

# Git It: Introduction to Git and GitHub

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# What We'll Cover

- Introductions
- GCDI overview
- A conceptual intro to Git and GitHub
- What is version control?
- Related command line basics and vocab
- A basic Git/GitHub workflow
- Markdown basics
- Trying it out: Getting started by creating a new repository, making commits, & etc.
- Additional resources and where to go next

# Important Reminder:

If you wish to follow along with the applied portion of this workshop, please be sure you have completed the below, as needed.

- Create a free account on GitHub (and please be logged in/have login details handy!)
- Download Git for Mac or Windows
- Download a free text editor (i.e. Sublime or Visual Studio Code)

NOTE: It is also perfectly fine to just hang out, follow-along with what's on my screen, see if you are interested, and take any notes you need—these applied concepts can always be completed after, if preferred!

# Introductions

# What is GCDI?

Graduate Center Digital Initiatives offers support for digital scholarship, including:

- Workshops
- One-on-One Consultations
- Working Groups
- Events (including our upcoming CUNY DHI Lightning Talks!)
- Online Resources
- Grants and Fellowships

# Git *and*/vs GitHub

# What is Version Control?

**Why learn these tools?**



# Example Projects

# GitHub Vocab and Command Line Basics

# Some Basic GitHub Related Vocab

- Repository (or “repo”)
- Commit
- Push/Pull
- Clone
- Markdown
- README

# Some Additional GitHub Vocab

- Fork
- Branch
- Pull Request
- Merge Conflict
- Issue

**Let's See An Example Repo**

# Common Terminal and Git Commands

- `cd` (change directory)
- `clear` (clear what's visible in Terminal)
- `ls` (list contents of folder)
- `git init` (creates git directory)
- `git add` ("stages" your changes)
- `git commit -m 'Type Message'` (commits your changes with a message < 50 characters)
- `git status` (shows current status of your repo)
- `git help` (shows the help feature)
- `git diff` (shows changes)
- `git push origin main` (pushes local changes to the main branch of your GitHub repo)
- `pwd` (print working directory, i.e. the folder you are in currently)

# Common Terminal and Git Commands

- **cd (change directory)**
- clear (clear what's visible in Terminal)
- **ls (list contents of folder)**
- git init (creates git directory)
- **git add ("stages" your changes)**
- **git commit -m 'Type Message' (commits your changes with a message < 50 characters)**
- **git status (shows current status of your repo)**
- git help (shows the help feature)
- git diff (shows changes)
- **git push origin main (pushes local changes to the main branch of your GitHub repo)**
- pwd (print working directory, i.e. the folder you are in currently)

# A Basic Git/GitHub Workflow



# Basic Git/GitHub Process

1. code/write something
2. open the Terminal
3. cd to your directory
4. git status
5. git add <filename> (alternatively, to add everything you've changed do: git add --all)
6. git commit - m 'write message'
7. optional: do another git status (just to double check it)
8. git push origin main

**Let's See An Example Workflow**

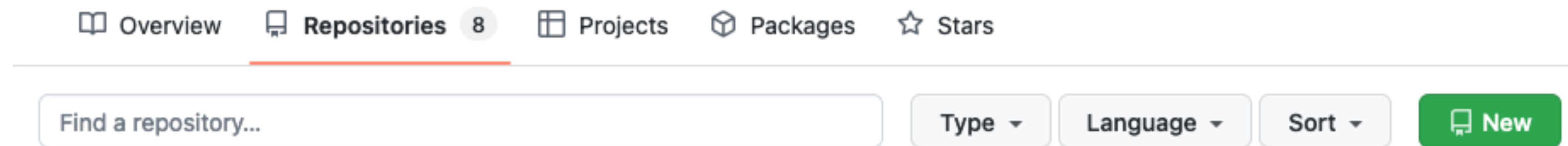
# Markdown Basics

**Any Qs?**

**Trying it Out!**

# Making a New GitHub Repository

# Making a New Repo in GitHub Pt 1



- In GitHub, navigate to Repositories (on the top bar)
- Click New

# Making a New Repo in GitHub Pt 2

- Fill in details (“Repository Name,” “Description,” and choose public vs private)
- Click “Add a README file” (optional but recommended)
- Click “Create repository”

## 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 \*

/ git-introduced ✓

Great repository names are short and memorable. Need inspiration? How about [fuzzy-octo-robot](#)?

