



**AGD 2017  
FALL SEASON**

**PRO CASE**



NHSDLC WeChat

*The following sample case has been prepared by the NHSDLC/AGD Academic Team. It is designed to be a **starting point** for you to construct your own cases.*

*As you read through the case, look at its structure, as well as how each contention is broken down into a claim, warrant, and argument. We have highlighted key points with our comments on the right-hand side.*

*Once you understand the structure of the case, you should try to come up with some contentions of your own. Cases containing your own material will be more effective. There are **flaws** in the following case. Moreover, your opponents will likely have seen the sample case and be prepared to respond to it.*

We stand PRO on the resolution Resolved: The benefits of using artificial intelligence outweigh the harms.

*Start your constructive by making it clear which side you are on.*

[Definition]: John McCarthy, a computer science professor at Stanford, defines artificial intelligence as the science of making intelligent machines. Especially, using computers to understand or act like humans do. An intelligent machine uses computational ability to look toward the future and achieve goals.<sup>1</sup>

*The definition explains what you think artificial intelligence is for your case and the debate.*

[Framework]: Artificial intelligence is ultimately about the development of advanced technology, so our framework for this debate is that the development of artificial intelligence should provide benefits for people who are in need, for example, starving people in underprivileged countries. Under this framework, pro will win the debate by showing that AI will provide the greatest amount of benefit, by helping those who are most in need.

*The framework tells the judge how to evaluate the debate. Your framework is how you win the debate.*

*Claim (What you think the framework should be)*

*Standard (How does the judge know that you have won the debate?)*

~

[Contention 1]: Our first contention is healthcare. Artificial intelligence will result in more accurate and accessible medical diagnostics, saving millions of lives every year.

*Claim (Summarizes your argument for the judge). Make sure to have a clear name for your contention.*

According to the World Health Organization, more than 400 million people globally suffer from lack of medical care.<sup>2</sup> These people do not have access to basic services to tell whether they are sick, what disease they might have, and how to treat it. They also lack the money to go to the doctor regularly. According to the Children’s Hospital of Pennsylvania, this results in over 4 million deaths annually from preventable diseases.<sup>3</sup>

*This paragraph outlines a current problem. The next paragraph will explain why AI solves that problem and finally why the problem matters.*

Artificial intelligence provides a way to alleviate these problems because it will improve diagnosis. Simon Parkin, writing for the MIT Technology Review, notes that artificial intelligence will let patients tell an app their symptoms, and this app can check against a known database of symptoms, using machine learning to give a more accurate diagnosis. This is better than traditional diagnosis because it is cheaper, doesn’t require a visit to the doctor, and is more accurate because doctors do not have the same memory or processing power as a machine.<sup>4</sup> After people know something is wrong, artificial intelligence can suggest personalized treatment based on their situation, saving millions of lives each year.

*Warrant*

*Impact*

This links to our framework because artificial intelligence will improve the quality of life of millions of people suffering from disease by making it easier to prevent and treat disease.

*Remember to explain why each contention relates to your framework, so that the judge knows why you win under your framework.*

[Contention 2]: Our second contention is global wealth creation. Artificial intelligence will create huge increases in economic productivity, resulting in price decrease that will increase everyone’s real income, or ability to buy things.

*Clear name that summarizes contention*

*Claim*

According to the World Bank, nearly 800 million people live in extreme poverty. They cannot afford basic needs such as medicine, food, water, and shelter.<sup>5</sup>

*A problem with the status quo.*

Stanford's 100 Year Study on Artificial Intelligence notes that artificial intelligence could provide a solution to this problem.<sup>6</sup> Throughout history, technology has improved economic productivity. Artificial intelligence allows increases on an even larger scale. With artificial intelligence, precision farming makes food cheaper to produce, efficient self-driving transportation makes it easier to move, and connected global networks allow equitable distribution. This is just one example of how artificial intelligence can alleviate a critical shortage. However, the principle applies to every good, from books to medical devices. This efficiency will decrease the cost of producing and transporting goods, making a high quality of life accessible to those in poverty. The new affordability of mass, artificial-intelligence produced goods will result in everyone being able to buy them. The impact is global wealth creation, by reducing cost of living.

