### **Part 1: Personal Response Questions:**

**Please review the information about AI near the bottom this canvas page (under the section named "Further Reading"), think about what you've read (both here and elsewhere) and then answer the following questions.**

**Please put your responses into a Word DOCX file (or a PDF file - please don't upload Apple Pages files, and please don't send me a link to a Google Doc; you can export Apple Pages and Google Docs to .PDFs in order to upload them).**

**NOTE: These questions don't really have 'right' and 'wrong' answers - the purpose of this part of the assignment is to get everyone thinking about how ChatGPT will change things, and what those changes might look like.**

**1. In the early days of computers all the people employed as 'programmers' were writing their programs in 'low level' languages like machine code or assembly. After a few decades 'high level' languages like Fortran, C, C++, Java, Python... were created and soon after many many more people were employed as 'programmers'. This second wave of programmers often did not know how to program in machine code or assembly - they did not need to. But this second wave of programmers created most all the amazing computer programs we use today. AI Neural nets like chatGPT may represent a similar radical change in what people employed as 'programmers' do. What do you think a person employed as a 'programmer' might be doing 10 years from now?**

One possibility is that programmers will spend less time on coding routine tasks and more on designing, training, and fine-tuning AI models to perform specific tasks. Low level jobs such as basic website maintenance will likely be replaced by AI models. This shift towards AI development could require programmers to have a deeper understanding of mathematics, statistics, data analysis, and the ability to work with large datasets than actual codes.

**2. If AI and neural nets make computers so easy to program that we can just talk to them in regular English; have a conversation with them where they will help us figure out what we want them to do and will just do what we ask, will there still be a need for a job called 'programmer'? Will everyone in a sense be a programmer?**

I believe there will still be a need for programmers, but we don’t need that many of them like we do today. Only top-level programmers will be needed to further train and develop AI, while basic level programmers will likely be replaced.

**3. In the future using AI Neural Nets, what kinds of 'programs' might this next wave 'programmers' create that makes all the cool programs we use now seem old fashioned?**

Predictive analytics: AI Neural Nets can be used to analyze large datasets and identify patterns and trends that are not immediately apparent to human analysts. By using machine learning algorithms, predictive analytics can be used to make highly accurate predictions about future events, helping businesses and organizations make better decisions and plan for the future. The analytic of internet behavior can also help with digital forensic and crime scene analysis as now a lot of things happen in the digital world.

**4. How much prejudices, biases, misogyny, racism, hateful ideas and lies are we as a society ok with existing in the output of these programs? And who is accountable for output produced by an ai neural net? Who gets sued when the neural net gives 'bad advice' that leads to harm?**

None of the hateful ideas should exist. However, since we’re not living in a perfect world, these ideas have existed, and will continue to exist. As an ai neural net’s data were gathered from the internet, everyone has contributed to its output, thus everyone should be accountable for it. However, because everyone is part of it, no one can take 100% of the responsibility for neural net’s bad advice and thus no one should be sued. But I think the company who develops or owns this neural AI should be more cautious about what data they are feeding to AI.

**5. AI chat bot technology has the potential to do some pretty not cool things too. Such as tricking people into thinking they are interacting with a real person, while in reality they are interacting with a computer. If that computer was built by a company trying to sell things, this AI could be a very convincing sales person, even changing its sales pitch to match the personality of the human it is interacting with. Or the AI chat bot could be a very convincing spokesperson for a government or politician intent on swaying people to vote certain policies into law. Do you feel these are real concerns? If so how can we prevent it? If not prevent it, how can we best guard against the negative impacts of such uses of this technology?**

Yes, these are real concerns. As the output of AI is based on data fed to it, if a company or government purposely fed AI bias data, AI will not give the best and accurate answer. One way to prevent this kind of abuse is to establish clear regulations and guidelines for the use of AI chat bots in advertising or political campaign. These guidelines could require companies to disclose when they are using AI chat bots to interact with people, and to ensure that the chat bot is transparent about its intentions and sources it used. Ultimately, the most effective way to guard against the negative impacts of AI chat bot technology is to raise public awareness about the potential for deception and to encourage critical thinking and skepticism when interacting with online content and making decisions.