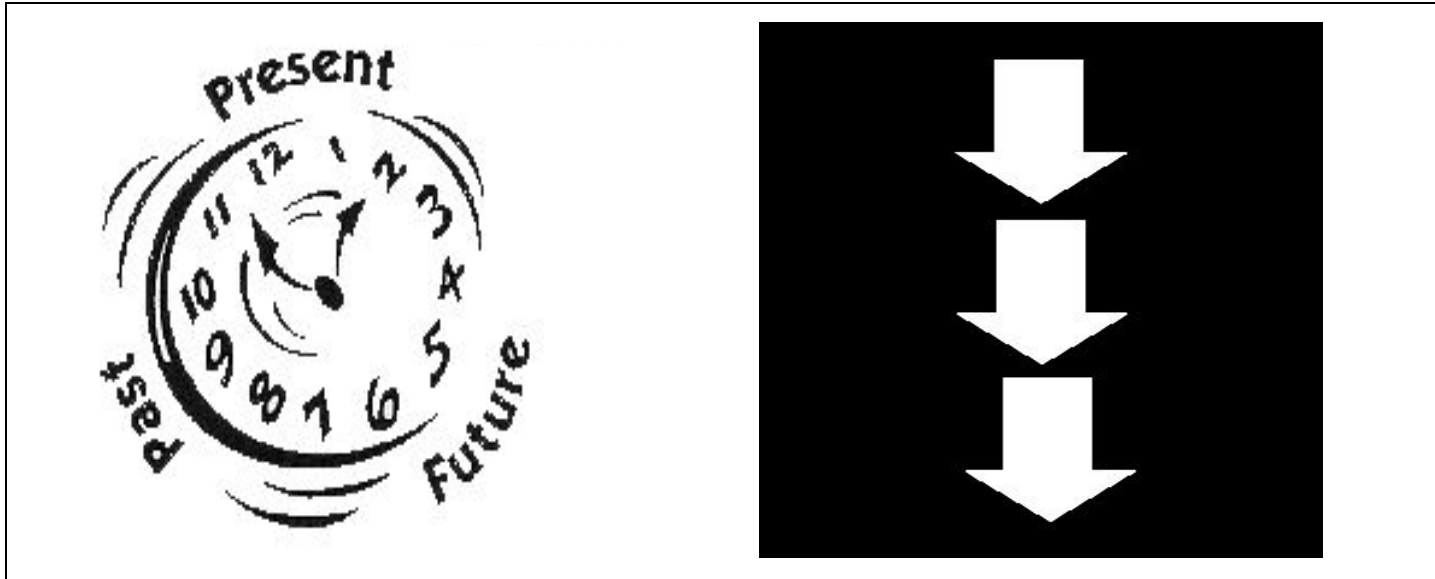Driving Question: How will human intellect adapt overtime due to the contributions of artificial intelligence?

Will ethics change how AI impacts humanity?	*The ethics on the effects of AI on humans can be **positive or negative** because our ethical morals of good and bad can positively or negatively affect the limits of AI (If tons of people lose their jobs to technology, should we stop letting AI take our place, in sacrifice of faster/better ways of doing thing?)*
What patterns can be seen when tech is inserted into our lives?	*Patterns seen in artificial intelligence **are planned or spontaneous** because sometimes new tech affects humans in ways we don't suspect, but sometimes we do plan on what happens (We are making robots specifically on some subjects so they can be better than us, which is planned, but ends up being dumber in other categories, which was spontaneous)*
How does the ongoing contribution of AI affect humanity?	*As more and more AI is introduced into the world, it would **lead to changes** that **occur over time** based on the new advances in technology (For example, when the atomic bomb was used, it lead to a major change and still affects us to this day)*

Will ethics change how AI impacts humanity?

Ethics is related to

- *Astro Teller talks about how people's ethics and beliefs on how AI is evil or can be used negatively affects AI and us too, by saying that "having done a Ph.D. in AI in the 90's, I've been working for over twenty years to help people understand AI and to calm dystopian hysteria that has wormed its way into discussions about the future of AI and robotics. Only by clearing away panicky rhetoric we can have a productive conversation about how those fields can be*

artificial intelligence because unlike humans, robots/AI don't have ethics. Our ways of thinking of good and bad, positive

explored to the maximum benefit of humanity"(2016). Showing how clearing away people's beliefs in that AI is unethical will help shine its true potential, basically saying that ethics can impact humanity.