*This paragraph explains why AI solves the problem you outlined above.*

← *Warrant*

← *Impact*

This links to our framework because it proves artificial intelligence can alleviate the suffering of hundreds of millions of people living in extreme poverty right now.

*This explains why AI solving the problem you identified is relevant to your framework, and thus why you should win.*

[Contention 3]: Our third contention is reducing exploitation of workers. Artificial intelligence will let robots replace people in jobs with bad working conditions, at the same time creating new jobs that don't cause suffering.

← *Name of your last contention*

← *Claim*

Millions of people in third-world countries work in low-paying jobs. The demand for their labor is high because they can produce cheap goods, like clothes. These people become trapped in their jobs, at the hands of abusive employers and poor working conditions that result in permanent health problems and early death.

*A problem with the status quo, introducing a possible impact related to solving the problem.*

Artificial intelligence provides a solution to worker exploitation. Owen Bowcott, a legal affairs correspondent for the Guardian, observes that because artificial intelligence can learn how to produce goods faster and for a lower cost than people can, the competitive advantage of third-world countries will disappear.

*This paragraph explains why AI solves the problem from the last paragraph.*

← *Warrant*

Artificial intelligence can replace their jobs at a lower cost, so they no longer need to work in poor conditions.<sup>7</sup> This means they are no longer at the mercy of exploitative employers.

← *Impact*

At the same time, jobs with better working conditions and higher pay will be created by artificial intelligence, giving these people new and better employment. Douglas Eldridge writes that artificial intelligence will create higher-paying jobs with better working conditions that were previously unimaginable, so job loss cannot be a CON argument against artificial intelligence because it discounts job creation. Any job that is lost will just be replaced with a better job that doesn't exploit its workers.<sup>8</sup>

*This paragraph elaborates on how you solve the problem described above. It answers a possible CON objection to your argument.*

This links to our framework because artificial intelligence will let suffering people move out of jobs with bad working conditions into jobs with better working conditions.

*Explain how this argument links to your framework, and why it matters.*

For these reasons, we urge a PRO ballot.

*Finish your constructive by telling the judge who to vote for!*

## **Sources**

[1] McCarthy, John. "What is artificial intelligence?" 2007. <http://www-formal.stanford.edu/jmc/whatisai/>

[2] World Health Organization. "New report shows that 400 million do not have access to essential health services." 2015. <http://www.who.int/mediacentre/news/releases/2015/uhc-report/en/>

[3] Children's Hospital of Pennsylvania. "Global Immunization: Worldwide Disease Incidence." 2017. <http://www.chop.edu/centers-programs/vaccine-education-center/global-immunization/diseases-and-vaccines-world-view>

[4] Parkin, Simon. "The Artificially Intelligent Doctor Will Hear You Now." Mach 9, 2016. <https://www.technologyreview.com/s/600868/the-artificially-intelligent-doctor-will-hear-you-now/>

[5] The World Bank. "Poverty." 2013. <http://www.worldbank.org/en/topic/poverty/overview>

[6] One Hundred Year Study for Artificial Intelligence at Stanford. "Artificial Intelligence and Life in 2030: Report of the 2015 Study Panel." September 2016. [https://ai100.stanford.edu/sites/default/files/ai\\_100\\_report\\_0901fnlc\\_single.pdf](https://ai100.stanford.edu/sites/default/files/ai_100_report_0901fnlc_single.pdf)

[7] Bowcott, Owen. "Rise of robotics will upend laws and lead to human job quotas, study says." April 3, 2017. <https://www.theguardian.com/technology/2017/apr/04/innovation-in-ai-could-see-governments-introduce-human-quotas-study-says>

[8] Eldridge, Douglas. "Why the Benefits of Artificial Intelligence Outweigh the Risks." February 22, 2017. <http://www.cmswire.com/digital-experience/why-the-benefits-of-artificial-intelligence-outweigh-the-risks/>

*Always keep track of your sources, so that you or your opponents can go back to them. Make sure you have an easy way (such as a flash drive, print out, laptop,) for your opponent to be able to access your evidence. This will mean less difficulty for you should your opponent want to view your evidence. Remember that debate is an academic game centered around research, so make sure you know where your facts come from, and be prepared to show it.*