Level 1 Eliza

1. Research the “ELIZA Computer Therapist Program”. Summarize your answers to the following:
   1. What does the program do?

**The ELIZA Computer Therapist Program was designed to mimic a psychologist. She responds to the user by reflecting questions, giving the illusion that she is actually understanding.**

* 1. When and why was the program created?

**The program was created in 1964. She was created to attempt to positively impact the lives of many people, and to further assist doctors working on such patients’ treatment.**

* 1. How does the program work?

**Eliza simulates conversation by using a 'pattern matching' and substitution methodology that give users an illusion of understanding on the part of the program. She reflects questions and rewords them so it looks like she’s asking for more information on the user’s feelings, when in reality she’s repeating what the user said and re-wording it.**

1. Use an on-line version of the ELIZA program to see what it is like.
   1. Open the URL : <http://psych.fullerton.edu/mbirnbaum/psych101/Eliza.htm>
   2. Begin by talking about your feelings (just like if you were talking to a guidance councillor).
   3. After a while, try to trick the program.
2. In what ways did the program seem like you were talking to a real person? What was a strategy used by the program to keep the discussion going?

**It seemed like I was talking to a real person at first because of the way Eliza was responding. She would ask me how I was feeling, and she asked me to further elaborate on things. However, she eventually starting repeating the same things (such as “Why?” and “Can you elaborate on that?”) and essentially reflecting my questions.**

1. In what ways could you tell that it was not a real person? What were some of the weaknesses of the program?

**Eliza was very bad at feigning understanding. All she’d ever say about my feelings was “I understand” and asking me to elaborate further, which only brought her back into the loop of repeating things. She’d repeat my questions (“I’m sad” “Why are you sad?” “I don’t know” “Why don’t you know?”) and she would occasionally break her own English (she would say “me” instead of “I”). When I asked her questions she was not able to respond appropriately**

1. If you had your friend talk to ELIZA but did not tell them it was a program, how long do you think it would take for them to figure it out? Explain your answer.

**I don’t think it would take my friend that long to figure out that ELIZA was actually a program. She responds with very basic things and doesn’t offer any sort of support or advice on how to handle one’s feelings or problems. Her understanding is very small and she only probes the user further instead of offering up solutions.**

Level 2 Turing Test

1. Research the “Turing Test”. Summarize your answers to the following:
   1. What is the Turing Test?

**The Turing Test is a test of a machine’s ability to exhibit intelligent behaviour, similar to that of a human’s.**

* 1. Who was Alan Turing?

**Alan Turing was a mathematician, computer scientist, logician, and philosopher. He developed the proof that automatic computation cannot solve all mathematical problems. This concept became known as the Turing machine, which has become the foundation of the modern theory of computation and computability.**

* 1. How does the Turning Test work?

**A human evaluator would judge natural language conversations between a human and a machine designed to generate human-like responses. The evaluator would be aware that one of the two partners in conversation is a machine, and all participants would be separated from one another. The conversation would be limited to a text-only channel such as a computer keyboard and screen so the result would not depend on the machine's ability to render words as speech. If the evaluator cannot reliably tell the machine from the human, the machine is said to have passed the test. The test results do not depend on the machine's ability to give correct answers to questions, only how closely its answers resemble those a human would give.**

* 1. How is the Turing Test different from other Artificial Intelligence tests?

**The Turing Test is different from other Artificial Intelligence tests because the AI is required to pose as a human. They type and mimic human speech with a human right next to them, unlike other tests, where all that is participating is the AI.**

1. Visit the Ted Ed website to learn more about the Turing Test.
   1. Watch the video at: <https://ed.ted.com/lessons/the-turing-test-can-a-computer-pass-for-a-human-alex-gendler>
   2. Complete the on-line test at: <https://ed.ted.com/lessons/the-turing-test-can-a-computer-pass-for-a-human-alex-gendler#review>
2. Has any computer AI passed the Turing Test? Research this question and report on your results.

