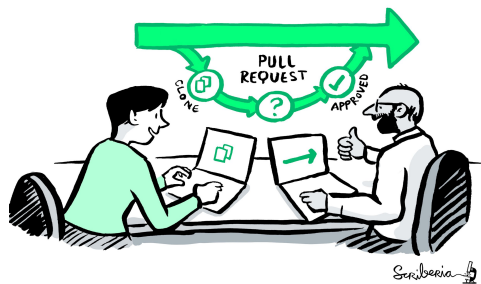
Collaboration
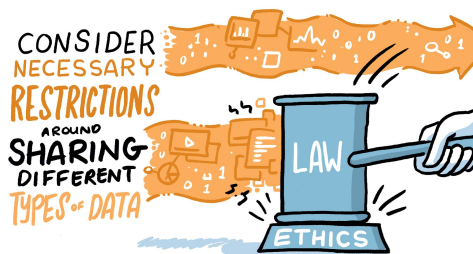
Ethical Research

Community Handbook

The Turing Way

Bringing people together

Inclusive work

Open source

THE TURING WAY

moz://a

Proposal by **Kirstie Whitaker** approved

Create README.md

KirstieJane committed on 1 Nov 2018

PROJECT DESIGN
COLLABORATION
REPRODUCIBILITY
COMMUNICATION & OUT REACH
the turing way
ETHICS
TOO EASY NOT TO DO

250+ live chapters, 340+ contributors, 3000+ Twitter followers, 3000+ monthly visitors of five guides.

2 project leads, a community manager, 10+ part paid staff, volunteer members, 4 translation and localisation leads.

Book Dash 2020,
Project expanded to **five guides**,
Community Handbook, social media,
Translation started. **238 contributors**.

YOUR PATH
YOUR STORIES
YOUR EXPERIENCE

2019

2021

2018

2020

2022

The Alan Turing Institute

Book launched with **10 members**, **3 chapters**, many workshops, **2 Book Dashes**. Year ended with Several chapters by **67 contributors**

THE TURING WAY

Logo was designed with Scriberia

Project growth, **134+ chapters** citation in peer reviewed articles, government reports and policies, new projects emerged as extension. **309 contributors**

hidden REF

Highly commended: *The Turing Way*, The Turing Way Community, The Alan Turing Institute

How we practice collaborative research
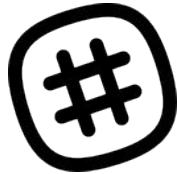

Tools

Practices

Systems

Collaborative Research: Tools

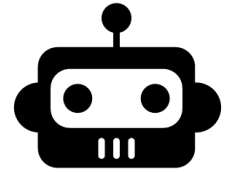**Open Knowledge Management**

Community engagement

Publication & citation

Acknowledgement

Collaborative Research: Practices

Community support

Review & Verification

Maintenance

Localisation
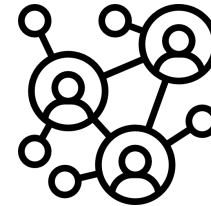
Collaborative Research: Systems

**Open Research
infrastructure**

**Community
infrastructure**

**Network
infrastructure**

Key Practices for Collaboration

Develop & share

Maintain & improve

Share resources

Review and update

Make it global

Share best practices

Key Practices for Collaboration

MENTORED CONTRIBUTIONS

REAL TIME INTERACTIONS WITH EXPERIENCED CONTRIBUTORS

EMPOWERING NEW CONTRIBUTORS

Develop & share

FIXING LINKS

Maintain archive

Share resources

PULL REQUEST

Review and update

Make it global

WORKING

PROJECT MGMT

PROJECT DESIGN
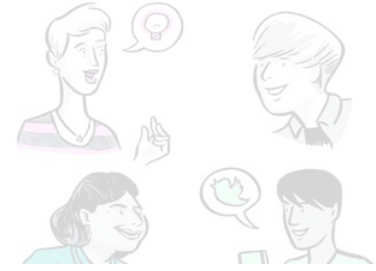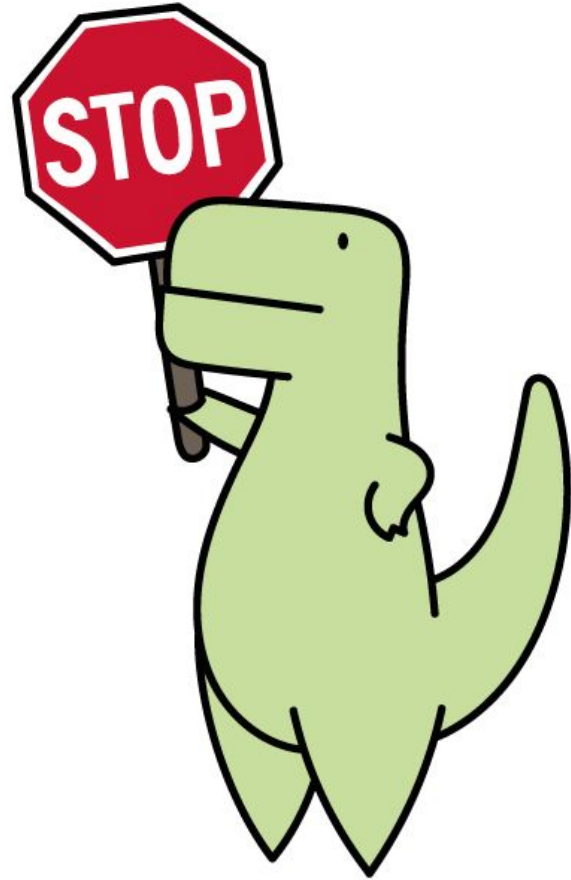
Share best practices

Any Questions?

LoofandTimmy.com

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Let's Git Good:

– Why use GitHub?

– What is GitHub?

– **Exercise**: creating a repository

– Writing in Markdown

– **Exercise**: editing a GitHub page and making a PR

– **Exercise**: Contribute to a project!
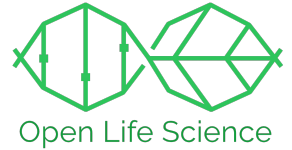
Why use GitHub?

– Collaborative documentation

– Version Control

– Transparency & accountability

– Attribution for contributions

– Project management

Collaborative Documentation

There are challenges in developing collaborative documents...

