Career Episode Piece 4: Being a Responsible Professional

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# Overview

In this episode, I will first review several key concepts I gained from this course, and discuss how to become a responsible professional (RP) with this knowledge in my future study/career. Next, I will reflect on the definition of RP in different countries, for example, Australia and China. Although RP has a similar concept in common, there are still differences depending on its specific context. In the end, I will leave a brief summary to end this course.

# How will the topics I learned help me become a RP?

## From a personal competence perspective:

During the group project research, I first learned how dose engineering standards/guidelines influence my study/career. For example, OpenAI released GPT-3 API [1] to guide people to have proper use of their technology. In most cases, these regulations also include principles regarding responsible innovation [2] and ethical research [3].

When I was working as a research assistant in China, I normally only focused on programming and model performance, instead of concerning principles/regulations of technology, and cared less about ethical issues and responsibility. After I learned from weeks 2, 6 and 7, I will remind myself to pay more attention to the potential harm and danger that will cause negative impacts on individuals and society before any programming and testing. In long-term research, the project should also be periodically reviewed and evaluated by AI regulators in case of any bias and misuse.

## From a way of thinking perspective:

In week 4, I learned the most important topics that will benefit not only my study/career but also my way of thinking. In the socio-technical systems section, I learned how to use system thinking (ST) as a holistic approach to problem-solving by providing a structure to think about systems [4]. For example, when I was working on a COVID-19 project, I rarely considered other factors such as the economic recession in the ecosystem and virus damage to the natural environment. From now on, I will use a causal loop map as my ST tool to visualize interconnected factors and demonstrate their interactions [5], which helps me to have a better understanding of technology’s influence on the wider society.

From week 5, stakeholder analysis was introduced as a strategy to evaluate stakeholders’ interests and influence on a specific project [6]. Especially, I learned how to use a four-quadrant map to help understand and analyze stakeholders’ involvement. Back in China, I had limited knowledge of stakeholders and the ST mindset, and only dominant stakeholders are considered in my research. After learning the above topics, I implemented ST and the four-quadrant map in the group project that demonstrated the influence of GPT-3 and the stakeholders involved, which helped us understand the feedback loop of stakeholders from each level.

# Differences between being a RP

A RP implies a set of duties within the concept of professional ethics, where the general public would not be expected to have the skills and knowledge in their professional domain [7]. Generally, the definition of RP has the following competencies in common: honesty, integrity, transparency, accountability, objectivity, respectfulness and obedience to the law. Depending on the different social contexts, these characteristics may vary in several dimensions. For example, the Department of Industry, Science and Resources of the Australian Government published eight AI ethics principles [8] that guide AI professionals to be responsible. It emphasizes the contestability of technology, i.e., a RP should allow people to have a timely process to challenge the use or outcomes of their AI system. While in China, Li and Lei proposed in their research [9] that AI experts should also be responsible for the regulatory system, which includes pre-evaluation/pre-management, whole-process monitoring and post-hoc handling.

# Summary

The four episodes cover seven interesting and meaningful topics that will benefit my study /career. Although it is tense and challenging for a non-native English speaker, my writing skills are greatly improved under the supervision of Ali. Thank you for all your tutorials!

# References

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