The Research Plan

Make sure you fill out completely *all* the information in the sections below. Failure to complete these sections fully and honestly may incur a loss of points. Responding to some questions with "no" or "n/a" or "I don't know yet" *is* acceptable; however, leaving any responses blank is not. If you do not understand any questions, you are encouraged to contact your instructor.

Section 1

Name: Prem Rajendran

Your Major: Computer Science

Section 2

On a scale of 1 to 10, how confident do you feel about writing for this course?

9/10

Section 3

Based on your experience from your previous writing course and from the lessons you have received so far in ENG 204, what **three** things have you given extra care and attention towards for this assignment?

1/ *Limiting my wordiness*: I sometimes tend to use too much flowery language in my essays. I am aware that they do not make me sound smarter, but it is almost habitual for me. This usually happens at the cost of conciseness, which can be a costly mistake. However, I have worked long and hard to avoid doing this excessively.

2/ *Run on sentences:* There have been numerous occasions where I have squashed together far too many sentences, which causes my argument to lose its overall structure. After my WRI 101 and WRI 102 instructor gave me feedback, I looked to avoid repeating that

mistake. I can confirm that I have come a long way since then, and I have learnt to shorten my sentences in some regards.

3/ *Procrastination*: This has been a major downfall of mine ever since I was in primary school. I tend to procrastinate far too much, in the belief that in the end I can somehow get through and manage. But this is, for obvious reasons, not a healthy practice, and hence I have decided to work on my organizational skills in terms of completing tasks on time. I have begun using various planning techniques and softwares to enhance my productivity.

Section 4

Working Topic: (e.g., smoking)

1/ Artificial Intelligence

Working Research Question: (e.g., Is smoking beneficial?)

1/ Is artificial intelligence taking over human jobs a step in the right direction?

Working Secondary Questions

You may not have any secondary questions yet – but have a go at writing what some may be. At least, you'll get some feedback from the instructor.

(Examples: What are the benefits of smoking?)

1/ What jobs will artificial intelligence take over?

2/ How does automation improve productivity?

3/ Why would society thrive under an automated environment?

Working Thesis: (e.g., Smoking is beneficial.)

1/ Artificial intelligence taking over human jobs is a step in the right direction.

Working Counter Theses: (e.g., 1/ Smoking is not beneficial. 2/ Smoking may have some benefits, but it has more drawbacks. 3/ Smoking may be beneficial but only when combined with other practices. 4/ Smoking may be beneficial for some people but not for others. Etc.)

1/ Artificial intelligence taking over human jobs would cause many professions to wither away

2/ Artificial intelligence taking over human jobs would be beneficial only if it is controlled

Working Supporting Arguments: (e.g., [Smoking is beneficial because …] 1/ smoking makes you look cool. 2/ smoking helps you lose weight.)

1/ Artificial intelligence would improve efficiency and cause work to be completed at extremely fast speeds.

2/ Artificial intelligence would eliminate human errors in tasks, and make them more precise and accurate.

3/ Automation of tasks would allow humans to switch their focus onto more complex and productive tasks

Working Counter Arguments: (e.g., [Smoking is *not* beneficial because …] because 1/ smoking causes serious diseases. 2/ cigarette smoke is very smelly. 3/ smoking not only harms the smoker, it harms other people in the environment of the smoker.)

1/ Artificial intelligence might take over the world, causing a technological singularity

2/ Artificial intelligence can be unreliable when it comes to processing complex data.

3/ Artificial intelligence needs technologically apt staff to build and maintain.

Write Your Paper Below

Begin your paper at the start of the next page. Note that APA Level 1 headers have been provided. Write appropriate paragraphs within these prescribed areas. Remember to leave the rubric at the end of the paper.

Working Topic

My paper will argue in favor of artificial intelligence replacing human jobs. This topic is relevant today, as technology progresses and becomes more intelligent. There is a mass number of people who believe that machines taking over human jobs would cause millions of professionals left jobless. But this would not be the case, as the rise in artificial intelligence would not make jobs cease to exist. It would rather cause existing job profiles and responsibilities to change. My paper would explore how the apparent risk of all humans being replaced with machines is in fact a misinformed guess made by people who are unaware of the bigger picture.

My paper aims to prove that artificial intelligence would cause more jobs to arise and improve human living standards. It would do this by creating more work in the fields of operating and optimizing artificial intelligence algorithms. This is a stark contrast from popular belief; hence my paper aims to educate and inform the public that letting artificial intelligence perform our repetitive and mundane tasks more efficiently would allow us as human beings to work on more complex and productive tasks. This would in turn cause more innovations that benefit human society, accelerating our progress as a species.

Brief Introduction

This topic is one that is of interest to every single human being on the planet, simply because we live in a world where artificial intelligence is slowly starting to dominate our work force. For example, many car manufacturers in Germany have eliminated human workers completely in favor of machines run using easy-to-use software. This might sound like a negative since human workers are losing their jobs, but that is not the case. These workers have

been taught how to operate these machines and softwares, and have therefore expanded their skill set.

Another example would be demolition robots in the construction field. Before demolition robots were invented, all controlled demolition was conducted using a chisel and a hammer. But after the invention of demolition robots, taking down concrete structures became far quicker and more efficient. It is important to note that the human workers that performed these duties prior to the introduction of demolition robots, have not lost their jobs. They were taught to operate and maintain these robots, since these machines still require human input. The common theme between the above cases is that no matter what, any artificial intelligence that is built to automate tasks still requires a human for it to operate correctly.