Description (optional)

This is a repo for an introductory workshop on Git and Github

☒  **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 ▾

This will set  main as the default branch. Change the default name in your [settings](#).

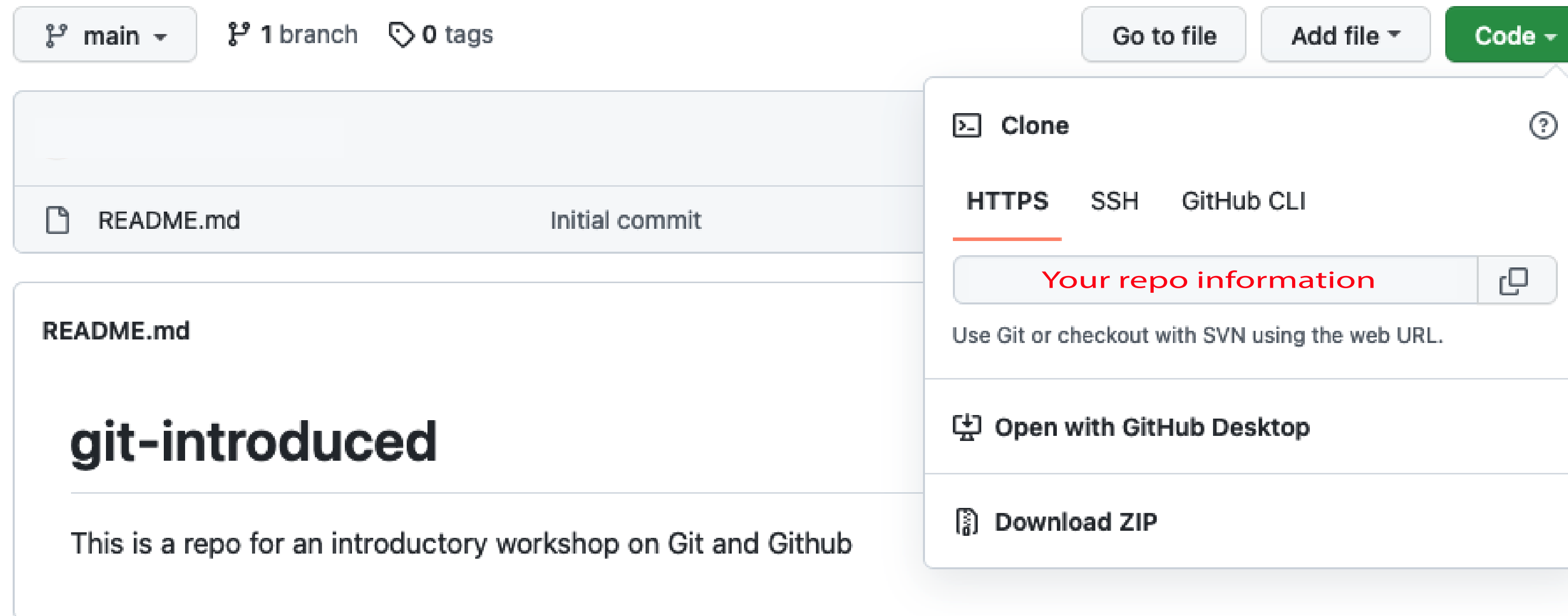
 You are creating a public repository in your personal account.

Create repository



# Making a New Repo in GitHub Pt 3

- In the Repo click Code and copy the url:



# Making a New Repo in GitHub Pt 4

- This last step is to make a local version of the repository you created on GitHub.
- In the Command Line (i.e. the Terminal) do the following:

**\$ cd <directory where you want the repo>**

FOR EXAMPLE: if you make a folder called Github in your Documents folder, and put it in there it would look something like: \$ cd /Users/username/Documents/Github

NOTE: on a Mac you can ctrl-click on a folder and then hold down option and you get a choice to copy the folder path, which makes this much easier! You can also drag and drop a folder into the Terminal to get the file path!