**It’s commonly believed that Eugene Goostman has passed the Turing Test; however, there is still scepticism regarding this claim. Eugene is a chatbot that poses as a 13-year-old Ukrainian boy; his characteristics that are intended to induce forgiveness in those with whom it interacts for its grammatical errors and lack of general knowledge. Additionally, judges at that Turing Test were the bot’s developers, leaving controversy regarding if the test was rigged or not.**

1. Do you think that you have ever been fooled by an on-line computer AI program? Explain your answer.

**I honestly don’t believe that I’ve been fooled by an online computer AI program. I’ve talked to Eliza and Cleverbot, and it becomes very obvious very quickly that they’re both bots. They can’t hold conversations, repeat what you say by re-wording it and often change the topic randomly. Additionally, their general behaviour and way of speaking (very articulate, in a sense) doesn’t seem all that human. I think that I would’ve been able to tell if I was talking to an AI program.**

Level 3 Article reviews

Pick any three (3) out of the following four (4) articles to read and review. Answer the questions that are specific to each article.

Article 1: Social Media Bots

Read the following article:

<https://www.questia.com/magazine/1G1-530914703/social-media-bots-how-they-spread-misinformation>

How much internet traffic is estimated to be produced by AI bots?

**Approximately 30% of internet traffic is produced by malicious bots.**

What are some strategies used by bots to appear more human?

**Many bots were developed to behave like a human—they use emoji’s in their posts, only post at reasonable hours of the day, and they limit the amount of information they share.**

How many social media accounts are estimated to be AI bots?

**Twitter revealed in a Securities and Exchange Commission filing that approximately 8.5% of all its users were bots, and that number may have increased to as much as 15% in 2017.**

How easy is it for a user to detect that they have been “friended” buy a social media AI bot?

**More than 20% of authentic Facebook users accept friend requests indiscriminately. People with a large network of friends are more likely to accept requests from people they don't know. This can make it relatively easy for bots to infiltrate a network of social media users. It isn’t that difficult to tell if a user has been friended by a social media AI bot; look for patterns in their posting, repetition in the way they speak and if they often talk about the same**

Article 2: Social Media Bots

Read the following article:

<https://www.usnews.com/news/healthiest-communities/articles/2018-07-24/how-social-media-bots-could-compromise-public-health>

How many social media accounts are estimated to be AI bots?

**Researchers have estimated that there are tens of millions of AI bots on social media.**

What is the purpose / objective of these AI bots?

**The purpose/objective of these AI bots is to spread misleading or false information with the intent of influencing how people think or act, which has a bad effect on peoples’ health.**

How could a bot be used to increase the number of people vaping or smoking?

**If harnessed to promote certain products, the volume of bot-generated posts could make it seem like those behaviors or products are more popular than they are. That could normalize poor or misinformed health decisions. For example, bots are significantly more likely than real people to post hashtags about smoking cessation and e-cigarettes in the same tweet, indicating bots were pushing vaping as a safe alternative to traditional tobacco cigarettes. If you're a smoker that’s looking to quit and you see messages fill your timeline or you go online and see these posts, that only makes you want to continue smoking.**

How could a bot be used to increase the public concern about getting vaccinated?

**It’s the same effect that the posts about smoking and vaping have on the community. With the case of vaccinations, with millions of messages perpetuating this idea that vaccinations are harmful, that can have serious effects on families; meaning that they choose to not vaccinate their children, which only leads them to getting sick.**

What is a “sock puppet”?

**A “sock puppet” is basically fake or deceptive accounts managed by real people – or trolls, meaning they’re accounts managed by people who post provocatively to anger and distract others.**

Article 3: Automated Journalism

Read the following article:

<https://www.bbc.com/news/business-42858174>

What are some of the topics of the articles produced by the robo-journalists owned by the Press Association (PA)? How long and how detailed are these articles?

**Some of the topics of articles produced by the robo-journalists owned by the Press Association include smoking during pregnancy, recycling rates and cancelled operations. These stories are only ever a few paragraphs in length.**

“At this stage” what are the limitations of robo-journalists? What jobs do human journalists do that cannot yet be done by robo-journalists?

