### Licenses; human subjects data

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### Course summary

- Make everything you do script-based
  - code + data → product
- Use version control (git and GitHub/Bitbucket)
- ► Take your time; organize
- ▶ Write clear code; write functions; 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 and talks and posters
- ▶ Use licenses to make reusability clear.

Karl -- this is very interesting, however you used an old version of the data (n=143 rather than n=226).

I'm really sorry you did all that work on the incomplete dataset.

Bruce

# 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

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- ► In academics, it is customary that researchers control copyright
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- ► To display the work publicly

#### Fair use

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- ► For non-commercial or nonprofit educational purposes
- Can't be a substantial portion of the work
- Can't affect the value/market of the original work

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

#### MIT license

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- ► Software incorporating the work must also be under GPL-3.

### For GPL-3, include this

with the program's name and a brief idea of what it does.>
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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

# Human subjects research

Avoid human subjects research (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