Collaborative Documentation

There are challenges in developing collaborative documents…

Asynchronous and conflicting edits, location, time zones, and

Collaborative Documentation

There are challenges in developing collaborative documents…

Asynchronous and conflicting edits, location, time zones, and **VERSIONS**!
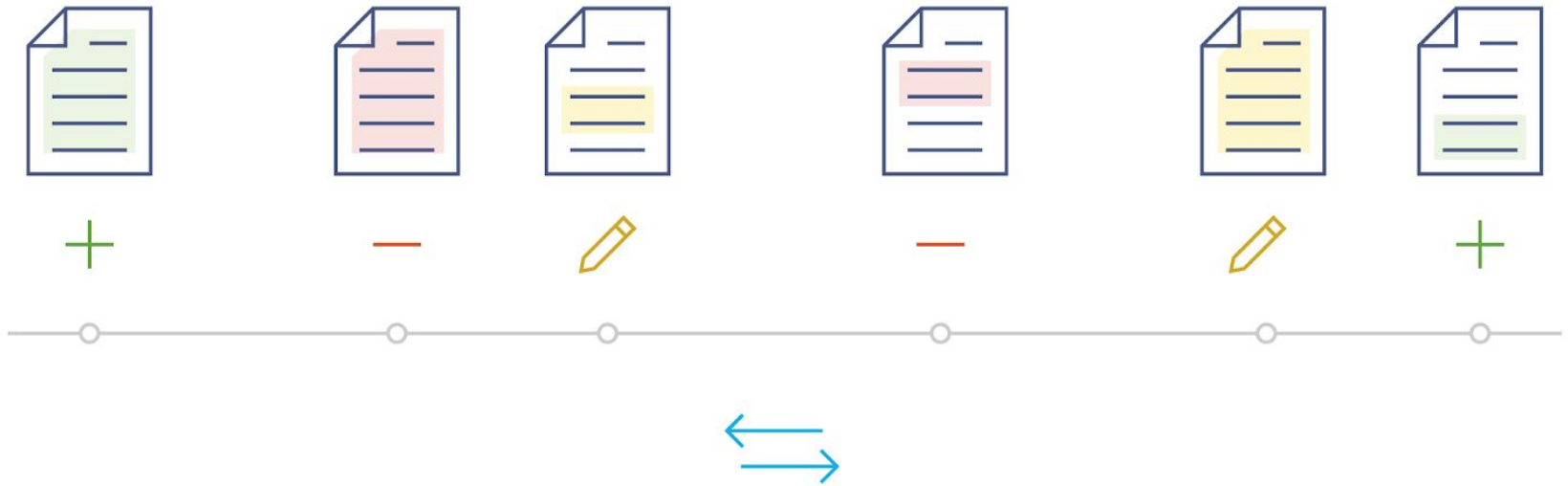
work-copy.js   work-copy-filter.js   work-copy-count.js

VERSION CONTROL

Revisions and Versions
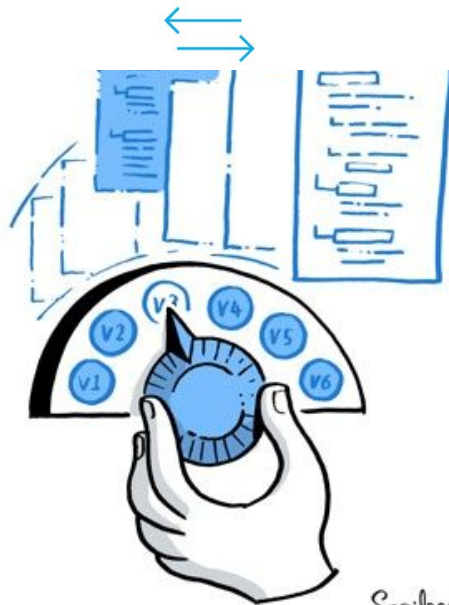
Images from Mozilla Science Lab, Illustration by Scriberia and The Turing Way

Slide by Sophia Batchelor, https://zenodo.org/record/5070361

Collaboration on GitHub
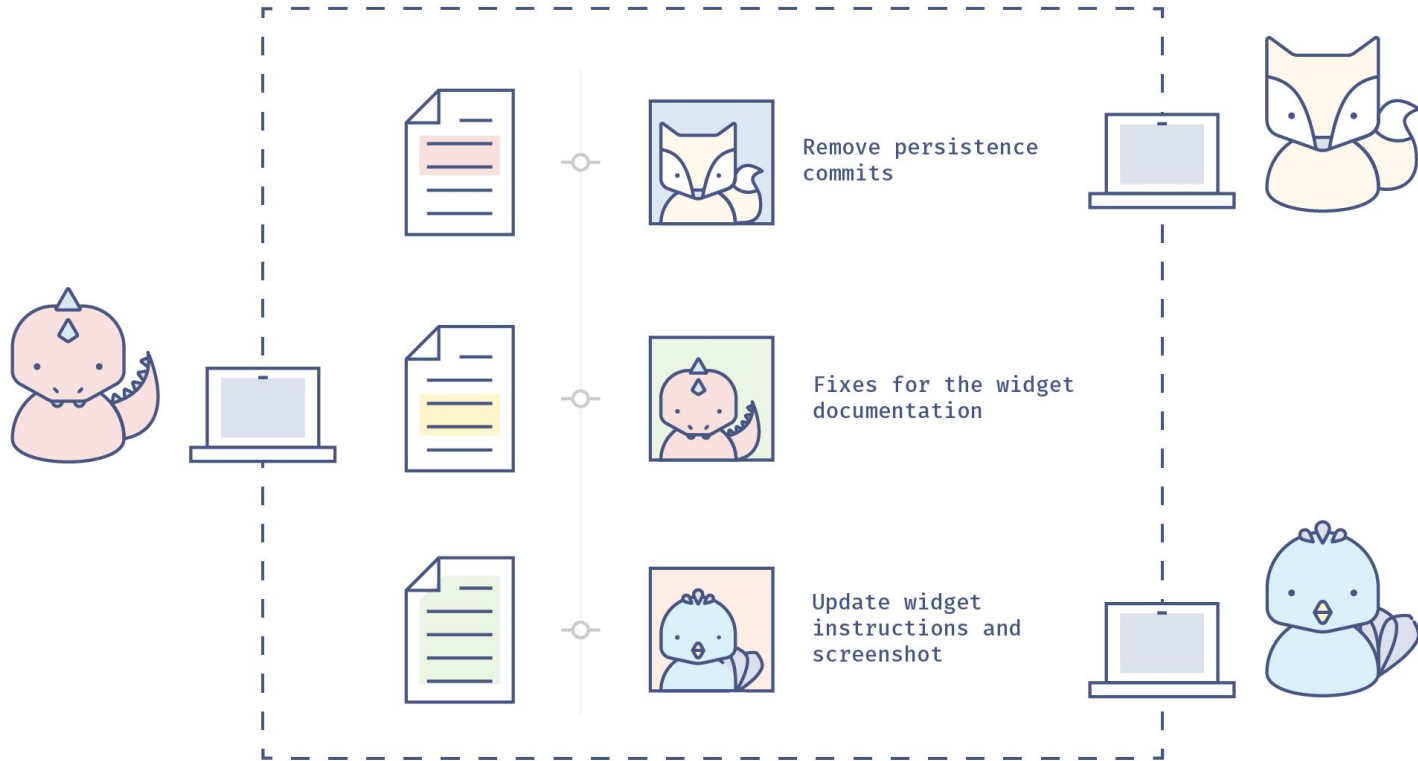
Why use GitHub?

– **hosts your repositories** (projects) online

– helps you **work with contributors**/collaborators

– provides **web interface** for version control

– it can be used for **project management** and communication

– useful for any project where a group of people are working together

GitHub Exercise 1.

I'll first talk through what the exercise is. And then I'll share my screen and we will do it together.

Do you have a GitHub Account?

