

Licenses; human subjects data

Tools for Reproducible Research

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Course web: kbroman.org/Tools4RR

Course summary

- ▶ Make everything you do script-based
 - code + data \rightarrow product
- ▶ Use version control (git and GitHub/Bitbucket)
- ▶ Take your time; organize
- ▶ Write clear code; make R packages
- ▶ Write unit tests
- ▶ Capture exploratory data analysis
 - what you did, saw, and thought (and why)
- ▶ KnitR + Markdown for reports
- ▶ KnitR + \LaTeX for papers, talks, and posters
- ▶ Use licenses to make reusability clear

Intellectual property

- ▶ Manuscripts/journal articles
- ▶ Books
- ▶ Software
- ▶ Data sets
- ▶ Ideas, inventions
- ▶ Lab/research notebooks
- ▶ Instructional materials
- ▶ Web sites

IP protection

- ▶ Copyright
- ▶ Patents
- ▶ Trademarks, Trade "dress"
- ▶ Trade secrets

Copyright

- ▶ Copyright is automatic
- ▶ In "works for hire," the employer holds the copyright
- ▶ In academics, it is customary that researchers control copyright

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- ▶ At UW-Madison:

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- ▶ Can't be a substantial portion of the work
- ▶ Can't affect the value/market of the original work

Breaking copyright \longleftrightarrow plagiarism

Breaking copyright \longleftrightarrow plagiarism

These are totally different things.

Software licenses

- ▶ Critical if you **want** your code to be reused.
- ▶ Also important to protect yourself from lawsuits.
- ▶ I choose between the MIT license and the GPL.
- ▶ **Don't** use Creative Commons licenses for software!

Pick a license, any license

– Jeff Atwood

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GPL-3

- ▶ Use, modify, distribute, ...
- ▶ Don't hold the author liable.
- ▶ Distributions must include the source code.
- ▶ Software incorporating the work **must also be under GPL-3.**

For GPL-3, include this

```
<line with the program's name and a brief idea of what it does.>  
Copyright (C) <year>  <name of author>
```

```
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published by the Free Software Foundation, either version 3 of  
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```

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CC licenses: issues to consider

- ▶ BY may be an unnecessary hassle.
- ▶ CC-BY on a paper would allow a company to include it in a book
 - but maybe you don't care
- ▶ ND is **really** restrictive
 - all or none
 - no modifications at all
- ▶ NC means people in a company can't use it at all
 - might not be usable within a course

Data copyright

- ▶ Individual data points are generally considered **facts**
 - Can't be copyrighted
- ▶ Compilations of data can be copyrighted
 - Involves some creativity, so an "original work of authorship"
- ▶ But someone can just extract and reformat the data
- ▶ Can assign a license to the data files to prevent extraction and redistribution
- ▶ See bitlaw.com/copyright/database.html

Keep data open

- ▶ Cite the source; cite the relevant papers
- ▶ Talk to the originator of the data
 - Even if redistribution is legal, don't piss them off.
- ▶ For your own data, use **CC0** (public domain)
- ▶ If you want more control, talk to a lawyer

Human subjects research

- ▶ Avoid human subjects research

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(just kidding!)

Human subjects research

- ▶ If there are humans involved, they're human subjects
 - e.g., surveys
- ▶ Human subjects research must be reviewed by an Institutional Review Board (IRB)
- ▶ Not everything is **research**
 - e.g., data used solely in a course
- ▶ Most things are research
 - If you publish a paper about it, it's research
- ▶ Anonymized data may be **exempt**
 - But the IRB wants to make that determination

HIPAA

- ▶ HIPAA = Health Insurance Portability and Accountability Act of 1996
- ▶ Special rules about medical data with **any** identifying information
 - Private
 - Secure
- ▶ Full zip code may be considered identifying information.
- ▶ Dates of test results are considered identifying information.

Summary

- ▶ Pick a license, any license
- ▶ Use MIT or GPL for software
- ▶ Use CC0 for data
- ▶ Cite sources of software and data
- ▶ Talk to the source of data
- ▶ Be careful with human data
 - If you're unsure, ask for help