**Fall 2016 ENGL 102 Outline (SEMRA D. GURAN)**

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| 1. **Introduction:** Write a detailed plan for your introduction. Give the citation (the original piece as a quote) and source information **(both in-text and end-text in APA)** in the box provided. |

**Attention getting technique:** Rhetorical question: will AI really take our jobs?

**Background information to be covered:**

Definition: What is AI (source 1).

How the use of AI is expanding in our lives without us noticing (source 2).

**Thesis statement:** Artificial intelligence will not take our jobs! Not only it will create more jobs but it will make them better.

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| **Citation:**  **1.** “It is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable”( *McCarthy, 2007*).  McCarthy, J. (*2007, November 12*). What is artificial intelligence?. Retrieved from <http://www-formal.stanford.edu/jmc/whatisai/node1.html>  **2.** “Artificial intelligence (AI) technologies are already proliferating in the enterprise. However, many business leaders don't realize they're leveraging technologies that rely on AI, according to a new study by natural language generation (NLG) specialist [Narrative Science](https://www.narrativescience.com/). Despite the confusion, adoption is imminent”( [Olavsrud](http://www.cio.com/author/Thor-Olavsrud/), 2016, para. 1).  [Olavsrud](http://www.cio.com/author/Thor-Olavsrud/), T. (2016, July 21). AI expanding in the enterprise (whether or not you know it). Retrieved from http://www.cio.com/article/3098708/it-industry/ai-expanding-in-the-enterprise-whether-or-not-you-know-it.html |

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| 1. **Body Paragraph (COUNTER ARGUMENT&REFUTATION):** Plan your COUNTER ARGUMENT & REFUTATION paragraphs using this template. Note that you need to make a citation for each COUNTER ARGUMENT. Give the citation (the original piece as a quote) and source information **(both in-text and end-text in APA)** in the box provided. Making a citation for the refutation is optional. |

**Topic sentence: Artificial intelligence will destroy our jobs.**

**Counter Argument 1**

**A. (MAIN) Robots will destroy our jobs (source 1).**

**a) (SUPPORT) Robots are pushing aside their human counterparts (source 2).  
b) (SUPPORT)** optional

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| **Citation:**  **1. “**Somehow, we believe our livelihoods will be safe. They’re not: every commercial sector will be affected by robotic automation in the next several years. For example, Australian company Fastbrick Robotics has developed a robot, [the Hadrian X](http://fbr.com.au/), that can lay 1,000 standard bricks in one hour – a task that would take two human bricklayers the better part of a day or longer to complete**”** (Shewan, 2017, para.3).  Shewan, A.(2017, January 11). Robots will destroy our jobs – And We’re not ready for it. Retrieved from https://www.theguardian.com/technology/2017/jan/11/robots-jobs-employees-artificial-intelligence  **2.**  “The robots haven’t just landed in the workplace—they’re expanding skills, moving up the corporate ladder, showing awesome productivity and retention rates, and increasingly shoving aside their human counterparts. One multi-tasker bot, from Momentum Machines, can make (and flip) a gourmet hamburger in 10 seconds and could soon replace an entire McDonalds crew”(Ford, n.d, para. 1).  Ford, M. (n.d). Rise of the Machines: The Future has Lots of Robots, Few Jobs for Humans. Retrieved from https://www.wired.com/brandlab/2015/04/rise-machines-future-lots-robots-jobs-humans/ |