Go to https://github.com/

Create an account using the sign up.
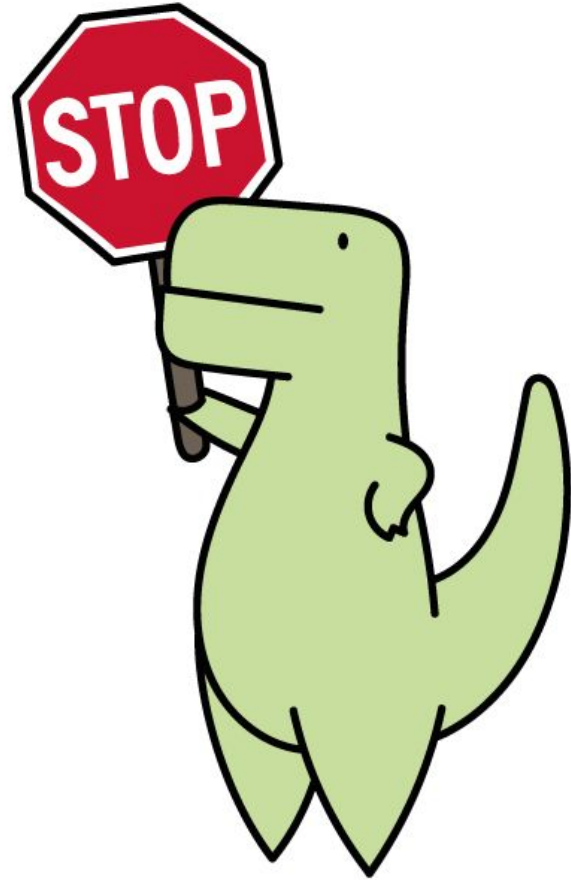
Add your GitHub Username to the HackMD.

LoofandTimmy.com
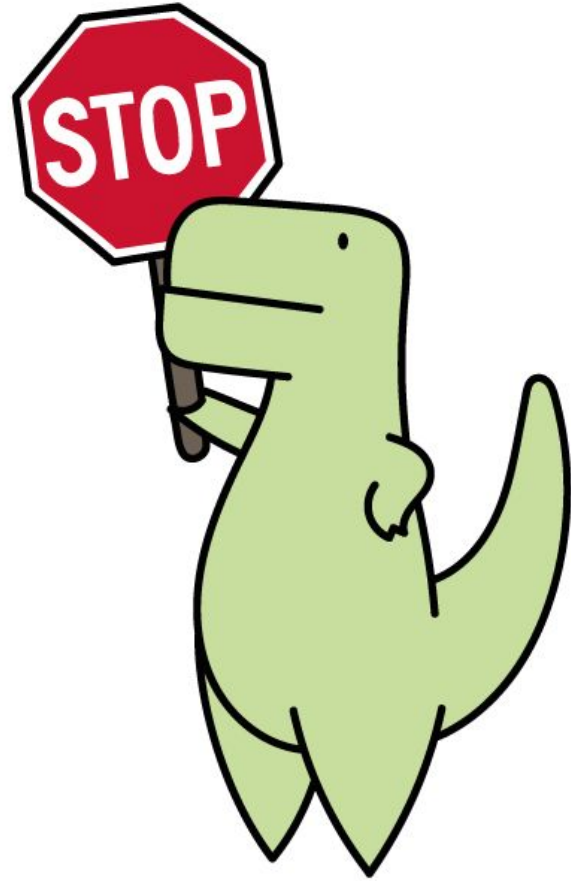
Creating a **Repo**.

Repository (Repo)

A project where all your files are, online or on your computer

Creating a **Repo**.

"trial-repo" →

Repository (Repo)

A project where all your files are, online or on your computer

---

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? Import a repository.

Repository template
Start your repository with a template repository's contents.

[No template ▾]

Owner *   **Repository name** *

[👤 BrainonSilicon ▾] / [trial-repo   ✓]

Great repository names are s[trial-repo is available.] Need inspiration? How about **potential-broccoli**?

Description (optional)

[   ]

🔘 🖥 **Public**
      Anyone on the internet can see this repository. You choose who can commit.

⚪ 🔒 **Private**
      You choose who can see and commit to this repository.

Initialize this repository with:
Skip this step if you're importing an existing repository.

☐ **Add a README file**
   This is where you can write a long description for your project. Learn more.

Add .gitignore
Choose which files not to track from a list of templates. Learn more.

[.gitignore template: None ▾]

Choose a license
A license tells others what they can and can't do with your code. Learn more.

[License: None ▾]

ⓘ You are creating a public repository in your personal account.

[**Create repository**]

Markdown (.md) for formatting.

Create a README file

- Landing page for your repo

- Information about your project

- List tasks of varying expertise clearly

- Add names/ids of your collaborators

- Invite others with specific skills

…let's write it in style with Markdown

Markdown (.md) for formatting.

Markdown is a simple text "markup" language made for quickly writing formatted text

Great for blogs, documentation, and even writing papers.

You may have used it in HackMD.

Untitled — Edited   0 Words

Create a **README** in Markdown.

Write whatever you would like!

- About the project
- Today's date
- A hello world message!

…remember to title your file
README.md to indicate the
markdown file type.
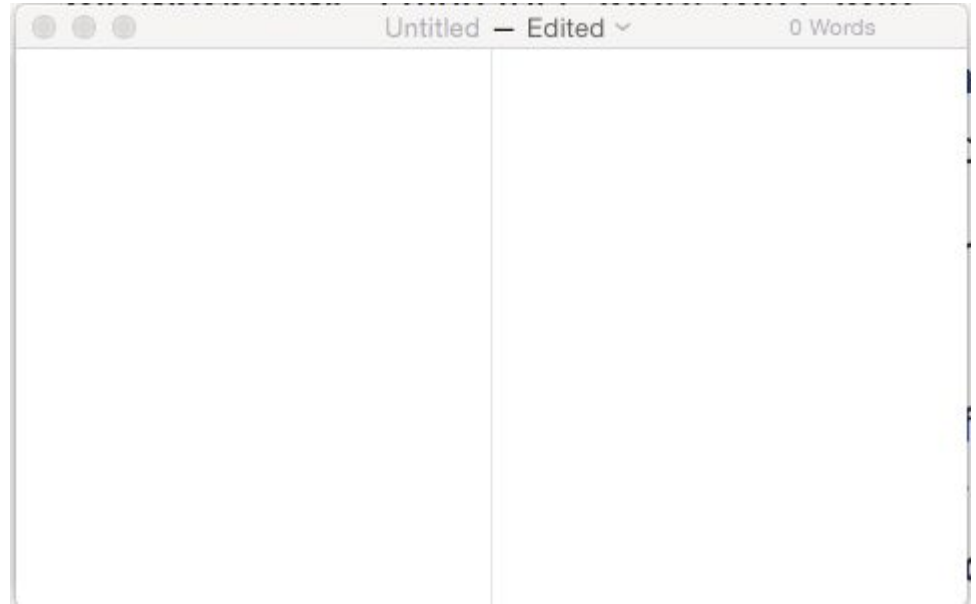
Demo Exercise 1.

Let's dive in and set up our first repo together.

CONGRATS!!

You created your first repo.

