



AI Ethics



AI Ethics

- AI ethics is a system of moral principles and techniques intended to inform the development and responsible use of artificial intelligence technology.
- As AI has become integral to products and services, organizations are starting to develop AI codes of ethics.



AI Ethics

Some ethical concerns are

- Moral issues
- Data privacy
- AI Bias
- AI Access

AI Ethics

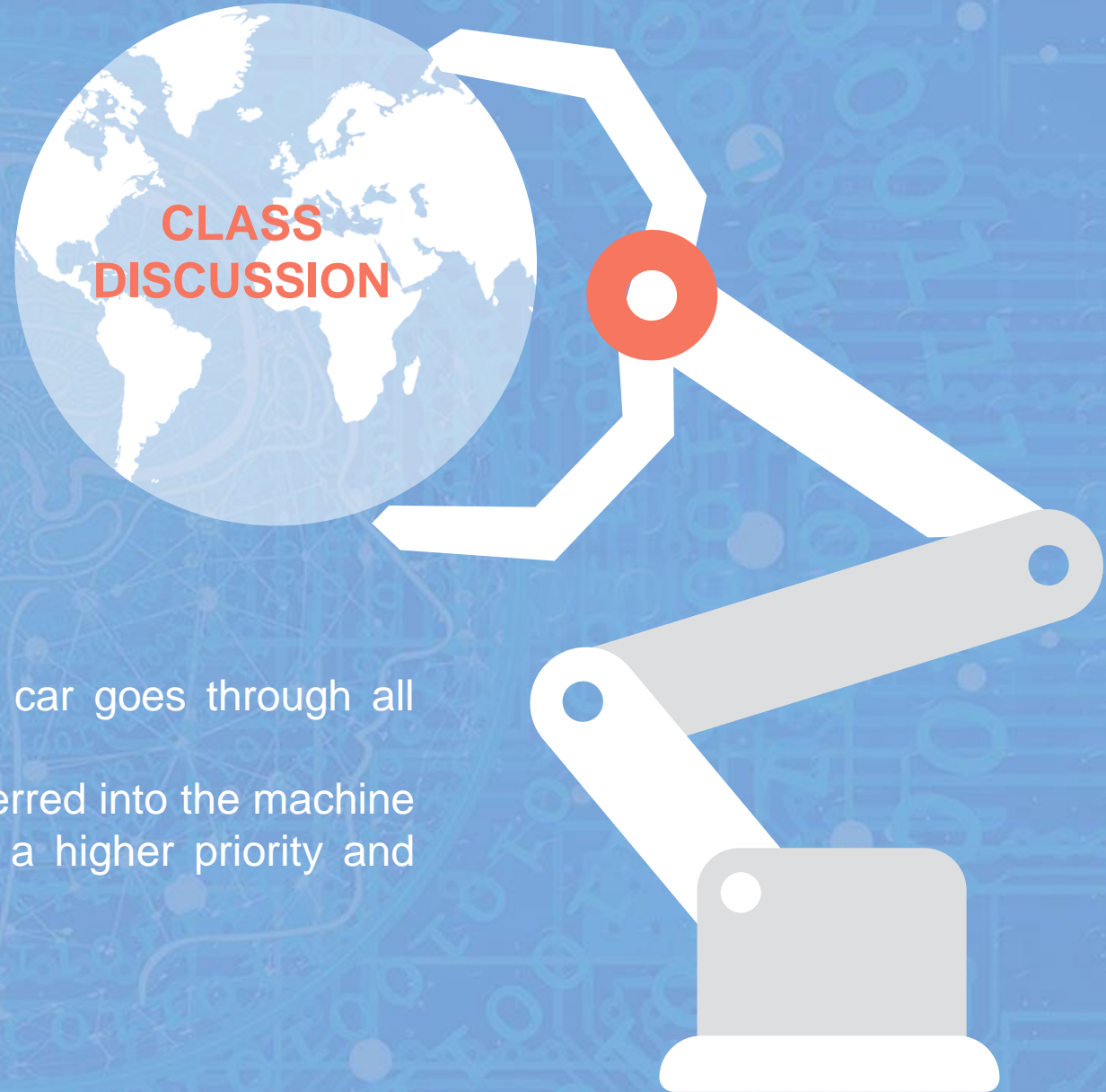
Moral Issues : Self-Driving Cars

Scenario 1:

Let us imagine that we are in year 2030. Self-Driving cars which are just a concept in today's time are now on roads. People like us are buying them for ease and are using it for our daily transits. Of-course because of all the features which this car has, it is expensive. Now, let us assume, one day your father is going to office in his self-driving car. He is sitting in the back seat as the car is driving itself. Suddenly, a small boy comes in front of this car. The incident was so sudden that the car is only able to make either of the two choices:

1. Go straight and hit the boy who has come in front of the car and injure him severely.
2. Take a sharp right turn to save the boy and smash the car into a metal pole thus damaging the car as well as injuring the person sitting in it.

If you were in the place of this developer and if there was no other alternative to the situation, which one of the two would you prioritise and why?



- ❖ We need to understand that the developer of the car goes through all such dilemmas while developing the car's algorithm.
- ❖ Thus, here the morality of the developer gets transferred into the machine as what according to him/her is right would have a higher priority and hence would be the selection made by the machine



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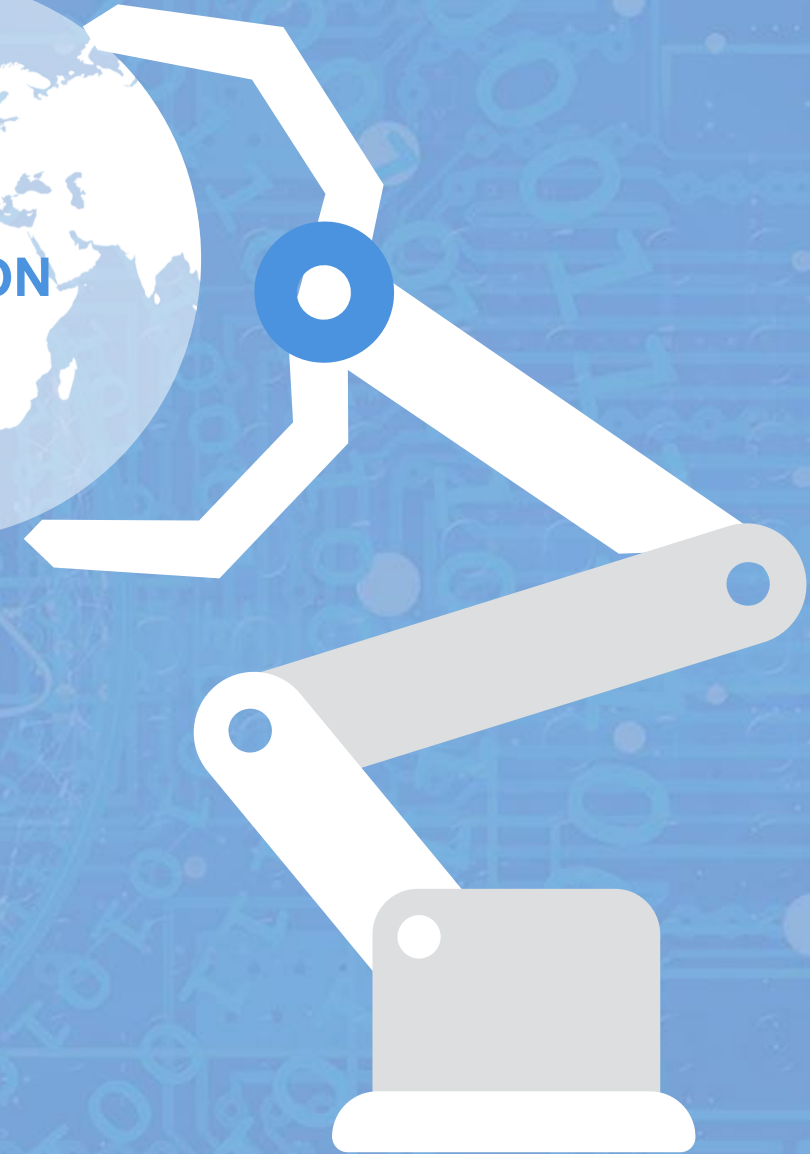
Moral Issues : Self-Driving Cars