**Refutation 1**

**A. (MAIN) Robots will replace tasks, not jobs (Source 1).**

**a) (SUPPORT) Automation creates more jobs (Source 2).  
b) (SUPPORT)** optional

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| **Citation (**optional)**:**  **1. “**However, an analysis by the Centre for European Economic Research (ZEW) puts this figure at 9%. Interestingly, more optimistic experts suggest that professions do not get automated, but rather specific tasks. Since a worker usually executes a wider range of tasks, his or her job will not be fully replaced by a robot.This is best explained by an example: take, for instance, a nurse. To keep it simple, let’s reduce the profession to two tasks: interacting with patients and dispensing food. The latter can probably be automated – a robot might even be less prone to the risk of mixing up diet plans.However, the interaction with the patient will still need to be done by a human being. A nurse assisted by a robot will even be able to improve the work by having more time to care for patients.**”** (Brodtmann, 2017).  Brodtmann, T. (2017, January 27). Robots won’t steal your job, they’ll make work more interesting. Retrieved from <http://www.euractiv.com/section/digital/opinion/robots-wont-steal-your-job-theyll-make-work-more-interesting/>  **2.** “Though automation will cost some jobs, it will also create many others. A case in point is the rollout of ATMs in the US. Introduced in the 1970s, the number of ATMs increased from 100,000 to 400,000 between 1995 and 2010. Running an ATM is cheaper than paying a teller’s salary, so as ATMs became more numerous relative to tellers, the overall cost of each bank branch came down. As it became cheaper to operate a bank branch, more of them opened, ultimately resulting in the number of bank branches increasing by 40% between 1988 and 2004. This means that more tellers were hired to staff these branches, not less. Instead of ATMs putting bank tellers out of work, US bank-teller employment actually increased over the three decades between 1980 and 2010. The reason for the growth was the added productivity gains brought on by automation”(Andrews, 2017).  Andrews, T. (2017, March 15). Robots won’t take your job—they’ll help make room for meaningful work instead. Retrieved from https://qz.com/932417/robots-wont-take-your-job-theyll-help-make-room-for-meaningful-work-instead/ |

**Counter Argument 2**

**A. (MAIN) AI will increase economic disparities (source 1).**

**a) (SUPPORT) we can’t insure the share of benefit of AI (source 2).  
b) (SUPPORT)** optional

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| **Citation:**  **1.** “If you think inequality is a problem now, imagine a world where the rich can get richer all by themselves. Capital liberated from labor means not merely the end of work, but the end of the wage. And without the wage, workers lose their only access to wealth – not to mention their only means of survival. They also lose their primary source of social power. So long as workers control the point of production, they can shut it down. The strike is still the most effective weapon workers have, even if they rarely use it any more. A fully automated economy would make them not just redundant, but powerless” (Tarnoff, 2017).  Tarnoff, B. (2017, march 2). Robots won't just take our jobs – they'll make the rich even richer. Retrieved from <https://www.theguardian.com/technology/2017/mar/02/robot-tax-job-elimination-livable-wage>  **2.** **“**AI expert [Yoshua Bengio](https://futureoflife.org/2017/01/18/yoshua-bengio-interview/) suggests that equality and ensuring a shared benefit from AI could be pivotal in the development of safe artificial intelligence. Bengio, a professor at the University of Montreal, explains, “In a society where there’s a lot of violence, a lot of inequality, [then] the risk of misusing AI or having people use it irresponsibly in general is much greater. Making AI beneficial for all is very central to the safety question.”**”**(Conn, 2017).  Conn, A. (2017, March 17). Artificial Intelligence and Income Inequality. Retrieved from https://futureoflife.org/2017/03/16/shared-prosperity-principle/ |

**Refutation 2**

**A. (MAIN) AI will give more opportunities (source 1).**

**a) (SUPPORT) the argument is based on fear not facts.  
b) (SUPPORT)** optional

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| **Citation (**optional)**:**  **1. “**AI will be better than anything today at helping you [find](http://www.newsweek.com/2015/08/28/tech-about-take-work-out-finding-your-perfect-job-362902.html) whatever new jobs it creates. AI will power software that gets to know you, your skills and your desires and will constantly monitor job openings and freelance opportunities all over the planet for you. The U.S. Department of Labor says there are about 8 million unemployed people and 4.5 million open jobs. An AI matching system can bring those numbers down dramatically by making sure more people find work” (Maney, 2016).  Maney, K. (2016, November 30). How artificial intelligence and robots will radically transform the economy. Retrieved from http://www.newsweek.com/2016/12/09/robot-economy-artificial-intelligence-jobs-happy-ending-526467.html |