GitHub's Vocab

- Commit

- Branch & Fork

- Pull request
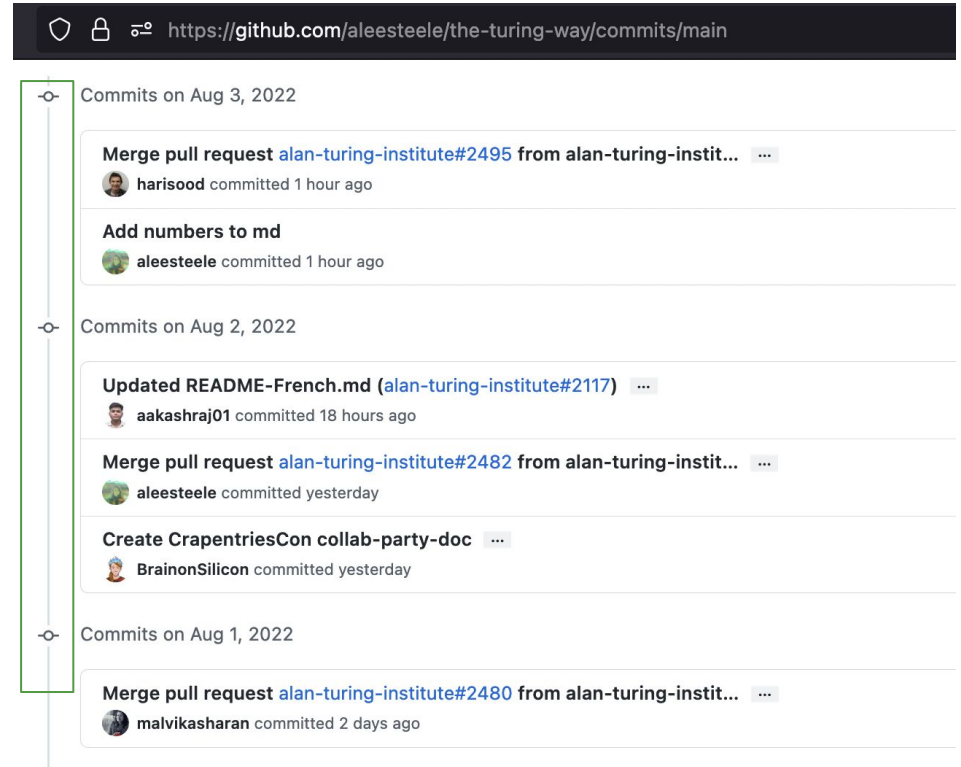
- Merge
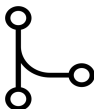
Commit ⦵

Saving a version of file(s)

● 'commit' changes with message (i.e.'My first commit')

Branch & Fork

- **Branch**: pointers to a specific commit in **your** repo, temporary places to work through a feature ← you have **write** access

Branch & Fork

- **Branch**: pointers to a specific commit in **your** repo, temporary places to work through a feature ← you have **write** access

- **Fork**: copy of repo that is an entirely **independent repo** ← no need of write access or intent to merge with the main
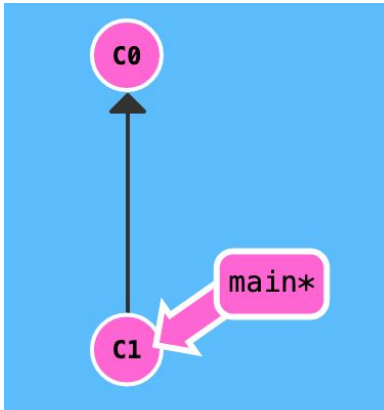
alan-turing-institute / **the-turing-way**

aleesteele / **the-turing-way**
forked from alan-turing-institute/the-turing-way
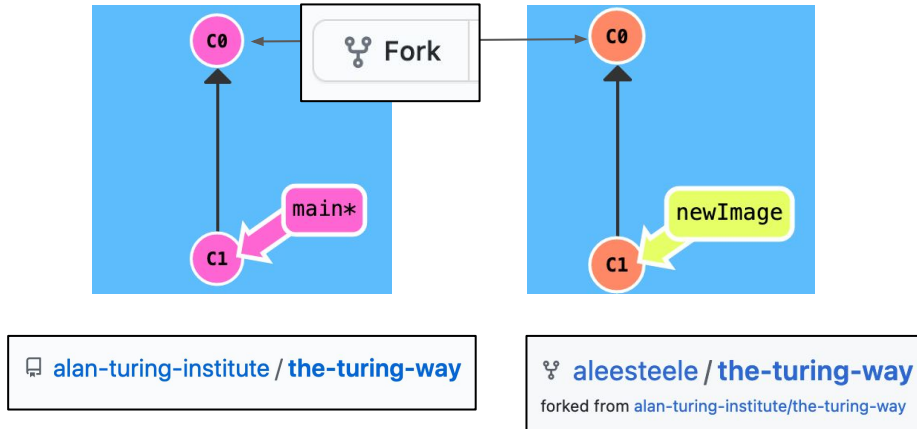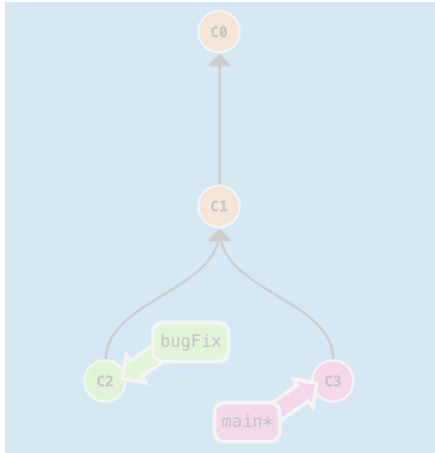
Fork & Pull Request.

If you don't own a repo and aren't an official collaborator:

a. you will **Fork a repo**
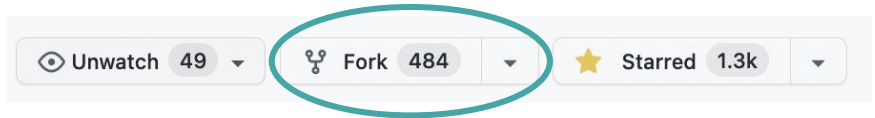
b. work on your forked copy of the repo

c. *make a Pull Request for the changes you've made*

d. *author/owner will decide to merge them in.*

e. Make friends + Big party!

Pull Request & Merge

Pull request
<u>request</u> to add your changes from a branch back into main.

