Learning Journal for FOAR705

Week 1:

Objective: Restore a file from a 6 month old back up
Action: Search on Google Drive for “Knowledge of Self and Others” the Mind and World essay I wrote over a year ago
Error: None
Result: Success, document found and opened

Objective: Look at project management tools and form opinions
Action: Observe ‘project management’ I am currently doing for my wedding on shareable google sheets. Although the way it is formatted is useful for me to understand, it can be hard to communicate what I mean to other people. I briefly looked into Trello, Jira and Asana. The visual nature of Asana seems much clearer as a form of communication.
Error: None
Result: Asana definitely seems like a more useful project management tool than what I currently use.

Week 2:

Overall Objective: Figure out what LaTex is and how to use it.

Objective: Use LaTex
Action:

1. Create an overleaf Account
2. Create a “Test LaTex” file

Error: None
Result: Success

Objective: Play around with LaTex
Action:

1. Change “\author” to “Georgia Rutherford”.
2. Delete \maketitle to see what happens

Error: Need to hit “recompile” for the example document to update.
Result: Apparently deleting \maketitle deletes the text that was above it in the document. I am unsure why.

Objective: See what happens if I put text above the \begin document
Action: Type \section{Hello World} above \begin document
Error: Using “/” instead of “\” makes it plain text instead of a section.
Using “()” instead of “{}” does not work (not entirely sure why but it looked weird).

Result: It made a page with that section before the other pages. This included the title even though the text for the title was above the “\section{Hello World}. This must be because of the “\maketitle” command

Objective: Make paragraphs
Action:

1. Press enter twice to change line
2. Write “\paragraph{}” on a new line and then continue text on the line below to add a larger break.

Error: Need to do two breaks to change the line of the text (otherwise the text is written next to the other text).
Doing three breaks doesn’t change the line further (still just turns up underneath).
Writing “\paragraph” changes the text inside the “{}” into bold.
I don’t like the indentations on the document, not sure how to change
Result: Not entirely sure if above is the proper way to make paragraphs, but it seems to work. Need to research further.

Overall Result: I have a much better idea on how to use LaTex and the process has been much more simple than I anticipated. However, there is still a lot I’m confused about. For example, I am not extremely fond of the formatting and would like to learn more about how to change that. At this stage I probably know enough to be able to complete the first assignment.

Overall Objective: Do Scoping exercise in LaTex

Objective: Create a LaTex document on overleaf
Actions:

1. Open a blank text
2. Name it Scoping Exercise
3. Change “\author” from my email address to “Georgia Rutherford”
4. Recompile

Error: none
Result: Successfully made document

Objective: Create a list of headings and subheadings on my document
Actions:

1. Write “\section{}” for A Day in the Life, Pains, and Gains
2. Write “\subsection{}” for Pains I Encounter, Pain Relievers, Gains I Would Like, and Gain Creators

3. Recompile

Error: realised after that I can use the “rich text” to put headings and subheadings in even quicker.
Result: Headings and subheadings created

Objective: Enter relevant information under each heading
Action: Entered in text
Error: I realised partway through that I can use “Rich Text” to very easily add bullet points and some formatting.
Tried to put in quotation marks and one of them came out backwards. Need to use ‘ ’ and ` ` keys instead of “” in LaTeX
Result: Finished Exercise

Overall Result: Finished Scoping Exercise

Overall Objective: Complete Data Carpentry exercises

Objective: Identify what is wrong with this spreadsheet/the steps you would need to take to clean up the two tabs and put them together
Things that are wrong:

- Graph labeled Plots uses yes, y, no and N
- Uses a key that a computer won’t be able to translate (yellow in first tab, asterisk in second)
- Some of the cells are left blank
- Page 2 title is not in the graph
- Asterisk used twice in the second tab (could be confusing as to which they refer to)
- Second tab has a mix of numbers and words in graph (1, yes, no, yes)
- Spelling errors (errth) and different ways of spelling (Mabati_sloping vs mabatisloping)
- Data errors (-99 rooms)
- Livestock owned and numbers should be separate