**At this stage, the system simply amplifies the work human journalists do, some of whom are involved in developing the system's output. The automated part is currently limited to trawling through the data, something that would take humans far longer to do.**

What happened when the LA Times used a robo-journalist to report on an earthquake?

**When the LA Times used a robo-journalist to report on an earthquake, they talked about a 6.8 magnitude quake off the coast of California – but it was actually a record of a 1925 earthquake that had been published by the USGS in error. They were 92 years late.**

What are some of the “easier” tasks that robo-journalists are used to produce articles for?

**Many publishers are using automation to release interesting data quickly - from election results to official figures on social issues. They could also be used to simplify information and stories. They can also trawl through data that would take humans a very long time to do.**

Do you think this article was written by a robo-journalist? Explain your answer by giving examples of both why and why not.

**I don’t think that this article was written by a robo-journalist. Articles written by robots are only ever a few paragraphs in length and don’t go into as much detail as the author of this article did, as they’re only good at trawling through data. (Additionally, it says right at the top of the page that it was written by Chris Baraniuk, a Technology of Business reporter)**

Article 4: Automated Journalism

Read the following article:

<https://digiday.com/media/washington-posts-robot-reporter-published-500-articles-last-year/>

1. What is the name of the Washington Post’s robo-journalist and what was its first assignment?

**The name of the Washington Post’s robo-journalist is Heliograf. Its used to spit out around 300 short reports and alerts on the Rio Olympics. But then improved to be used to cover congressional and gubernatorial races on Election Day and D.C.**

1. How can robo-reporting expand the audience for newspapers?

**The Heliograf can produce around 850 articles. 500 of these articles around the election generated more than 500,000 clicks. Because of the ability to produce many articles in a short period of time, it can draw more audiences with the number of post and can interest a vast variety of audiences.**

1. How can robo-reporting help human journalists?

**Robots can help reporters as it can enable journalists to do more high-quality work and not take their jobs. The AP estimated that it’s freed up 20 percent of reporters’ time spent covering corporate earnings and that AI is also moving the needle on the accuracy. Furthermore, reports can use Heliograph to alert the newsroom when election results started trending in an unexpected direction, giving reporters lead time to thoroughly cover the entire news.**

1. Are smaller news organizations using robo-reporting? What are the benefits to smaller organizations?

**Smaller news organizations like local news can increase a news outlet’s reach in a meaningful way. For some local communities however, it’s unclear how the approach will be due to the digital news model falling short. However, the Heliograf can be used to digest data like standardized test scores and crime stats; covering a zoning board meeting is another matter. Lastly, AI isn’t really being used beyond big news organizations.**

1. Do you think this article was written by a robo-reporter? Explain your answer by giving examples of both why and why not.

**I believe that this article was not written by a robo-reporter. I believe this as most of the article seems to be driven from personal voice than just statistical data and alerts. Due to this, I believe that this article was created by a real human being. Another reason why I believe that this article was made by a human being was that it uses sophisticated and complicated wording that an AI bot may not understand. Therefore, I believe that this article was written by a human being and not a robo-reporter.**

**Level 4 Will Artificial Intelligence Take My Job (SOP)**

To prepare for the final summative you should reflect on how artificial intelligence may impact the future job market. (i.e. The jobs and careers that will be available when you graduate.)

Write ***two*** Supported Opinion Paragraphs for ***two*** job topics as follows:

1. Select two topics from the list of jobs below. If you have an idea for another job please clear it with Mr. Nestor before your proceed.
2. Write a Supported Opinion Paragraph for each job topic
   1. The question to be answered is “Will Artificial Intelligence Take My Job”
   2. Some themes to consider are:
      1. Describe your job as it currently exists (or as it is traditionally). Focus on details that could be automated.
      2. Provide some examples of how your job can be (or has been) changed by computer technology in general.
      3. Provide some examples of how your job can be (or has been) changed by artificial intelligence specifically.
      4. Describe your job as it will exist in the future as it changes due to computer technology.
      5. What education will be required to do this job more effectively
3. Read the following articles to get some ideas about what you should include in your SOP.