Merge
<u>act</u> of incorporating new changes (commits) from one branch to another.
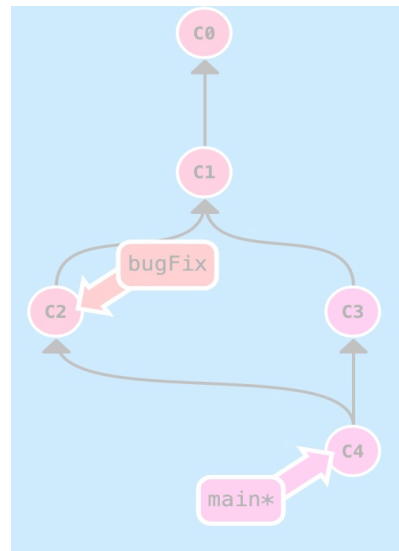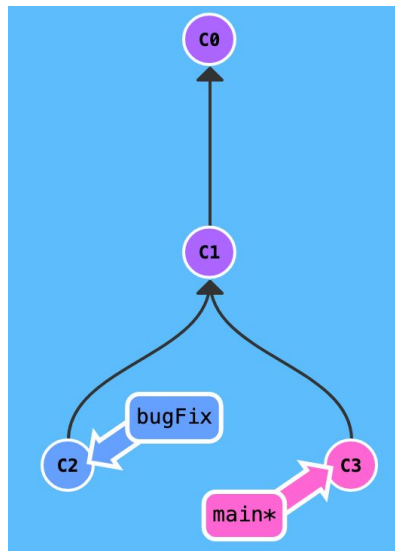
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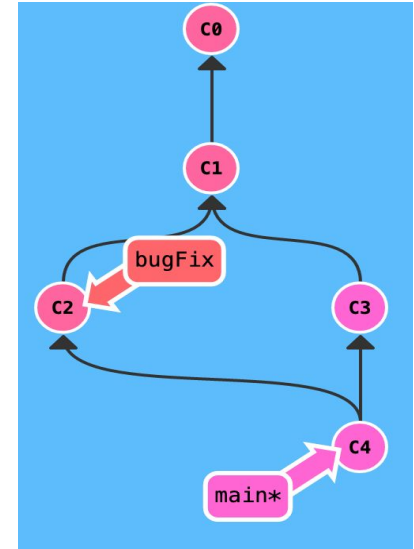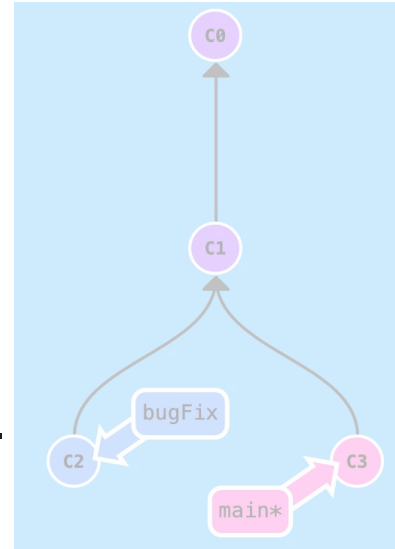
GitHub Exercise 2.

Let's edit a page and submit a
Pull Request (PR).

Same as before. I'll talk
through it, and then we'll do it
together.

Let's Do This.

Pull Request (PR) - 1

Task 1: Edit the file with your details and create a new branch.

friendly-collab-party / workshop / **Introductions.md**

Friendly Collab Party

About this file.

This directory is for our awesome collaboration workshop 🎉. Add your name to the list of folk who have taken this workshop before so we can ✨**collaborate**✨!

Edit this file

Raw | Blame | 🖥️ | ✏️ | 🗑️

```
## Add your name here
1. Anne Lee Steele
2.
3.
4.
5.
6.
7.
8.
9.
10.
```
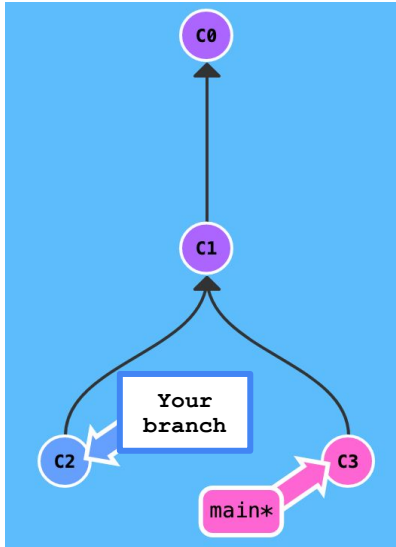
Pull Request (PR) - 2

Task 2: Submit a Pull Request of your branch to main.
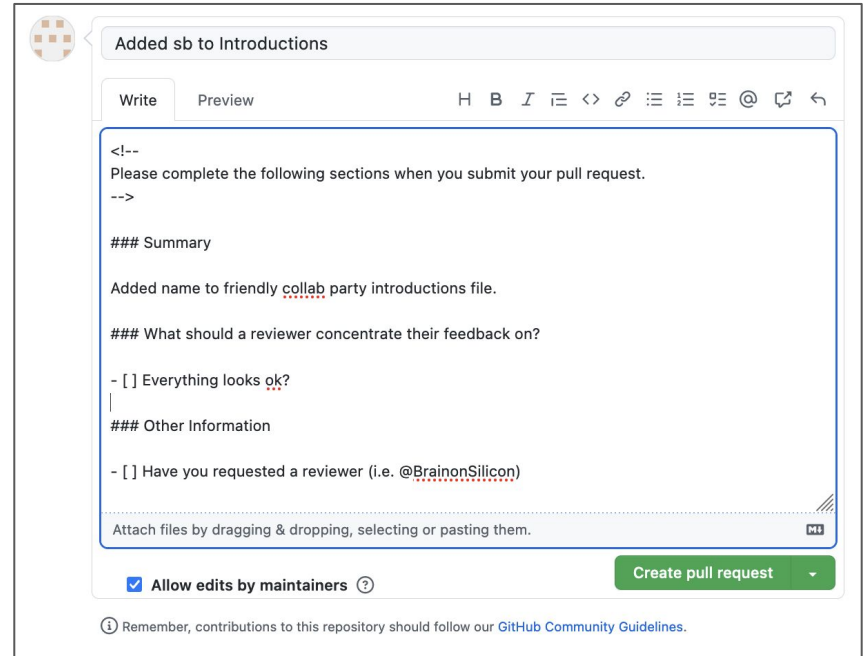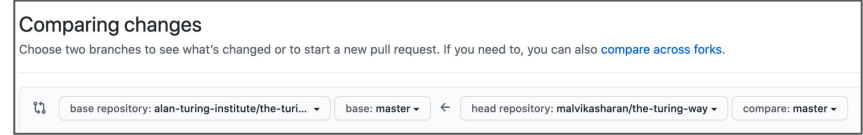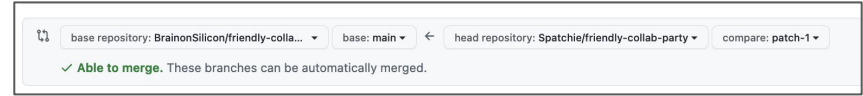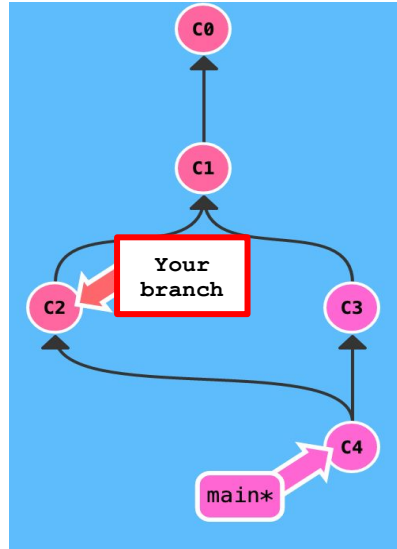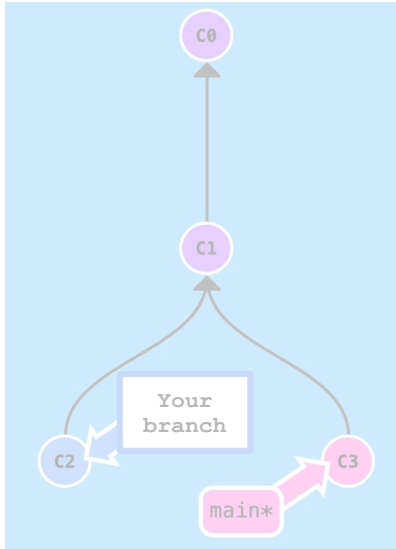
GitHub Exercise 2.