- Max Tegmark of the Future of Life Institute speaks on about how AI can negatively impact us, "In the near term, the goal of keeping AI's impact on society beneficial motivates research in many areas, from economics and law to technical topics such as verification, validity, security and control. Whereas it may be little more than a minor nuisance if your laptop crashes or

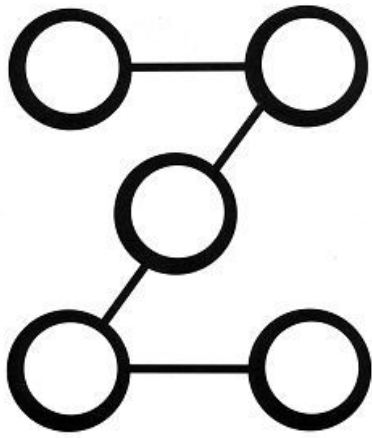|	
and negative, affect us in many different ways.	gets hacked, it becomes all the more important that an AI system does what you want it to do if it controls your car, your airplane, your pacemaker, your automated trading system or your power grid. Another short-term challenge is preventing a devastating arms race in lethal autonomous weapons"(2015). **Showing how we are taking measures into safety is plainly telling us that as we take ethics into account, and make AI to fit these ethics, it helps shape AI and if it will have positive, or negative, effects on us.** ● *"In the same way that people are*

spending more and more time with their phones, people may spend more and more time interacting with AI rather than with each other. Also, as always with new technologies, there will be economic disruptions as old jobs and professions go away and new ones come on board" (Blum, 2017). People are spending more time on their devices instead of with each other nowadays and new jobs replace old ones with is all ethical because it is morally wrong for people to become more anti-social and the jobs that replace old ones could let out many workers who

	might not have the experience or qualification for the new jobs.
What patterns can be seen when tech is inserted into our lives?	• *Humans have experienced lots of changes, and therefore grown accustomed to that. One pattern seen through this is told in Adam's article on humans adapting, "Fear of technology is nothing new. Telephones, watches and televisions were similarly believed to interrupt people's lives and pressure them to be more productive. In some ways they did, but the benefits offset the stressors. New technology is making our lives different, but not necessarily more stressful than they*

Patterns is seen through the patterns of how humans react to new technology. The patterns

would have been otherwise. 'It's yet another example of how we overestimate the effect these technologies are having in our lives,' said Keith Hampton, a sociologist at Rutgers and an author of the study"(2015) This spontaneous fear and/or aggression towards new technology has been happening for quite a while, and it always has to do with people over exaggerating the dangers technology has.

- *AI is smart and excels in some categories, but it ends up being way dumber in certain categories, says Michael Franco, "Recently we've seen the technology do everything*

seen could be started with the introduction of different and special types of AI.
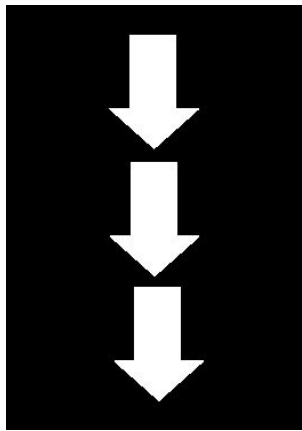
from reading lips better than the experts to playing in a poker tournament and trouncing its human competition. But the fact remains that AI falls short in the most trivial of tasks for humans —interacting with the physical world and perceiving natural signals — indicating that AI systems are simply powerful computing machines with a misleading title"(2017). **This can show how planned and spontaneous AI can be, by having them planned to be smart in some places, but spontaneously trash in others.**

- *"It's possible we may become lazier*

	as we offload more thinking tasks to AI helpers''(Blum, 2017). A pattern that can be seen as more types of AI comes into our lives the lazier we become because the AI does all the work for us.
How does the ongoing contribution of AI affect humanity?	● *The ongoing contribution of AI is affecting humanity in many ways, one way they are affecting us, Stephen says, is through taking our jobs, "The greatest worry for many analysts, including Gates, is the number of jobs that artificial intelligence systems are poised to take over. Mark van Rijmenam reports, 'The potential of Artificial*

Contributions is seen on how AI will contribute to us with an impact on humanity.

