Sunoikisis Digital Classics Fall 2020

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Open Source Software, Command Line and Git

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Open Licenses for Digital Research

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Slides online at http://tinyurl.com/OSandOA

- Open Source Software
- Open Access Publication
- Open Licenses
  - Creative Commons
- Open Scholarship
  - Enlightenment scientific method

Open Source Software

- **Open Source model**
  - "free software"
    - "free as in speech, not as in beer"
  - community goods
  - collaboration
  - software management model
  - private industry involvement
- **Flagship Open Source Software**
  - Unix, GNU, Linux, (Android, Google Chrome)
  - Mozilla, Firefox, Thunderbird
  - OpenOffice / LibreOffice

The GNU GPL

- When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.
- To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.
- For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

http://www.gnu.org/copyleft/gpl.html

Open Source Licenses

- Many and various flavours
- All allow re-use and redistribution
- Some allow commercial use, some not
- Some allow non-OS use, some not
- Most allow modification

Open Source ≠ Public Domain

- Works within copyright law
  - have to claim copyright to use OS licence

- Enables reuse copyright would deny
  - shelf-life of software shorter than copyright
  - collaborators may never meet or communicate
  - may have unrelated needs
  - conflicts, may fork code
  - most OSS not community led

Open Access Publication

- "Free as in beer" + guarantees
- May be fully copyright restricted
  - e.g. course materials
  - web comics, blogs
  - databases
  - journals, news
- Business model may depend on massive access (*cf.* free newspapers & advertising)

Academic Value of OA

- Open Access Publication is free for all
  - less well-funded universities
  - non-academics
  - less wealthy countries
- Public good (education publicly funded)
- Enables citation and reference checking
- Citation indexes show dominance of online publications

Open Licensing

- Open Licenses waive <u>some</u> copyright protections
  - usually allowing redistribution
  - usually requiring attribution
  - may or may not allow commercial use
  - may or may not allow non-open use
  - may or may not allow transformative use
- ≠ public domain

Creative Commons

- *Some* **Rights Reserved**
- Creative Commons defines the spectrum of possibilities between full copyright and the public domain. From <u>all rights reserved</u> to <u>no rights reserved</u>. Our licenses help you keep your copyright while allowing certain uses of your work — **a "some rights reserved" copyright**.

- **CC Licenses work alongside copyright**
- Creative Commons licenses are not an alternative to copyright. They work alongside copyright, so you can modify your copyright terms to best suit your needs. We've collaborated with intellectual property experts all around the world to ensure that our licenses work globally. **http://www.creativecommons.org/**

CC Licenses

- **CC-BY : Attribution**
  - Vanilla
  - You let others copy, distribute, display, and perform your copyrighted work — and derivative works based upon it — but only if they give credit the way you request.
- **SA : Share Alike**
  - You allow others to distribute derivative works only under a license identical to the license that governs your work.
- **NC : Non-Commercial**
  - You let others copy, distribute, display, and perform your work — and derivative works based upon it — but for non-commercial purposes only.
- **ND : No Derivative Works**
  - You let others copy, distribute, display, and perform only verbatim copies of your work, not derivative works based upon it.

Use Open Licenses if...

- You want people to re-use and re-mix
  - Allow testing / building on science
- Obscurity is a bigger enemy than piracy
  - independent bands, self-published authors
- You want others to improve your work
  - cf. Wikipedia
- You believe your work is a public good
  - Academic work sits here

Open Scholarship

- *aka* The Enlightenment University
- First Free Universities in C18 Germany
  - "free as in speech"
  - independent from Church and goverment
- Established need for rational argument
  - No *ex cathedra* pronouncements
  - Reproducible evidence and method
  - Citation of previous scholarship

Open Scholarship: Method

- Scholar A does research
  - 20 years later, writes book, includes citations
  - book published
- 30 years later, Scholar B reads book
  - follows citations
  - reproduces experimental methodology
  - disagrees with results
  - new research
  - 20 years later, writes new book
  - includes Scholar A among citations
- This is collaboration
  - even if they never meet

Scholarly Method

- Experimental Physics
  - cite earlier theory and experiments
  - credit all collaborators
  - document experimental method reproducibly
- Theoretical Literary Criticism
  - cite earlier critics (to discredit)
  - credit all proponents of your theory
  - document argumentation painstakingly
  - footnote everything

Scholarly Method cont'd

- Classical Philologist
  - *apparatus criticus* cites scholarly differences
  - bibliography credits editorial restorations
  - historical commentary argues for current interpretation
  - publish photographs, facsimiles, comparanda
- republish regularly

Scholarship is OSS

- asynchronous collaboration
- re-use within certain parameters
- attribution required
- "source code" distributed with "binaries"
  - reproducible experimental method
- academic protocol not legal license

Digital Scholarship

- Digital research usefully published online
  - non-linear route through materials
  - multimedia / hypertext / search
- Scholarly output Open Access
  - public good
  - problem of paying / subscribing online
- Underlying data and code
  - = source material and methodology
  - also needs to be Open Source
    - remixing is scholarly imperative

Remixing is a Scholarly Imperative

- Test the results of your SQL query on underlying data
- Run your digital source texts through a different text-mining tool
- Run your search and indexing scripts over different online data
- Code is part of the scholarly output
- Not publishing code as OSS would equivalent to lacking bibliography

Further reading

Bodard, G. and Garcés, J. 2009. "Open Source Critical Editions: A Rationale." Deegan & Sutherland, *Text Editing, Print and the Digital World* (Ashgate Press), 83-98. Available: <https://blog.stoa.org/files/2010/09/Bodard-Garces_2009_Open-source-digital-editions.pdf>

Git

Overview

- **Git clone** <url> [location]

  > git clone https://github.com/SunoikisisDC/SunoikisisDC-2019-2020.git new_folder

- Git **pull**
- Git **add** / git rm
  - (or commit -a)
- Git **commit**
  - -m "summarise what you've done"
- Git **push**

Project management

- Work in root
  - Commit but don't push until working
- Make a **branch**
  - Merge when complete
- **Fork** to a new repository
  - Possible pull request when complete
  - Some forks never feed back
- In all cases…
  - may need to resolve conflict

https://github.com/

Command Line

WINDOWS COMMAND

run ---> cmd

- cd   cd Desktop\Test
- dir
- del
- copy
- move
- rename
- mkdir
- rmdir
- cd
- help

OSX TERMINAL / UNIX

Launchpad ---> Terminal

- cd   cd Desktop/Test
- ls
- rm
- cp
- mv
- ~~rename~~: mv
- mkdir
- rmdir
- pwd
- man