Amit Blonder
UBC 399

Economy, Business and Society

Innovation Track

"The aim of this pathway is to encourage an interdisciplinary perspective on how business-society relations have evolved over time and in different places, as well as the socio-political, communication and ethical factors that influence such relations." ("Explore & Select")

From math follows everything. That was my general ideology as I entered into the courses at UB. I presumed that as an engineer, my role was to follow the theory, design my construction, and apply my technical skills. As such, I was only concerned with stacking CSE courses together so that I could simply continue to apply the math and write more code. However, the courses I have taken as part of my thematic pathway were invaluable in giving me the skills and tools of retrospection. That is, I never really looked at my own creations or line of thinking to question whether it was correct. Mostly, my motto was to "just do". However, this train of thought doesn't quite work in the loose and thoughtful nature of DMS 220: Machines, Codes and Cultures, and it was certainly challenged in the rest of the **Economy, Business and Society** pathway as well. The success of taking my first instinct as the truth was especially debunked in the class of microeconomics.

I could not predict how passionate I could get about a course far outside of my general field. For **ECO 182: Introduction to Microeconomics**, this was emphatically the case, and it was because this course challenged many of the ideas that I previously took for granted. Like my class on probabilities, many of the concepts can be counter-intuitive, and can go against my first instinct. I knew I wasn't great at economics, but I certainly did not expect to see such a drastic change of perspective. I found that, combined with the professor's exuberance, being able to look into what I had previously trivially believed and have it utterly refuted is a liberating experience. I now find nothing better than proving myself wrong, because now I can truly see where I had been and what I've actually been staring into. This act of critical retrospection has leaked into my Whitepaper assignment for EAS 360 as well, where I chose the topic of critically analyzing the software I had written for my work. This class was a great introduction into the Economy, Business and Society, since it directly taught me how economy and business impact our world, which led well into the societal focus in the next class.

Like economics, **DMS 220: Machines, Codes and Cultures** was another one of those courses that I did not think relevant to my studies at UB. However, I was again proven wrong when this course compelled me to look outwards to the world around me and really

contemplate how it originated and the direction in which it is going. In my math and science courses I could follow the formulae and procedures and be guaranteed the right answer, whereas in DMS 220 I was shown that there could be more to how we see the world. The materials and technologies that make up our societies, the blurred line between real and artificial intelligence, and the emotional and downright creepy aspects of robotics all contributed to this image. It was then that I figured, if I could start seeing patterns in the world around me, and reveal things I never knew existed, then I could do more than follow the formulae. I could gain insight into why these equations exist and how they fit into the bigger system. This realization was brought closer to my home-base of programming in my last thematic pathway course, CSE 442.

While **CSE 442: Software Engineering** is mostly focused on the completion of a team project, the layout of this course was more oriented into how the development of software takes place, and how it happens in a team. This correlated directly to my work at the UB Nanosatellite Lab (UBNL), where I was working with a team to develop the software for our nanosatellite. Working as a team requires being able to communicate your intentions with others, as well as create plenty of intuitive documentation. However, most importantly, it was a way of looking critically at my own creation in the perspective of other programmers. It was important to take a hard look at how I really was programming, and whether it was okay. Specifically, I dislike writing unit tests, and I've never used to do it before university, since I learned how to write working code on my own. Nevertheless, testing is a fundamental part of creating good code, and this fact, along with other tools of critical introspection, was hammered into us in CSE 442. If I don't have good unit tests and well-organized code, then I really do need to take an introspective session and see whether I can apply my analysis skills I've garnered from my previous thematic courses into the field of programming. While this class may not have had such a direct connection the theme of this pathway, it still provided a sense of the Society of software engineering in general, preparing me for how it exists in the workforce.

These three thematic courses have already shaped the way I take to learning new concepts, as well as my plan of approach to work. Now, don't get me wrong, I still love to just dive into a project and code. I still believe that a fundamental part of me yearns to put the pen to the paper and follow the rules of logic and creativity to build and invent. However, my thematic courses had taught me good practices and the tools of critical analysis and retrospection. It is because of them, I believe, that I can start to look at my work and proudly proclaim, "I was wrong!"