Intelligence is enormous and in fact a 2013 study by Oxford University estimated that Artificial Intelligence could take over nearly half of all jobs in the United States in the near future.'" **This can show how the contributions of AI will help change us over time by taking some jobs humans used to have.**

- *Of course, the contributions AI will give won't happen instantly, and the scientists interviewed for the NY Times know that, "Scientists have begun what they say will be a century-long study of the effects of artificial intelligence on society, including on the economy, war and*

There are many different ways AI could contribute. It helps us with the dangerous jobs that might be too risky for humans

crime, officials at Stanford University announced Monday. The project, hosted by the university, is unusual not just because of its duration but because it seeks to track the effects of these technologies as they reshape the roles played by human beings in a broad range of endeavors. 'My take is that A.I. is taking over,' said Sebastian Thrun, a well-known roboticist who led the development of Google's self-driving car. 'A few humans might still be 'in charge,' but less and less so.'" **Stating that the researchers trying to find out how AI will affect humanity have**

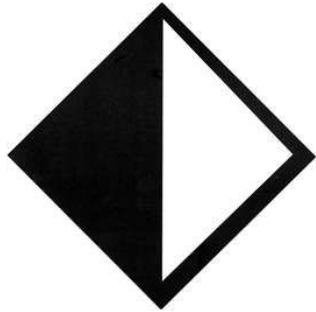|	
and send the robots instead.	**done this for an extended amount of time, proving that AI affecting us will occur over time.** • *"Another thing AI can offer humanity is to help us make better decisions. Right now, for instance, Google and Wikipedia can offer a lot of information, but they don't synthesize it for us (and you need to know what to look for)"(Blum, 2017). This means that Artificial Intelligence can contribute to humanity by helping us find the information we need online, even if it doesn't give the right information, it leads us in the correct path and that's how AI affects humanity.*

Artificial Intelligence:

LANGUAGE OF THE DISCIPLINE

Artificial Intelligence is the type of intelligence that machines or computers use in order to run or function in a manner similar to natural intelligence. Types of Artificial Intelligence can be found in many places such as robots, video games, computers, etc. Today's Artificial Intelligence is totally different to natural, human intelligence, but scientists are always working on this subject.
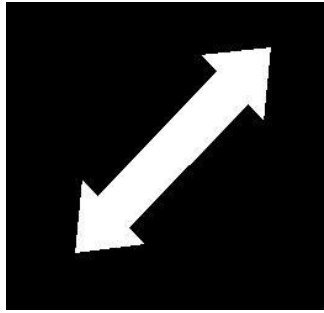
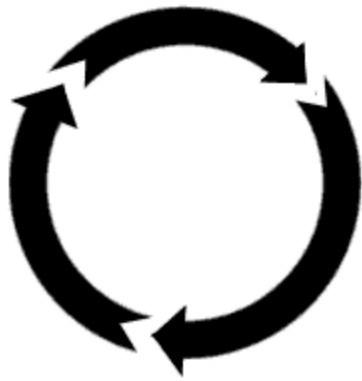|	
Adaptation Can Be Positive Or Negative	*As humans adapt due to Artificial Intelligence, positive and negative influences will obviously occur. We could become lazy and have AI do all the hard work for us, or we could learn from AI, and become even smarter. It all depends on how AI is created and used. When we put ethics into account when creating AI, it helps us influence AI, and eventually ourselves, to make positive or negative effects.*
Adaptation Can Be Planned Or Spontaneous	*When AI is impacting us and the world we live in, it can go as we planned, or end up doing something spontaneous. We have AI that excel in subjects, and can even surpass humans in them, but they end up losing a sort of common sense, which was*

	unplanned. If you told a robotic car to get you to somewhere in the fastest means possible, it might harm pedestrians or make senseless decisions to achieve this, which came out spontaneously. These sorts of patterns can be found everywhere in the technology of today where unintended consequences may harm more than benefit humanity.
Adaptation Leads To Change/ Adaptation Occurs Over Time	Adaptation basically always leads to change, and it happens over time, so the two go hand in hand. We humans adapt to technology, including AI, as an animal adapts to the change in season over time. When people adapt to something, of course it will lead to change, that's the definition of adapting to something,