Steps needed to take to put them together:

- You would need to change so they are using all the same values (example: all yes/no or all numbers for livestock)
- You would need to correct spelling so there are no errors and everything matches
- Fix data errors
- Make changes on a separate document

Objective: make a list of some of the types of metadata that should be recorded about this dataset

- What counts as an item for items_owned
- Who was interviewed and how they were chosen
- What does no_meals mean (number of meals? Per day?)
- Wall type on what? (House?)
- What does no_members mean? (number of members? of household?)
- Location of villages
- Which year were the months_lack_food in?

Overall Results: I have read to the end of formatting problems. I was surprised to see that what I thought was a data error, the use of numbers like -99, was actually meant to convey a null value. This highlighted to me the issue of being incredibly clear with your data. I was also interested to read about how merging cells can be problematic for the computer seeing associations between data. Out of all the problems listed, merging cells is probably the one I would be most likely to commit.

Overall Objective: Submit LaTex Scoping Exercise

Objective: Fix an error I just found in the LaTex code “overfull \hbox”
Action:

1. Google what “overfull \hbox” means and how to fix it
2. Add \linebreak to move the word “Throughout” so it isn’t split in two

Error: Initially tried to just move throughout to the line below but it caused an indentation. Using \linebreak moves the word down without causing the indentation.
Result: The error was just highlighting that the word “Throughout” was being split in two. This didn’t really bother me but it was cool to learn how I can add a line break without having the indentation. Having tested it further, I can add \linebreak twice and start a new paragraph without the indentation.
However, having thought about it a bit more I realise that \linebreak will add the line break there even if my formatting changes and there is no longer a need for the line break. I am unsure as to how to fix the issue of “Throughout” being split without causing this second issue.
At this stage I’m going to leave “Throughout” as it is and look more into how to fix this “overfull \hbox” issue for the future.

Objective: Download .tex file
Action:

1. Download PDF
2. Google how to download .tex file from overleaf
3. Download .tex file
4. Unzip file

Error: I was lost for a little bit about where to find the button to download the file as .tex since it wasn’t near the PDF download button. Turns out it was in the menu bar under ‘Source’

Result: Both PDF and .tex files downloaded

Objective: Submit Exercises
Action:

1. Rename from “main” to “GeorgiaRutherford-ScopingExercise”
2. Submit .tex on cloudstor
3. Submit PDF on ilearn

Result: Submitted

Overall Result: Submitted LaTex Scoping exercise

Overall Objective: Data Problems in philosophy

One problem with the use of data in my field is that sometimes data is ignored. It is common among philosophers writing on the topic of work to write about 'the end of work' in society as though it is inevitable. However, there are statistics that show employment is actually very stable at the moment. This issue is discussed in 'The Return of Work in Critical Theory' on page 36 by Christophe Dejours, Jean-Philippe Deranty, Emmanuel Renault and Nicholas Smith.

The second issue of data use in my field also comes from the topic of work. A large amount of data exists around people's experiences of work and some of this data is contradictory or can be interpreted in different ways. This issue is discussed by Marie Jahoda in 'Work, Employment, and Unemployment'.

Overall Result: success

Week 3

Overall Objective: Complete Data Carpentry activities for this week
Objective: Extract the components of the date to new columns
Action:

1. Title columns Day, Month, Year
2. In B2 write Day=($A2)
3. Drag from the corner of B2 to the bottom of the column
4. In C2 write Month=($A2)
5. Drag from the corner of C2 to the bottom of the column
6. In D2 write Day=($A2)
7. Drag from the corner of D2 to the bottom of the column

Result: Success. I was previously unaware of the Day=, Month=, and Year= functions.
Objective: add another data point in the interview_date column by typing 17/11
Action:

1. Write 17/11
2. Continue the day/month/year columns to include the new entry

Result: Success, A16 now displays 17/11/2019. I was also previously unaware excel auto-completed dates like this.