**\$ git clone <paste the url from Github>**

**\$ cd <name of folder, i.e. repository name>**

**\$ open .**

NOTE: The last two steps are optional—not a required part of making a repo. Alternatively, just navigate to, and open, the folder however is preferable.

**Friendly Reminder:  
Don't Actually Type the \$**

# Recommended Next Steps - Option 1

1. In the local repo: edit the README.md and/or create a new Markdown file
2. open the Terminal
3. cd to your directory
4. git status
5. git add <filename> (alternatively, to add everything you've changed do: git add --all)
6. git commit - m 'write message'
7. optional: do another git status
8. git push origin main
9. view your edits on GitHub!

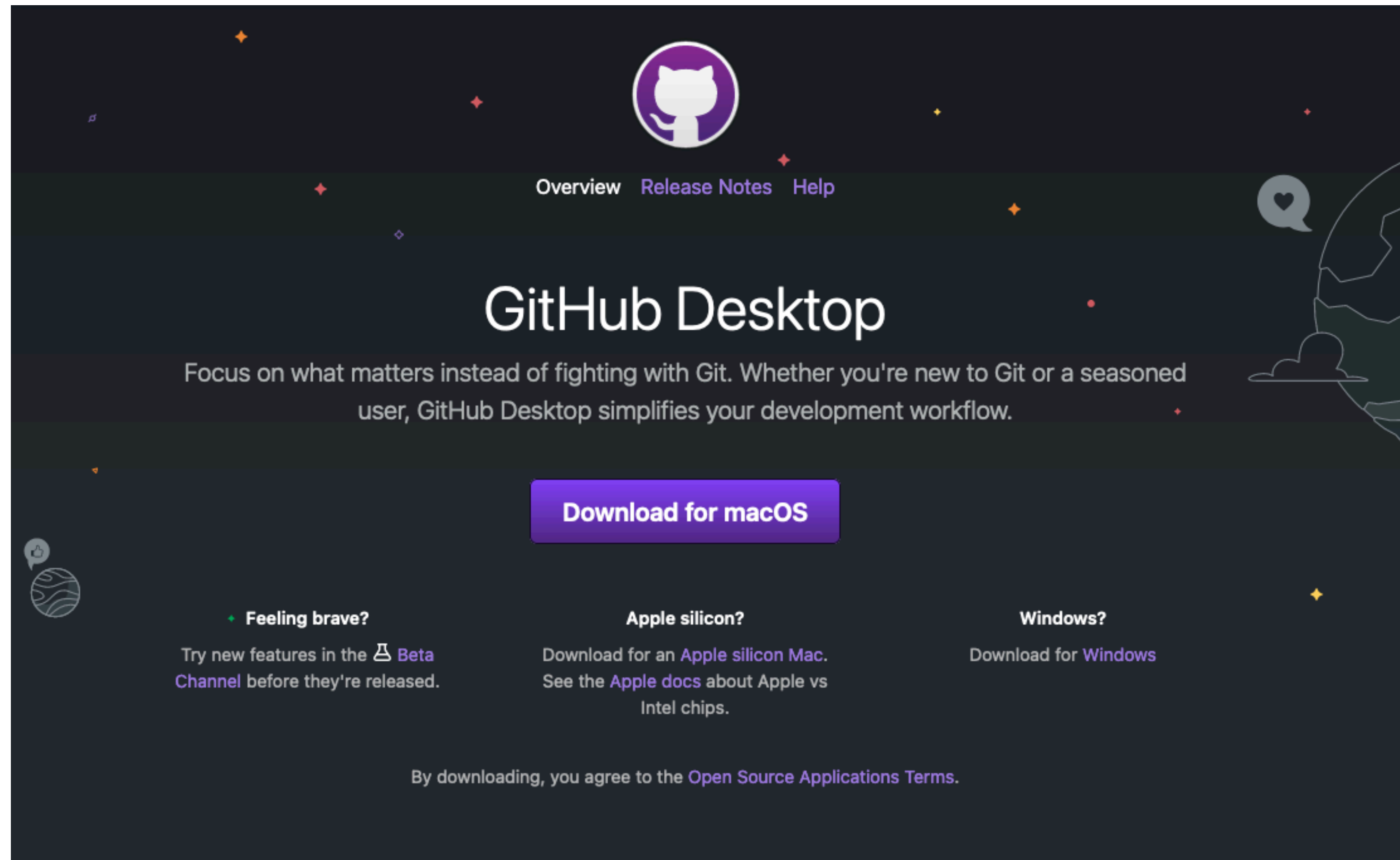
# Recommended Next Steps - Option 2

1. On GitHub: edit the README.md and/or create a new Markdown file
2. Commit the changes and add a commit message on Github
3. View your edits and the version differences GitHub!