On a personal level, this topic is of interest to me since I regularly use machine learning algorithms to conduct data analysis. Having a computer do all the data processing and visualization behind a statistical study makes it much easier to conduct. The results and interpretation of this data requires human thought, but the time-consuming aspect of data science is eliminated. This allows me to conduct more studies and hence unlock more knowledge from data, which in turn broadens my understanding of trends in the real world. Applying this on a large-scale level, encapsulating all the different disciplines in the world, would hence improve innovations in every single field of study.

Research Questions and Methods

The primary working research question for my paper will be: "Is artificial intelligence taking over human jobs a step in the right direction?" I will be using secondary questions to support my argument, such as "What jobs will artificial intelligence take over?" "How does automation improve productivity?" and "Why would society thrive under an automated

environment?" These questions almost perfectly summarize the topic and provide enough information to lay a foundation to convince the audience of my paper. The questions will be answered using peer reviewed scholarly articles that have been birthed via rigorous analysis, research, and testing. This would make it far more trustworthy and reliable in order to persuade the audience about the topic.

In addition to having sources that support my thesis, I will also have sources that aim to refute my stance and point out the fallacies in their argument to further convince the readers of my viewpoint. My preliminary research has been conducted on search engines like Google Scholar and WorldCat. However, I am aware of their limitations in finding deeper and more focused research. Since my topic requires a more technical databases due to its correlation to engineering and computer science, any further research I have will be conducted on scientific and dependable databases like ScienceDirect and IEEE Xplore, which offer more in depth sources on my topic.

References

Wilson, H.J., Daugherty, P. and Bianzino, N. (2017), The jobs that artificial intelligence will create. *MIT Sloan Management Review*, *58*(4), 14-16. https://mitsmr.com/2odREFJ

Tokic, Damir. (2018). BlackRock Robo-Advisor 4.0: When artificial intelligence replaces human discretion. *Strategic Change*. *27*, 285-290. https://doi.org/10.1002/jsc.2201

The sources that I have handpicked are peer reviewed scholarly articles in favor of my topic. The first article "The jobs that artificial intelligence will create," as the name suggests, talks about the various job profiles that will be introduced in an era of artificial intelligence not only in the fields of computer science and engineering, but in fields like economics, education,

management etc. This would support the notion that artificial intelligence is not extinguishing any career paths, but rather changing existing ones and creating more paths for us as humans to explore. The second article "BlackRock Robo-Advisor 4.0: When artificial intelligence replaces human discretion" talks about the example of an artificial intelligence that was built to replace human decisions in the financial market. The key point that I wish to extract from this paper is how in events of entropic human decisions, the artificial intelligence fails and hence cannot replace human consciousness entirely. Rather, it works best in conjunction with human personnel to optimize decisions in the stock market.

Planning

I had mentioned in one of the sections in this research plan that I struggled with procrastination a lot in school and in my first year at university. I have come a long way since then and I have started organizing my time better in a lot of regards. I have four major courses (two of which have corresponding labs) and one lab course, this semester along with ENG 204, but I will not use that as an excuse to falter in this course. Hence, I have noted down my midterm schedule already which allows me to work out which days I cannot devote to ENG 204.

The following days are when I have midterms: March 7 2021 (Linear Algebra and GUI Design and Programming), April 11 2021 (Mathematical Programming), and April 18 2021 (Linear Algebra and GUI Design). In addition to this on week 9 (between April 4th 2021 and April 8th 2021) I have another midterm which is subject to the professor's decision (Data Structures and Algorithms). Finally, I have project submissions for GUI Design and Programming, and Foundations of Statistics for Data Science on both week 14 (9th May 2021 and from 17th May 2021 to 20th May 2021) and one for Mathematical Programming on 23rd May 2021.

This detailed schedule has allowed me to find pockets of time which I can devote for each course separately without having it affect another course. Hence, the below schedule is my tentative plan for ENG 204 this semester based on a biweekly period.

Weeks 4-5: Conduct deeper research, form sub topics, start working on the research proposal, start working on body paragraphs

Weeks 6-7: Continue body paragraphs; proof reading with writing center, professor and teaching assistant

Weeks 8-9: Start introduction and conclusion, submit working draft, start progress report

Weeks 10-11: Reflect on comments in working draft, improve draft further

Weeks 12-13: Peer review, final proof reading with writing center, professor and teaching assistant;

Week 14: Final submission

The reason I chose a biweekly schedule is because in my eyes its important to be flexible and improvise based on the situation. For me the plan is a rough estimate of how much work I need to cover across the semester, but the actual work I need to cover is dependent on the week itself and I plan to stick to this outline for the most part. I also plan on utilizing my spring break to catch up or get ahead on tasks if required.

Checklist

Before submitting, write "YES" for each of the items below. If this section has not been completed in full then your paper will need to be resubmitted as LATE (incurring the usual 10% late penalties).

1/ I have read the rubric, and included all the information required in the pages above. YES

2/ I have pressed spellcheck/grammar check and corrected any text as appropriate. YES

3/ I have carefully read *out loud* my entire paper and corrected issues where appropriate. YES

4/ I have named the file for submission as follows: Research Plan [my iLearn name]

For example: Research Plan Philip Michael McCarthy YES

5/ The file I am submitting is a Microsoft Word document. YES