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| 1. **Body Paragraph (PRO 1):** Plan your PRO paragraphs using this template. Note that you need to make a citation for each PRO. Give the citation (the original piece as a quote) and source information **(both in-text and end-text in APA)** in the box provided. |

**Topic sentence: AI will create more jobs rather than taking them, and it will make jobs better.**

**A. (MAIN) AI will create jobs (source 1).**

**a) (SUPPORT) increase workers’ skills and education level (source 2).**

**b) (SUPPORT)** optional

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| **Citation:**  **1. “**While many individuals in attendance at Davos are concerned that these factors could produce a long-term backlash, Rometty seems to disagree. She elaborated that it's the relationship between AI solutions, such as Watson, and human workers that will create new jobs in the long run, and that platforms like Watson can only succeed in adding to what people are able to do, rather than taking over for them entirely” (“IBM CEO says AI and automation will create jobs**”,** 2017).  IBM CEO says AI and automation will create jobs.(2017). Retrieved from <http://www.businessinsider.com/ibm-ceo-says-ai-and-automation-will-create-jobs-2017-1>  **2.** “Companies in Microsoft's AI venture fund will "help people and machines work together to increase access to education, teach new skills and create jobs, enhance the capabilities of existing workforces and improve the treatment of diseases, to name just a few examples," Nagraj Kashyap, corporate vice president of Microsoft Ventures, wrote in a blog post Monday.”(Pattani, n.d., para.6).  Pattani, A. (n.d.) Microsoft-backed start-up thinks AI is a good bet to save human jobs. Retrieved from http://www.cnbc.com/2016/12/12/microsofts-places-a-bet-that-ai-will-create-more-jobs-than-it-kills.html |

**B. (MAIN) AI will make our jobs better (source 1).**

**a) (SUPPORT) increased efficiency (source 2).**

**b) (SUPPORT)** optional

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| **Citation:**  **1. “**With superior virtual reality and machine-iteration systems, average food technologists can carry out a more varied range of biochemical explorations. Nurses can perform a wider range of imaging tests. Fashion design trainees can contribute more effectively to the fabric technology sourcing process. And so on and so forth” (Simons, 2016). Simons, B. (2016, November 29). Artificial intelligence will save jobs, not destroy them. Here's how. Retrieved from https://www.weforum.org/agenda/2016/11/how-prohuman-ai-can-change-the-job-market/ **2.** “Dr Barani (who used to be an oncologist) points to some CT scans of a patient’s lungs, taken from three different angles. Red blobs flicker on the screen as Enlitic’s deep-learning system examines and compares them to see if they are blood vessels, harmless imaging artefacts or malignant lung nodules. The system ends up highlighting a particular feature for further investigation. In a test against three expert human radiologists working together, Enlitic’s system was 50% better at classifying malignant tumours and had a false-negative rate (where a cancer is missed) of zero, compared with 7% for the humans. Another of Enlitic’s systems, which examines X-rays to detect wrist fractures, also handily outperformed human experts. The firm’s technology is currently being tested in 40 clinics across Australia” (“Artificial intelligence: The impact on jobs”, 2016).  Artificial intelligence: The impact on jobs. (2016). Retrieved from  http://www.economist.com/news/special-report/21700758-will-smarter-machines-cause-mass-unemployment-automation-and-anxiety |

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| 1. **Body Paragraph (PRO 2):** Plan your PRO paragraphs using this template. Note that you need to make a citation for each PRO. Give the citation (the original piece as a quote) and source information **(both in-text and end-text in APA)** in the box provided. |

