Lessons from the first open access and 100% reproducible PhD thesis

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Surprisingly, no one to my knowledge have ever published an open access and reproducible thesis since the establishment of University of Birmingham in 1900. That said, this is my journey for such PhD thesis that along to the limitations of time and funding, I also face some other challenges, for instance, being a minority and non-native English speaker. Those were the variables that acompanimy in this journey but always with the mindset of making the sciense that I always dreamed of, one which is which is reproduciblity and open accessesible with open source software. My hope is that with this post, my PhD thesis has more visibility and perhaps others can see the do and dont's, barriers of publishing this sort of thesis.

On November 2014, I started the four-year journey of my PhD, firstly struggling to put together sentences of not only using a new language but using other programming languages and tools such as GitHub, python, R, octave. Then for the second year, I created my twitter account, I started to follow Olivia, find the repositories of Bristol researcher, and decided to user R because of the advances of reading huge datasets than python. Also that year I met the Batmat of science, protegenious, who was an open-eyers by following his twitter post, I learnt more and more of the spirit of ROA. Then in the third year it was about time to design an experiment, collect data and make it open accessible and reproducible, also collection references for the write up of my thesis. The fourth year then come along with the challenge of putting together a thesis where I discovered the repo of Rodrigo and its embedded links to the code and various Github websites with videos and zenodo links.

Where is the future of open access and reproducible science, well, recently I have discovere tools called actions either in azure or github which allow you to do continuous development and integration.

It is my hope that others also try to have a go to open access software and make science better by making it open accessible and %100 reproducible (Xochicale, 2019).

References

Xochicale, M. (2019). *Github repository for PhD thesis.* `https://github.com/mxochicale-phd/thesis/`.