

31482 Reflection

Xuanyi Chew

December 24, 2019

1 Motivation of Topic Choice

The main motivation of topic choice was to gain a deeper understanding of the elusive concept of computation. I was already well acquainted with the different notions of computation (Turing Machines, λ -calculi, etc), but the knowledge can best be described as one that is at the surface level. Multiple attempts to unify the knowledge prior to starting to study on Closure Calculus has led to nowhere. My studies with Barry has deepened and finetuned my understanding of computation, but leaves many avenues to explore.

One particular reason for the failure to unify my personal knowledge can be attributed to my carelessness with mathematical expressions in general - I “understand” but the understanding is not well embodied. Thus when I have to go through the motions of performing my understanding, I falter. The early phases with Barry had been a good reckoning of my lack of mathematical maturity.

This particular experience has been instructive. That I am able to whittle down a broad set of ideas to its core and focus is largely due to the interrogations from Barry.

2 Motivation and Review of TRP and TRM

TRP teaches one how to research. It was taught in a slightly schizophrenic manner. The course teaches the importance of good citations, and good research methodologies. However, the resulting assignments were highly focused on the bureaucracies of good research (referencing formats, counting citations, etc). In 2018/2019, these are increasingly mechanized, so it seems a little odd that students were required to manually correct referencing formats when UTS could have just provided an official .bst file. I ended up open sourcing the UTS Harvard Referencing format for \LaTeX (<https://github.com/chewxy/sdiputs>), which at the time of writing this, has gone out of date again.

TRM teaches one how to write about one’s research topics. That was an excellent course, with some minor niggles. The focus on in-class interaction (swapping edits/writes) was an excellent experience. I learned a lot more from this course than TRP. Writing is almost second nature to me, but TRM teaches more than writing. It teaches communicating research ideas in a clear manner.

The minor issues with the class is that foisting interactions caused an uneven experience. I had to email my weekly assignments to fellow students that I suspect did not understand the point of the course - an example is in a task where students are expected to critique each others' writing, I very frequently get critiques that read along the lines of "looks good". That was a bit of a frustrating experience.

3 Reflection on the First Part of The Programme

Overall, it had been a positive experience. There were some close misses, but I cannot complain. I have received adequate support from Barry Jay and Ivor Tsang, and especially with Barry, every encounter has been intellectually stimulating. I also rather enjoyed Murray Elder's classes on discrete maths.

The largest takeaway for me in this is that I can't really afford to be careless about my approach to maths. Being fastidious is a good habit to keep, especially when it comes to research. I have since changed my approach to research - before this programme I would average one paper a night before bed. But now in learning how to read more carefully, it's taken me two to four days on average to read paper. I have also found myself to be a lot more selective with papers, and being much less forgiving of authors who make mistakes within their introductory paragraphs. I suspect this may come back to bite me in the future, but for now, my habits have changed.