changing to fit something's requirements or needs. If we are going to adapt to the contributions of AI, we will have to change. AI has taken over some jobs we humans used to have, and that helps change us, you decide for the better or worse. Though this doesn't happen all in one day, it may take years even. Scientists have studied the same idea, whether AI and technology is changing us, but they started this since years ago. Since we will have to wait to see how humans adapt to these circumstances, it proves how adaptation will occur over time.
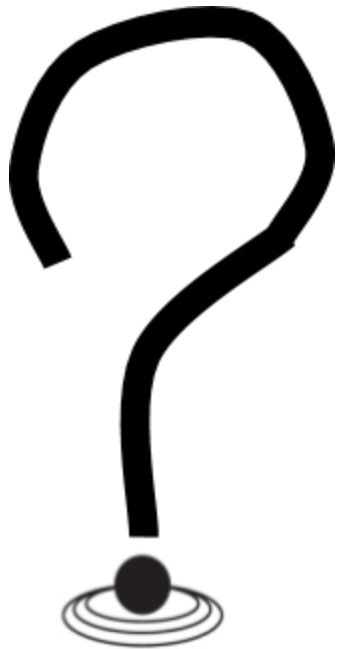
Adaptation

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Ending Question:

If we embrace artificial intelligence, how will this impact how I learn academic information and life skills in school, at home, and in the world?

REALLY BIG IDEA CHART

You also need to either create a google drawing OR print out and hand-write the REALLY BIG IDEA CHART, with your generalizations in the columns, your driving question in the triangle, and your ending question on the bottom. This goes on the BACK of your tri-fold board. It is a rough outline of your entire project. This takes about 10 minutes to do. Please make the size of the really big idea chart below bigger.

How will human intellect adapt overtime
due to the contributions of artificial
intelligence?

Will ethics
change how AI
impacts
humanity?

What patterns can
be seen when tech
is inserted into our
lives?

How does the
ongoing
contribution of AI
affect humanity?

If we embrace this kind of technology, how will this impact someone's ordinary life, like us, with AI?

BOARD TAG

Back label – Please fill this out and glue it to the back of your trifold board when you turn it in on May 8th in Room 310 (the media room) or Room 308 (Ms. Park's classroom).

GLUE THIS "BOARD TAG" ON THE BACK OF YOUR BOARD!

Driving Question: How will human intellect adapt overtime due to the contributions of artificial intelligence?
Names of student researchers: Michael Martinez, Ricardo Canales, and Justin Flores

Grade level: 8th	**Mentor teacher:** Ms. Park

Special notes about handling and or placement or presentation space needed:

Student-led Research Results

We decided to interview Avrim Blum, who's a professor a Carnegie Mellon University, which has been a leading university in AI research.

Question	Response
What does AI have to give to humanity?	"Let me give a few answers here. First, my own research is on the mathematical side of AI. That is, I don't build robots or apps that answer questions, but I try to understand the principles behind tasks like learning, planning, and decision-making. What I believe this side of AI can offer humanity is a better understanding of ourselves. For instance, when you look at some topic in the news or some issue under debate, you usually combine different pieces of evidence into an overall opinion. That is also what AI systems have to do when trying to figure out what someone is asking them or in planning what to do next. So in designing computer algorithms for doing these tasks, we learn a bit about what intelligence means."

| | "Another thing AI can offer humanity is to help us make better decisions. Right now, for instance, Google and Wikipedia can offer a lot of information, but they don't synthesize it for us (and you need to know what to look for). AI of the future will be able to tell us "here are some reasonable options, and here are pros and cons of each".

"AI of the future will also help us as intelligent assistants. I think this can be especially helpful for people with disabilities." |
|---|---|
| *What do you think will happen as humans and AI merge in society?* | "I can see two main ways that humans and AI will merge. One is via virtual reality. Instead of there being lots of physical robots, people will instead put on headgear and interact with each other and with AI virtual robots. I think this can have both good sides and bad sides to it."

"Another way humans and AI will merge is as an extension of the smartphones we already have. Instead of us looking at a screen, the devices will |

	whisper in our ears or communicate directly to us via signals to our brains. For instance, when you meet someone, your device will remember what the person looks like and what they said. Later on, when you see the person again, it will remind you of when you saw them last and what you talked about."
Do you think the introduction of smarter AI will affect human intelligence?	"It's possible we may become lazier as we offload more thinking tasks to AI helpers. But I don't know if human intelligence will really change."
Do you think that with more types of AI coming	"I see both happening. In the same way that people are spending more and more time with their phones, people may spend more and more time interacting with AI rather than with each other. Also, as always with new technologies, there will be economic disruptions as old jobs and professions go away and

| **into people's lives, will people adapt negatively or positively, and why?** | new ones come on board."
 "But people will also adapt positively. I believe with powerful AI and information technologies, there will be more ways for regular people to take actions that make a positive difference in the world, and I expect people to take advantage of that. We all want to change the world for the better, and these technologies will make that easier for regular folks to do." |