Objective: Apply a new data validation rule to one of the other numeric columns
Action

1. Click on column G (rooms)
2. Click Data
3. Click Data Validation
4. Click allow - whole number
5. Restrict to between 1-30
6. Change input message. Title: Invalid number. Input message: Must be whole number between 1-30

Result: Success

Objective: Apply a new data validation rule to one of the other categorical columns
Action:

1. Choose column B: Village
2. Click Data
3. Click data validation
4. Click allow - list
5. In source type God, Rauca, Chirodzo
6. Change input message. Title: Invalid Village. Input message: Only God, Rauca and Chirodzo accepted

Objective: Export data
Action:

1. Click File
2. Click save as
3. Change format to .csv

Error: For the SAFI_dates file an error popped up saying I couldn't save both tabs. This was okay because I only used one of the tabs. Still good to note for future reference.
Error: when I reopen the document it doesn't appear to have saved the data validation I did, so i will try again.
Result: I think You need to save the document as an .xlsx file to save data validation, and then as .csv so you have access to the data if excel stops supporting the .xlsx files

Objective: Export the csv. View it in a text editor like Atom.io, Sublime Text, or notepad++ Think about the benefits of an always-readable and not tied to a subscription or specific program data format.
Action: I don't have those programs downloaded on my computer, but I opened the .csv in just normal notepad and it was still recognisable. The .xlsx file, on the other hand, was complete gibberish. Having a file not ties to any specific program would mean that you can access it if you

lose access to the program used, and that it is shareable with everyone no matter what program they use.

Overall Result: Data Carpentry Task Done

Overall Objective: Complete Scoping II: Computational Analysis in LaTex

Objective: Create document
Action:

1. Open Overleaf
2. Click new project
3. Click blank project
4. Title: Scoping II: Computational Analysis

Error: None
Result: objective complete

Objective: Create sections for Decomposition, Pattern Recognition, Algorithm Design
Action:

1. Write \section{...} for each topic
2. Click Recompile

Error: two of the topic headings did not appear as sections because without thinking I had capitalised the S is \Section
Solution: uncapitalise the S
Result: Success

Objective: Type information into each section
Action:

1. Add subsections for note organisation and referencing in each section
2. Write information

Error: None
Result: Success

Overall result: Scoping II complete

Overall Objective: Check out Bibtex

Objective: Create a bibtex file
Action:

1. Go to overleaf
2. Create a new project to test things in
3. Create a new .bib file

Error: None
Result: Success

Objective: Cite something
Action:

1. Type in test.bib: @book{carruthers2011opacity,
   title={The opacity of mind: An integrative theory of self-knowledge},
   author={Carruthers, Peter},
   year={2011},
   publisher={OUP Oxford}
   }

2. Type \cite{carruthers2011opacity} in main.tex file

Error: received error “You have cited something which is not included in your bibliography.”
Solution: I had to specify a .bib file and which bibliography style to use in the .tex file.
Action:

1. Type \bibliographystyle{plain}
2. Type \bibliography{test}

Result: Success. The bibliography appeared at the end of the document and the citation is in the main body of the text

Objective: Cite the page number as well
Action

1. Change \cite{carruthers2011opacity} to \cite[p.~31]{carruthers2011opacity}

Error: None
Result: Success. Citation now says [1, p. 31]

Objective: Change citation to a format more like my usual style.
Action:

1. Download an APA style bibtex style from https://www.reed.edu/cis/help/LaTeX/bibtexstyles.html
2. Upload file to project
3. Delete \usepackage[utf8]{inputenc}
4. Write \usepackage[natbib]
5. Change \bibliographystyle{plain} to \bibliographystyle{apa-good}

Error: Literally everything broke and it couldn’t compile. I clearly missed some steps. I’m going to take a break and come back tomorrow.

