How to set up your computer as a statistician

09/19/2023

11:45-12:45

ARB 532A/B

Speaker: Jeff Goldsmith

Student Panel: Elly Kipkogei, Safiya Sirota, Zining Qi, Tvisha Devavarapu

Moderator: Charly Fowler

# Welcome

**Presentation by Jeff Goldsmith**

*2023 notes:*

* **Latex**
  + MacTeX (<http://tug.org/mactex/> )
    - LaTeX distribution for Mac users
    - *We will have a LaTeX session later in the semester*
  + LaTeX (<https://www.latex-project.org/get/#tex-distributions>)
  + Mathpix (<https://mathpix.com/>)
    - Formula and text recognition from screenshot
    - easy exporting to LaTeX, MS Word, Markdown, HTML, and PDF.
  + LaTeXiT
    - small utility that allows you to quickly typeset LaTeX equations ([https://www.chachatelier.fr/latexit/](https://www.chachatelier.fr/latexit/)))
* **R/RStudio**
* **Slack** (<https://slack.com/>)
* **Alfred** (<https://www.alfredapp.com/>)
  + **App launcher** 
    - Search/launch application
    - Spotlight indexes everything on your computer, Alfred looks through file and directory *names*
* **Organize your folders and files**
  + I.e. organize folders by each *year*
  + i.e. organize project folder by *year\_month\_collaborator\_project*
  + i.e. have analysis, data, results, and drafts directories in every project folder
* **Make use of workspace/desktop space**
  + **Magnet** (<https://magnet.crowdcafe.com/>)
    - Reshapes windows on Mac automatically
    - Easier to split screen
* **Update software periodically**
* **Be consistent in organizing things**
  + Deciding on a system (and sticking to it) early on will really help
  + Use the same project infrastructure every time
* **Get rid of stuff you don’t use to minimize the amount of time spent looking for things.**

# Panel Introduction (name, program, PC vs Mac, tablet yes/no)

* Elly Kipkogei, 3rd year PhD, PC user, physical notebook for note taking
* Safiya Sirota, 3rd year PhD, PC/Mac user, iPad for note taking
* Zining Qi, 2nd year MS, Mac user,
* Tvisha Devavarapu, 2nd year,MS, Mac user, iPad for note taking

# What are some essential softwares to download?

* **iCalendar**
  + Built-in app on Apple devices, Sync among Mac, iPhone, iPad
  + Useful for planning days, setting reminders
* **Notability** ([h ttps://apps.apple.com/us/app/notability/id360593530](https://apps.apple.com/us/app/notability/id360593530))
  + Not free but worth it if you use for class
  + Can copy handwritten math into LaTeX code with premium version
* **Overleaf** (<https://www.overleaf.com/>)
  + Web-based LaTeX editor
  + See output as you type
  + Real-time collaboration, version control
  + Good for writing HWs and easy to share through link
* **Rainbow Paratheses in R** 
  + Global Options -> code -> Display -> Rainbow paratheses
* **GoodNotes** ([https://www.goodnotes.com/)](https://www.goodnotes.com/)
  + Alternatives to Notability
* Notion
* Outlook app on laptop
* **Google Calendar**
  + Alternatives to iCalendar
  + Easy to organize between PC and iPad/iPhone
  + You can set assignment dues as all-day events
  + Color code events can be helpful
* **Google doc/sheet**
  + Notetaking for PC and Apple users
* **Git/GitHub** (<https://github.com/>)
  + Great for collaborative projects
  + Version control
* **SAS** studio (Columbia student discount via IT)
* **Microsoft OneNote** ([https://www.onenote.com/)](https://www.onenote.com/)
* **Local Latex app**
  + Write and click Run, quicker and simpler than Overleaf
* **Mathpix** (<https://mathpix.com/>)
  + Can screenshot math on a pdf document, transforms it to LaTeX code
  + Limit on Mathpix for how many pictures you can take
  + Can get around limit by creating a new account
* **Stack Exchange** (<https://stackexchange.com/>)
  + Network of question-and-answer websites on topics in diverse fields
  + Online Free question and answer interface

# How do you take notes? If by iPad/tablet, can you speak about useful apps for taking notes, annotating a textbook, etc.?

* Notability/Goodnote (mentioned above)
  + Automatically does text conversion, can search for a word in the app
  + Can use it as a notebook
  + Can download and annotate textbooks
  + Can split screen
* **CollaNote**

A screenshot of a phone

Description automatically generated

* For non-iPad users:
  + Can keep things organized in Google Drive for classes
  + Print out slides and annotate them during class, keep organized in binder
  + Can use pen and paper and then write up as a LaTeX document later

# What advice do you have for organizing files/folders on your computer?

* Focus on consistency and organization for whichever system you use
* Try not to procrastinate with organization because it gets difficult as time goes on
* Standardize directories across courses or projects
* Starting a filename with YYYYMMDD makes chronological sorting easier
* Input assignments and due dates into a Google Sheet to prioritize

# How do you keep track of references when writing a paper?

* Zotero (<https://www.zotero.org/>)
  + Useful for keeping track or references and generating citations in Word
  + Can have a shared reference library for collaboration
* Google Scholar (<https://scholar.google.com/>)
  + Create an account
  + Allows you to favorite documents and return to them later
  + Can use even when you are not connected to Columbia’s network
* Dropbox ([https://www.dropbox.com/)](https://www.dropbox.com/)
  + Store refernce papers
* Google Drive (<https://www.google.com/drive/>)
  + Syncs well between devices and different operating systems

# How do you back up files/documents?

# One Drive

# Google Drive

# iCloud