**Topic sentence: AI will help remove constraints on human talent and create innovation.**

**A. (MAIN) Remove constraints (source 1).**

**a) (SUPPORT) Workers will focus on more meaningful tasks (source 2).**

**b) (SUPPORT)** optional

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| **Citation:**  **1. “**"There is so much untapped talent and human capability and capacity that is constrained by the fact that we spend so much time just doing things that computers can do way better," Levie told CNBC during an interview last week**”(Graham, 2017, para.3).**  Graham, L. (2017, April 10). Think about the jobs A.I. will create, not what it'll take away, says Box CEO Aaron Levie. Retrieved from <http://www.cnbc.com/2017/04/10/think-about-the-jobs-a-i-will-create-not-what-itll-take-away-says-box-ceo-aaron-levie.html>  **2.** “"To me it is astounding that in Australia we are so obsessed with bricks and mortar property, but we are less concerned with investments in our own intellectual property, and AI certainly raises the stakes to ensure our thinking remains future-compatible. If you think like a 'futurephile' you will see that AI will free up our time to do meaningful work -- a sales professional, rather than spending 30 to 40 percent of their day doing data-entry, can fit in more meaningful meetings with humans, and a financial adviser can focus on more actively helping their clients' fulfil their financial dreams by outsourcing some regulatory work to [RegTech](http://www.forbes.com/sites/forbesfinancecouncil/2016/12/14/the-rise-of-regtech-and-what-it-means-for-your-business/#502da72e4910) instead," Sorman-Nilsson said” ([Leigh Campbell](http://www.huffingtonpost.com.au/leigh-campbell), 2017, para.13).  Campbell, L. (2017, February 16). Will Artificial Intelligence Take Our Jobs? We Asked A Futurist. Retrieved from <http://www.huffingtonpost.com.au/2017/02/15/will-artificial-intelligence-take-our-jobs-we-asked-a-futurist/> |

**B. (MAIN) AI will increase innovation (source 1).**

**a) (SUPPORT) AI will make us smarter (source 2).**

**b) (SUPPORT)** optional

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| **Citation:**  **1. “**An essential benefit of AI is its ability to comb through data much faster than humans. Every year, millions of scientific reports are [published](http://www.stm-assoc.org/2015_02_20_STM_Report_2015.pdf), a number that only increases as time passes. Not only would it take a human much longer to review any given publication, it is impossible to review them all. However, by working together with AI, humans are able to consider vast amounts of new information in new ways. For example, according to the [White House report](https://obamawhitehouse.archives.gov/sites/default/files/whitehouse_files/microsites/ostp/NSTC/preparing_for_the_future_of_ai.pdf), Preparing for the Future of Artificial Intelligence, “At Walter Reed Medical Center, the Department of Veteran Affairs is using AI to better predict medical complications and improve treatment of severe combat wounds, leading to better patient outcomes, faster healing, and lower costs.”**” (**[Piechowski](http://www.businessofgovernment.org/bio/darcie-piechowski), 2017**).**  [Piechowski](http://www.businessofgovernment.org/bio/darcie-piechowski), D. (2017, February 2). Artificial Intelligence as a Driver for Innovation. Retrieved from <http://www.businessofgovernment.org/blog/business-government/artificial-intelligence-driver-innovation>  2. “We are in for a change; a different kind of change than we’ve ever experienced. In the past, change has typically been based on technologies that make us faster and more efficient. We’re now entering a time of change where intelligent technologies are going to make us smarter. As our machines transform from tools into intelligent partners, they’ll allow us the freedom to perform at the top of our game. We’re already seeing intelligent technologies being adopted in the workplace and their impact is quickly accelerating. In the near future, we will see change driven by technologies that answer questions, assess situations and communicate insights” (Rossi, 2014).  Rossi, B. (2014, November 24). How artificial intelligence will make humans smarter. Retrieved from http://www.information-age.com/5-steps-centralising-disparate-technology-teams-123458667/ |

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| 1. **Conclusion:** Write a detailed plan for your conclusion. Step by step explain how you are going to conclude your paper. Give the citation (the original piece as a quote) and source information **(both in-text and end-text in APA)** in the box provided if you are going to make any reference. |

**Step 1: Rephrase thesis statement.**

**Step 2: Brief summary of main points.**

**Step 3: A warning to people to not base this debate on fear of the unknown but on facts instead.**

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| **Citation (**optional)**:** |