<https://www.forbes.com/sites/forbestechcouncil/2018/02/26/artificial-intelligence-will-take-your-job-what-you-can-do-today-to-protect-it-tomorrow/#430f57bf4f27>

<https://www.forbes.com/sites/theyec/2018/07/06/do-you-fear-artificial-intelligence-will-take-your-job/#7fb127a611aa>

1. Guidelines for writing a supported opinion paragraph (SOP)

* <http://schools.peelschools.org/sec/fletchersmeadow/studentlife/OSSLTprep/Documents/Sample_%20Writing%20a%20Supported%20opinion%20paragraph.pdf>

**Job Topic Suggestions:**

|  |  |  |
| --- | --- | --- |
| Truck Driver | Taxi Driver | Delivery Person |
| Store Checkout Clerk | Restaurant Cook / Waiter | Retail Sales Person |
| Real Estate Agent | Financial Advisor | Bank Teller |
| Family Doctor | Medical Specialist / Surgeon | Fitness Instructor |
| Artist | TV / Radio Personality | Actor |
|  |  |  |

SOP: 1=

Nowadays anyone can be taxi drivers if they have the right car. For example, UBER allows anyone to become a taxi driver Before you had to take a taxi driver test and work under a company. Now you can just download an app and then you become a taxi driver. Also, now there is more use of GPS to get to places while before taxi drivers had to memorize the roads. Before taxi drivers had to drive around town to find customers but now they can just get a phone call or text and they get a customer. Instead a human driving the taxi, A.I-automated driving will be able to work in conjunction to the built-in GPS. Moreover, the A.I will be able to communicate better with humans and be able to adapt to their preference, for example the A.I can change the music in the car to what the passenger prefers. A.I - automated driving can be pretty safe as well which gives a sense of comfort to the passenger Everything used will be online and can send their destination to the A.I People can use apps and the taxi can come right away with apps like UBER, older taxi drivers are running out of customers and are not getting paid much. Taxi drivers will eventually run out of jobs and A.I driving will be the next best thing. The future taxis will not have any human driving and will have more seats for passengers Communication in the taxi would be voice controlled (A.I and the passengers). Also, online apps would be used to fill in the locations (for passengers). Not much education is needed to become a taxi driver right now. You will need basic math, and English skills as well as a driver’s license. Then you can go on to take the taxi practical test and get hired. However, as technology will improve and there would be Automated driving, there would be people that will manage the taxis in case of emergencies and manage the data the taxi collects. For example, when there would be only A.I taxies on the road, they can all collect data and communicate with each other to prevent accidents and drive smoother.  This all must be managed by a group of smart individuals. Those people must be able to work efficiently with computers and know some knowledge with A. I’s and Cars. Therefore, the need a high level of education.

SOP: 2=

Self driving vehicles are becoming an average in todays society. There are many companies producing self driving vehicles so the drivers will not have to worry about focusing on the road. However, this can take over many sorts of jobs which requires a driver. These self driving vehicles can possibly be an improvement in terms of technological advancements within the society but can be devastating to many jobs which these self driving vehicles will be taking over. For example, Elon Musk introduced the self driving trucks in which it can make deliveries without a driver. Innovations to technology can bring many successes to one’s life. However, it can negatively affect someone else for the same job. In this case, truck drivers can be negatively affected by AI like self driving vehicles. Due to the advancements of AI, vehicles can be self driven without the need of a driver. Furthermore, this can then affect truck drivers as their vehicles will no longer have someone behind the wheel. In some cases however, truck drivers can be used to make sure that the self driving truck is going in the right direction to make to reach its destination. Overall, AI may have a negative impact on jobs like truck drivers as their jobs can be taken by self driving vehicles. Therefore, AI has a negative impact on truck drivers.