Let's do it together.

Any Questions?
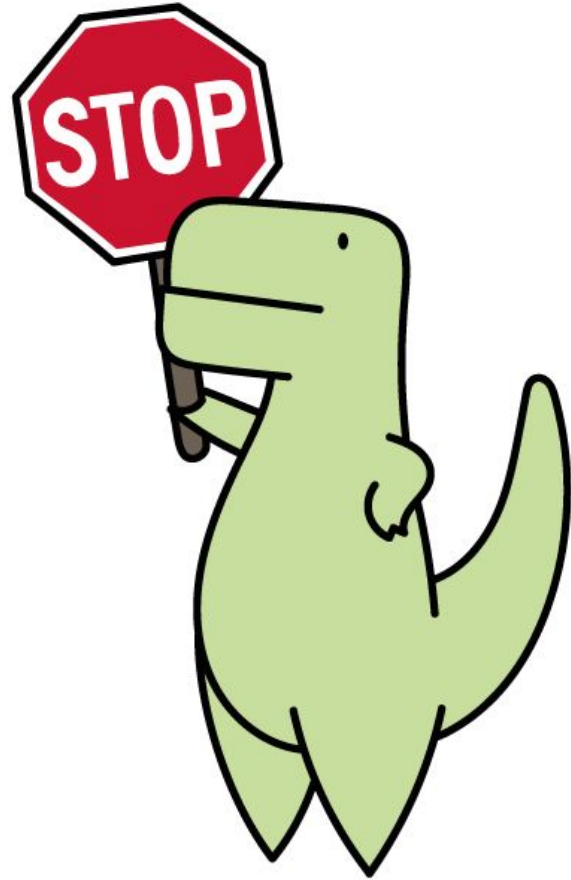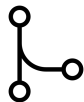
LoofandTimmy.com

Merge

- **Merge**: combining the work from two different branches together after review
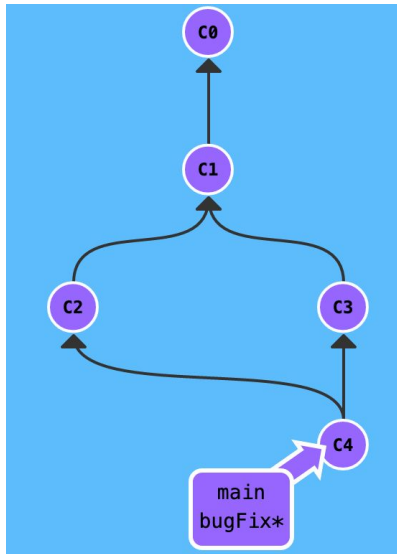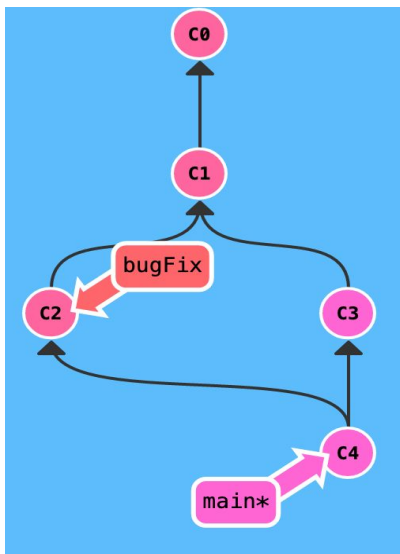
CarpentryCon: Sample Pull Request #2497

🟢 Open aleesteele wants to merge 1 commit into `main` from `aleesteele-patch-2`

💬 Conversation 1   ⊙ Commits 1   ☑ Checks 7   ⊞ Files changed 1

aleesteele commented 9 minutes ago · edited ▾   Member 😊 •••

- Sample pull request for CarpentryCon workshop
- Corresponds to slide 48

💬 Conversation 1   ⊙ Commits 2   ☑ Checks 13   ⊞ Files changed 1

Merge

- **Merge**: combining the work from two different branches together after review
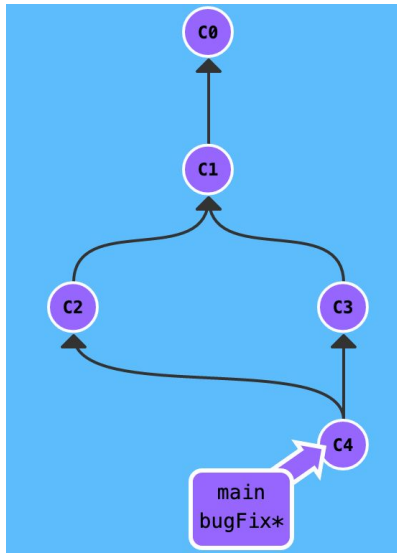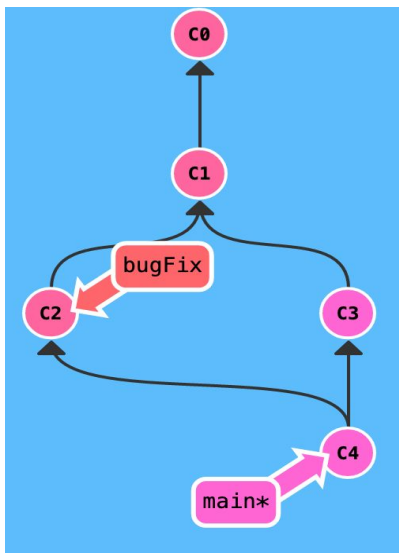
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💬 Conversation 1   Commits 2   Checks 13   ± Files changed 1

workshops/github-workshop/2022-08-04-carpentriescon.md

@@ -3,6 +3,8 @@

3 3   ## About
4 4   This is a repo for our awesome collaboration workshop called "Git Good" :tada:
5 5

6   + The link to this page can be found here: https://github.com/alan-turing-institute/the-turing-way/blob/main/workshops/github-workshop/2022-08-04-carpentriescon.md
7   +

Any Questions?
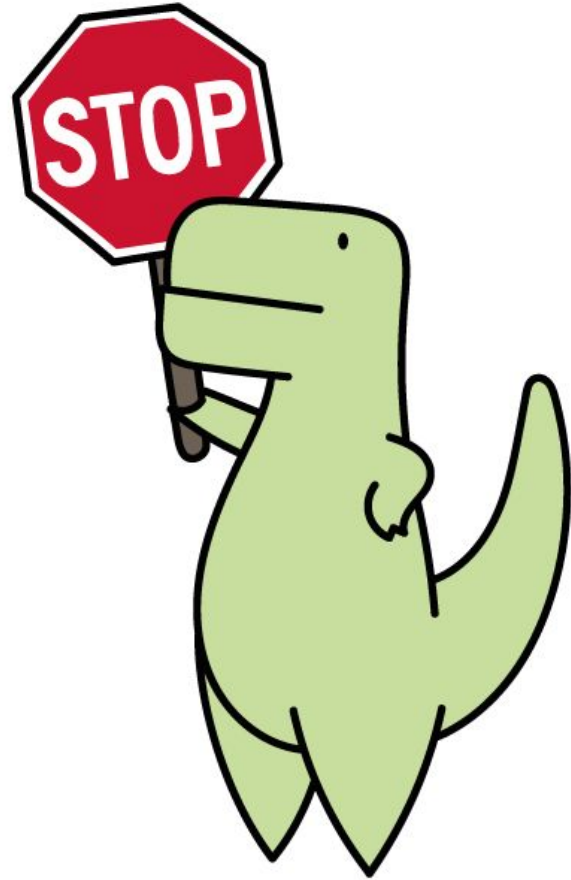
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The Alan Turing Institute

