## Topic: Git and GitHub

### Topic overview

This topic gives a brief definition of Git and GitHub and explains how they are related. It supplies further learning by means of videos and links to the official Git and GitHub websites, plus other CC-licenced sources. The novice section explains what some terms mean and gives some links to learning for getting started with GitHub.

### Seeking expertise:

Proficient and Advanced information on use of GitHub

### Novice

**Git** is a system that is widely used by developers who write code. But it may also be used by people who work with documents or people who design digital objects.

This is the workflow of all these people as they work with their digital files

Create – Save – Edit – Save again

Every time a file is edited a different version is re-saved. This is where Git comes in.

Git is a **version control system**. This means it records changes made to files as people work on a project. Every Git project is made up of many files, called a **repository.**

Git allows people to work together to develop code and documents or designs. It has other features that distinguish it from other version control systems

* Git is **open source**. This means anyone can use it (download it), modify it, and distribute it for free. All documentation is freely available online
* Git is a **distributed system**. This means it does not need a continuous network to work collaboratively. People can use Git on their local computer (if they have downloaded it)

For a beginning explanation of Git, see *Git basics #1*[video <https://youtu.be/8oRjP8yj2Wo> ]

To get started with Git you can begin by downloading Git to your own computer and then uploading your files (repositories) into GitHub. Or you can skip this and start directly with GitHub (see below) [check is this right]

**GitHub** is a cloud-based platform where people can work on, share, and manage projects using Git. GitHub started mainly for sharing code for software development but it can also be used (as we have here) for developing long complex documents like training manuals.

GitHub makes it easy for people to collaborate on projects by

* Providing a platform to work together at the same time
* Allow for review of contributions from different people
* Resolving conflicts between contributions

GitHub is owned by Microsoft (they bought it in 2018).

To work with others on GitHub you first need to sign up and then make a repository.

1. Sign up for GitHub[link: [https://docs.GitHub.com/en/get-started/signing-up-for-GitHub/signing-up-for-a-new-GitHub-account](https://docs.github.com/en/get-started/signing-up-for-github/signing-up-for-a-new-github-account)] (you don’t need to download Git to your computer) [check]
2. Make a repository [link to <https://app.gitbook.com/@aarnet/s/digital-skills-gitbook-1/~/drafts/-Mi-uACCRVJ6OgCwrhcp/contributing-to-the-digital-skills-gitbook>]

Once you have signed up and made your first repository (repo) you can see other repos, re-use code, or suggest changes to other people’s repos, without breaking anything. More on that in the next section!

Terminology

* Version control system
* Repository
* Open-source
* Distributed system