Objective: Start new bibtex test
Action

1. Open new project
2. Create .bib file
3. Put carruthers reference info into .bib file
4. Type \bibliographystyle{plain} in .tex file
5. Type \bibliography{test} in .tex file

6. Type \cite{carruthers2011opacity}

Error: Reference not found
Solution: Read my learning journal. Be confused because I did everything the same as last time. Realise that the .bib file is named Test.bib this time and that it is cap sensitive. Change to \bibliography{Test}
Result: Success

Objective: Change to APA style reference
Action:

1. Google how to use APA bibtex, click on http://homepage.stat.uiowa.edu/~rlenth/ALPHA/apa-tutorial.pdf
2. Write \usepackage[natbib]
3. Don't delete \usepackage[utf8]{inputenc} this time
4. Change \bibliographystyle{plain} to \bibliographystyle{apalike}

Result: Success in changing the format of the reference. Although it came up as Carruthers (2011) and I would prefer (Carruthers, 2011).

Overall Result: There is definitely some promise here and I think I will find bibtex very useful in the future, but I am still interested in the digitising handwritten notes idea. So for now I am going to leave this and look further into character recognition.

Overall Objective: Check out existing written to digitised text software
Objective: Download something to test
Action:

1. Google 'open source character recognition'
2. Find out about Google Tesseract from https://opensource.com/life/15/9/open-source-extract-text-images "The technology extracts text from images, scans of printed text, and even handwriting"
3. Click on https://opensource.google.com/projects/tesseract
4. Click on https://github.com/tesseract-ocr/tesseract
5. Download tesseract file
6. Unzip tesseract file

Error: Lots of files within the tesseract file. Will need to google how to actually use this software.
Objective: Download Tesseract and use it

Action:

1. Google how to install https://www.bl.uk/britishlibrary/~/media/bl/global/early%20indian%20printed%20books/training%20resources/installing%20and%20using%20tesseract%20ocr.pdf
2. Go to https://github.com/tesseract-ocr/tesseract/wiki
3. Then go to https://github.com/UB-Mannheim/tesseract/wiki
4. Download 64bit installer
5. Go to https://github.com/tesseract-ocr/tesseract/releases

6. Download zip of source code
7. Unzip Source code
8. Rename JPG file to test1
9. Put JPG file into tesseract-4.00.00alpha folder

Error: Can't find the folder. Probably because I downloaded the newer version. I will try put the JPG file into the Tesseract-OCR folder instead

10. Open Command prompt

Error: At this stage I got very confused and asked my IT trained fiance with help on how to use command prompt. .

11. Firstly I need to be in administrator to have permission to edit files in program files folder. (Right click on command prompt icon, right click command prompt, click run as administrator)
12. Next I need to change directory from windows/system32 to the 'working folder' (Type cd "C:\Program Files\Tesseract-OCR")

Error: Can use tab to switch quickly instead of typing out everything

13. Next I need to type what I want it to run (tesseract.exe) what I want it to use as input (test1.jpg) and what I want it to call the output (outputtest). This looks like C:\Program Files\Tesseract-OCR>tesseract.exe test1.jpg outputtest

Error: At first I forgot what I called the jpg file and wrote test.jpg instead of test1.jpg so it failed and I had to go back and change it

Result: I successfully converted the text of the image into text. However the conversion itself was terrible. The phrase "Philosophical Paper -4500 words min" Was changed to "Vb) losoghicad Xager â€œ4500 words in"

Objective: Retry handwritten to digital with tesseract. This time by myself and with much more simple text

Action:

1. Rename JPG file to test2
2. Place test2.jpg in Tesseract-OCR folder
3. Open command prompt in administrator
4. Change directory to Tesseract-OCR
5. Type tesseract.exe test2.jpg outputtest2

Result: Successfully ran through the process by myself, but the test went even worse. The phrase "Hello World" was changed to an arrow pointing upwards.

Overall Result: After having done some more research it doesn't seem like the technology is developed enough to be useful for me. I could spend a lot of time and effort to teach Tesseract my handwriting in particular, but even then I couldn't find any evidence that it could be close enough to 100% effective at this stage. I think this task is just too large for me to complete this semester.