Effective Collaboration in a Distributed World

Sophia Batchelor and Emma Karoune

What we've learnt…

- Introduction to using Github
  - Version Control, Git
  - Markdown format
  - Commit, Branch & Fork, Pull Request, Merging and Merge conflict.
- Making your first repository
- Merged your first pull request! 🚀

Behind the scenes…

Collaborative Repositories
- READMEs
- Collaborative Documentation
- Template PRs
- Collaborator access
- Descriptive PRs & Commits

Community Building
- WelcomeBot
- Contributing Guidelines
- Recognizing Contributions

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- Recognizing Contributions

72 lines (332 sloc) | 39.3 KB   ⟨⟩ 📄 Raw Blame

Contributing to *The Turing Way*

🎉🎈🛶 Welcome to *The Turing Way* repository! 🛶🎈🎉

🌜🌟🌟 *We're excited that you're here and want to contribute.* 🌟🌟🌜

We want to ensure that every user and contributor feels welcome, included and supported to participate in *The Turing Way* community. We hope that the information provided in this document will make it as easy as possible for you to get involved.

We welcome all contributions to this project via GitHub issues and pull requests. Please follow these guidelines to make sure your contributions can be easily integrated into the projects. As you start contributing to *The Turing Way*, don't forget that your ideas are more important than perfect pull requests. ❤️

If you have any questions that aren't discussed below, please let us know through one of the many ways to get in touch.

Table of contents

Been here before? Already know what you're looking for in this guide? Jump to the following sections:

- Joining the community
- Inclusivity
- Get in touch
- Contributing through GitHub
- Writing in Markdown
- Where to start: issues
  - Issue labels
- Making a change with a pull request
  - 1. Comment on an existing issue or open a new issue referencing your addition
  - 2. Fork *The Turing Way* repository to your profile
  - 3. Make the changes you've discussed
  - 4. Submit a pull request
- The process of writing chapters
- Style Guide
- Representing *The Turing Way*
- Recognising Contributions

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1. What is TPS and *The Turing Way*?

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3. **Collaborating in Established Projects**

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Contributing to Collaborative Projects

It's *hard work*!

What is your experience with contributing to collaborative or open source projects?

Issues vs Pull Requests (PR)

- With a **issues**, you can **propose ideas for possible changes**, and invite discussions before you **make a PR** (or do something else).

- With a **pull request**, you can **propose changes**, discuss, and iterate on before you **merge** the changes into the project.
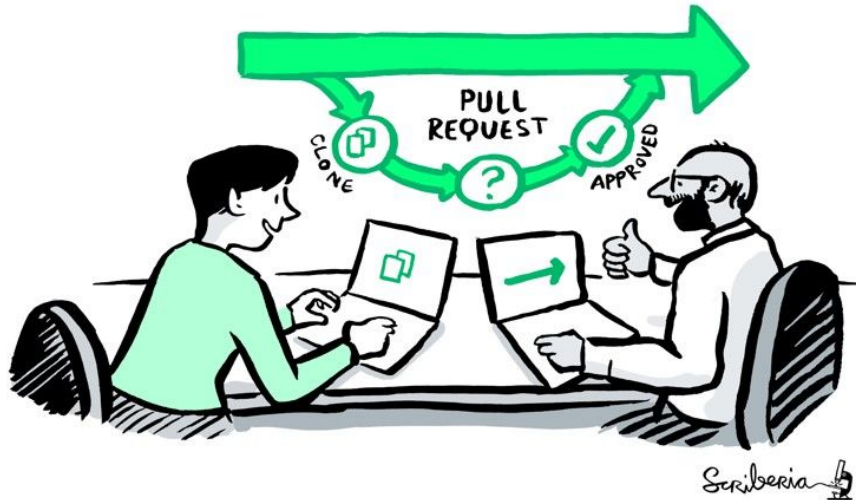
Using Issue & PR Features

- Different **contributors can see** what you are working on and offer help, share thoughts or learn from your work.

- Provide sufficient details, respond patiently, accept constructive feedback and **invite collaboration**.

Contributing to *The Turing Way*

The Turing Way: **Github Repository**

We will be editing this together!

The Turing Way: **Github Repository**

Community standards

Learn more about contributing to the project

Learn more about the project here

Community contributors

Contributing to *The Turing Way:* Issues

Contributing to *The Turing Way:* Making a Pull Request

Issue

Propose Changes

Contributing to *The Turing Way:* Making a Pull Request

Editing Pull Request

Create Pull Request

Contributing to *The Turing Way:* Issues & Pull Requests

Review Pull Request

Merge changes!

Contributing to *The Turing Way:* DEMO!

I'll do an example first:
https://github.com/alan-turing-institute/the-turing-way/issues/2697

Any Questions?

Let's dive in!

<hackmd link>

- You'll each be added to a **breakout room in groups**: your breakout room number is on the etherpad
- There is **one issue** assigned to each room
- Have a go at resolving the issues! We'll be rotating through the rooms if you get stuck

If you finish early, feel free to find an issue you're interested in working on: and get started!

Tips for the breakout rooms:

<hackmd link>

- Add a comment to the issue with who is working on it (remember to add their Github usernames with an @ sign!)
- 1 person making the PR
- Link the associated issue

Main room: for anyone who missed a part of the workshop!

Overview

1. What is TPS and *The Turing Way*?

2. Github Introduction

3. Collaborating in Established Projects

4. **Next Steps**

So you've learned how to contribute to an open source project…
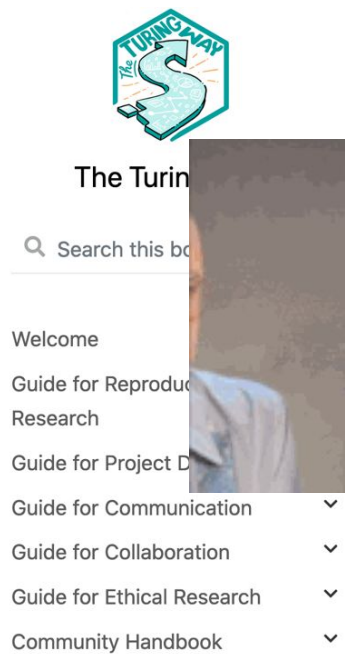
What you've accomplished!

- Introduction to Github
- Made first repository!
- Contributed to *2 repositories!*
- Fixed bugs in an existing project.