**Any Qs?**

# Additional Resources

# Don't want to use the Command Line?



GitHub Desktop: <https://desktop.github.com/>



# Git, GitHub, and Markdown Guides

## Git/GitHub

- “Mini-Videos” provided by Git: <https://git-scm.com/videos>
- “Git Cheat Sheet” by GitHub: <https://github.github.com/training-kit/downloads/github-git-cheat-sheet.pdf>
- “Learning Resources” by GitHub: <https://docs.github.com/en/get-started/quickstart/git-and-github-learning-resources>
- “GitHub Glossary” by GitHub: <https://docs.github.com/en/get-started/quickstart/github-glossary>
- “Set up Git” by GitHub: <https://docs.github.com/en/get-started/quickstart/set-up-git>

## Markdown

- John Gruber, “Markdown” resource <https://daringfireball.net/projects/markdown/>
- Markdown Guide, “Cheat Sheet” <https://www.markdownguide.org/cheat-sheet/>

# Where to Go Next?

## With these tools:

- Download everything and try this exercise on your own if you haven't already!
- Check out the additional resources!
- Need more support about what you just learned? Request a follow-up individual consultation.

## At the Digital GC, generally:

- Check out related workshops and working groups we offer.
- Sign up for the GC's January Digital Research Institute/bootcamp.
- Check out events and workshops by the Mina Rees Library and TLC.

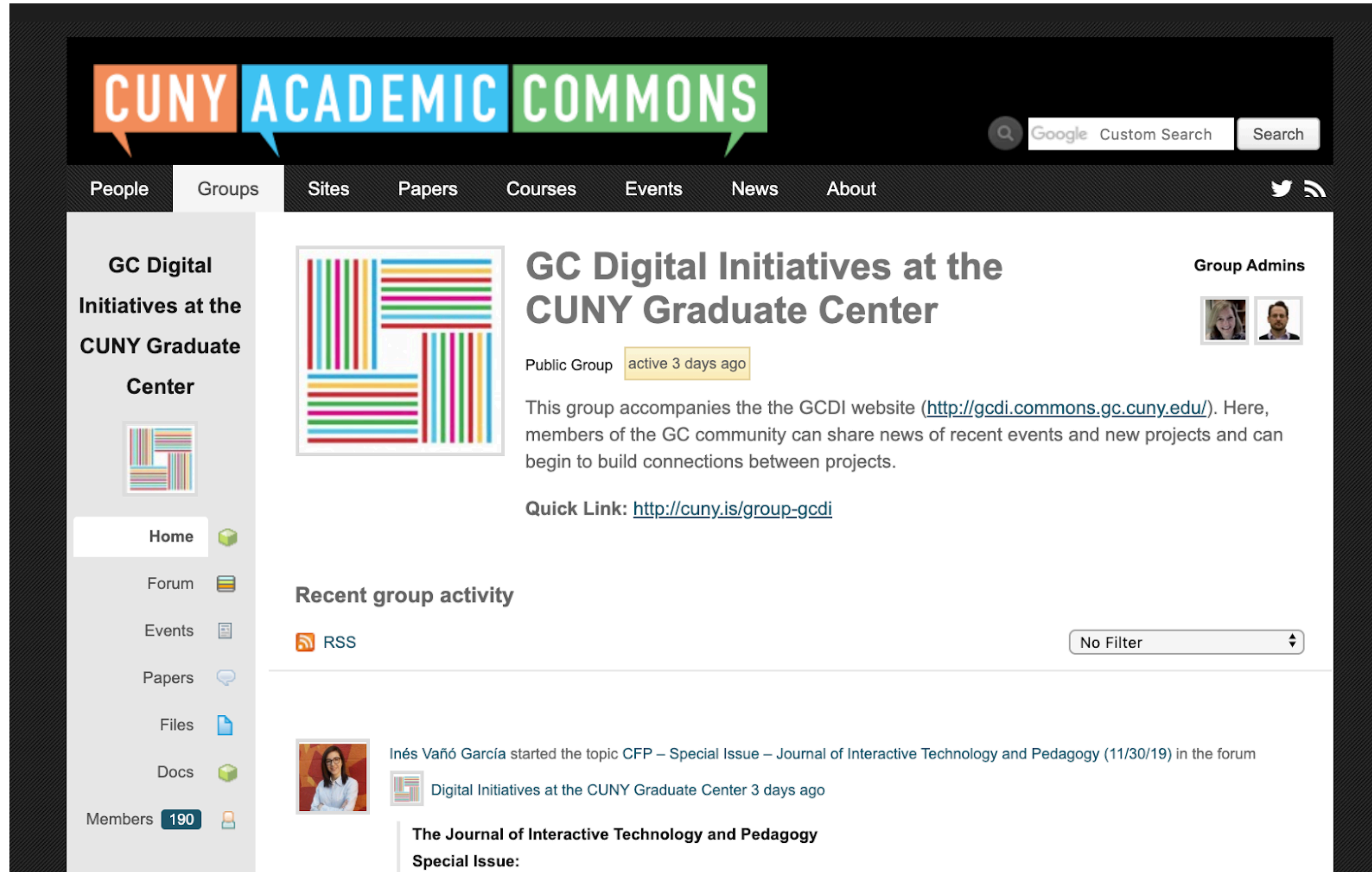
# How Can I Get Involved with GCDI?