🎉 Congratulations! 🎉

Next Steps

- This week, we'll be reviewing your pull requests:
  - Tags for 'all-contributors' bot
  - Reviewing + accepting changes (and fixing any merge conflicts!)
  - Remember to login + accept your merge requests
- Adding you to the contributor table: https://github.com/alan-turing-institute/the-turing-way#contributors

Keep in touch with The Turing Way community and use the references in the book.

Join a Community Event

Next Collab cafe - 19 October!

- *Collaboration Cafes*
  - – 1ˢᵗ & 3ʳᵈ Wednesdays (14:00 UTC)
- *Coworking Calls*
  - – Mondays (10:00 UTC)
- *Fireside Chats*
- *Book Dash*
- *Community Share-out*

bit.ly/turingway

Get involved with the community
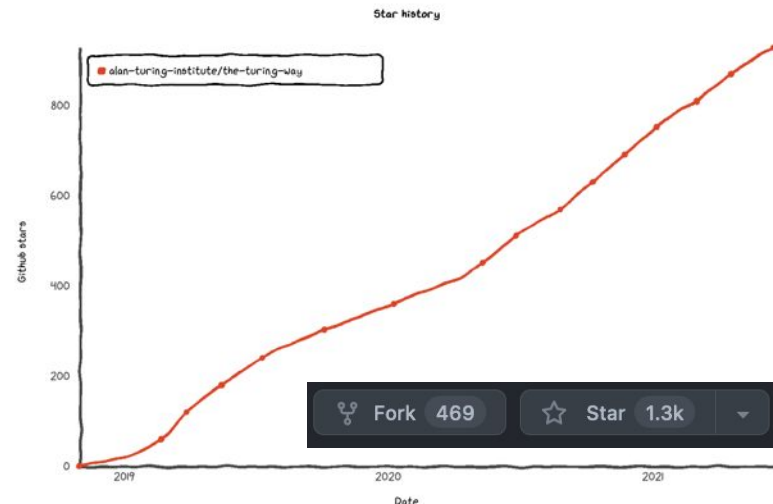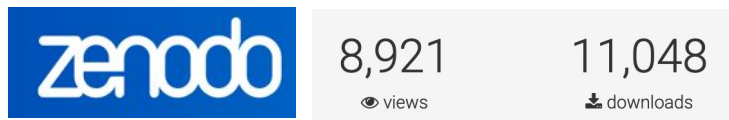
- Slack workspace
- PR / Issue on Github
- Community events

bit.ly/turingway

https://zenodo.org/record/3332807
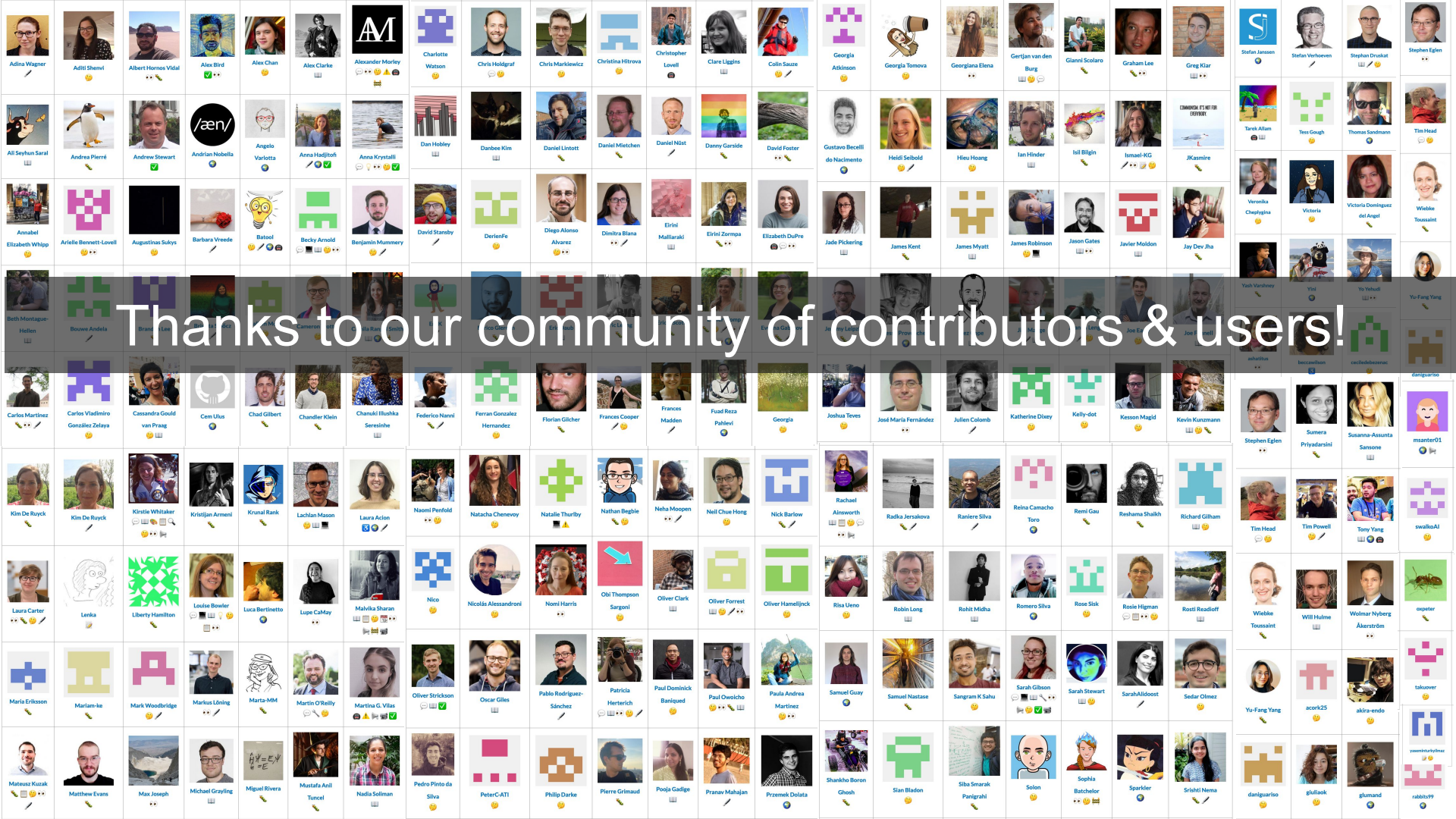
Thanks to our community of contributors & users!

Acknowledgements:

– Kirstie Whitaker, Malvika Sharan, *The Turing Way* community, friends & collaborators

– GitHub workshop based on Friendly GitHub Intro by Kirstie Whitaker & GitHub Collaborating Document by Malvika Sharan

Stay in Touch

– Book: the-turing-way.netlify.com

– Join Slack: https://tinyurl.com/jointuringwayslack

– Twitter: twitter.com/turingway

– Newsletter: tinyletter.com/TuringWay

– Mastodon: https://fosstodon.org/@turingway

– GitHub: github.com/alan-turing-institute/the-turing-way

– Original artwork by Scriberia: https://doi.org/10.5281/zenodo.3332807

Contact us: sbatchelor@turing.ac.uk, ekaroune@turing.ac.uk

Key Practices for Collaboration

Develop & share

Maintain & improve

Share resources

Review and update

Make it global

Share best practices