Check out the GCDI Website and “Participate” Page: participate page: <https://gcdi.commonsgc.cuny.edu/participate/>



# How Can I Get Involved with GCDI?



The screenshot shows the CUNY Academic Commons interface. At the top, the logo "CUNY ACADEMIC COMMONS" is displayed in three colored boxes (orange, blue, green). To the right is a search bar with "Google Custom Search" and a "Search" button. Below the logo is a navigation menu with links: People, Groups, Sites, Papers, Courses, Events, News, and About. On the right side of the menu are social media icons for Twitter and RSS.

The main content area features a group titled "GC Digital Initiatives at the CUNY Graduate Center". The group's profile includes a colorful logo, the text "Public Group active 3 days ago", and a description: "This group accompanies the the GCDI website (<http://gcdi.commons.gc.cuny.edu/>). Here, members of the GC community can share news of recent events and new projects and can begin to build connections between projects." Below the description is a "Quick Link: <http://cuny.is/group-gcdi>". To the right of the description are two small profile pictures under the heading "Group Admins".

Below the group information is a section titled "Recent group activity". It includes an RSS feed icon and a "No Filter" dropdown menu. The activity list shows a post by "Inés Vañó García" who started the topic "CFP – Special Issue – Journal of Interactive Technology and Pedagogy (11/30/19) in the forum". Below this is a link to "Digital Initiatives at the CUNY Graduate Center 3 days ago". At the bottom of the activity list, the text "The Journal of Interactive Technology and Pedagogy Special Issue:" is visible.

On the left side of the page, there is a sidebar for the group. It includes the group's name, a small logo, and a list of links: Home, Forum, Events, Papers, Files, and Docs. At the bottom of the sidebar, it says "Members 190" with a small icon of a person.

Check us out on CUNY Academic Commons: <http://cuny.is/group-gcdi>

# Other Ways to Keep in Touch with GCDI



- Follow GCDI on Twitter: @cunygcdi
- Follow the GC Digital Fellows on Twitter: @digital\_fellows
- Follow the #digitalGC hashtag on Twitter
- Follow the GC Digital Fellows blog, Tagging the Tower
- Contact the fellows at [digitalfellows.commonsgc.cuny.edu/contact-us/](http://digitalfellows.commonsgc.cuny.edu/contact-us/)

**Please take a moment to share your feedback:**

**[cuny.is/GCDI-webevals](https://cuny.is/GCDI-webevals)**