Scenario 2:

Let us now assume that the car has hit the boy who came in front of it. Considering this as an accident, who should be held responsible for it? Why?

1. The person who bought this car
2. The Manufacturing Company
3. The developer who developed the car's algorithm
4. The boy who came in front of the car and got severely injured

- ❖ Here, the choices might differ from person to person and one must understand that nobody is wrong in this case.
- ❖ Every person has a different perspective and hence he/she takes decisions according to their moralities.





AI Ethics

Data Privacy

- The world of Artificial Intelligence revolves around Data.
- Every company whether small or big is mining data from as many sources as possible.
- More than 70% of the data collected till now has been collected in the last 3 years which shows how important data has become in recent times.
- → Where do we collect data from?
- → Why do we need to collect data?

- One of the major sources of data for many major companies is the device which all of us have in our hands all the time: **Smartphones.**
- Smartphones have nowadays become an integral part of our lives. Most of us use smartphones more than we interact with people around us. Smartphones in today's era provide us with a lot of facilities and features which have made our lives easier.

- **EXAMPLE:**

Feeling hungry? Order food online. Want to shop but don't have time to go out? Go shopping online. From booking tickets to watching our favourite shows, everything is available in this one small box loaded with technology.



AI Ethics

Data Privacy

- Another feature of smartphones nowadays is customized recommendations and notifications according to our choices.

Some observations

Scenario 1

- You are talking to your friend on a mobile network or on WhatsApp.
- You tell your friend that you wish to buy new shoes.
- You discuss about shoes and that is it.
- After some time, the online shopping websites start giving you notifications to buy shoes! They start recommending some of their products and urge you to you buy some.



AI Ethics

Data Privacy

Scenario 2

- You search on Google for a trip to Kerala or any other destination.
- All the apps on your phone which support advertisements starts sending messages about packages that you can buy for the trip.



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Data Privacy

Scenario 3

- Even when you are not using your phone
- Talking to a person face-to-face about a book you've read recently
- The phone is kept in a locked mode nearby
- The phone will end up giving notifications about similar books or messages about the same book once you operate it.



AI Ethics

Data Privacy

- We are giving permissions to access our phone's data in different ways.
- Hence every now and then, the app has the permission to access various sensors which are there in your smartphone and gather data about you and your surroundings.
- We forget that the smartphone which we use is a box full of sensors which are powered all the time while the phone is switched on.
- We need to understand that the data which is collected by various applications is ethical as the smartphone users agree to it. (by clicking on allow when it asks for permission and by agreeing to all the terms and conditions).
- But at the same time if one does not want to share his/her data with anyone, he/she can opt for alternative applications which are of similar usage and keep your data private.



AI Ethics

AI Bias:

- Everyone has a bias of their own no matter how much one tries to be unbiased, we in some way or the other have our own biases even towards smaller things.
- Biases are not negative all the time. Sometimes, it is required to have a bias to control a situation and keep things working.
- When we talk about a machine, we know that it is artificial and cannot think on its own.
- It can have intelligence, but we cannot expect a machine to have any biases of its own. Any bias can transfer from the developer to the machine while the algorithm is being developed. Let us look at some of the examples:
 - 1. Majorly, all the virtual assistants have a female voice. Why?
 - 2. If you search on Google for salons, the first few searches are mostly for female salons, Why?
- Various other biases are also found in various systems which are not thought up by the machine but have got transferred from the developer intentionally or unintentionally.

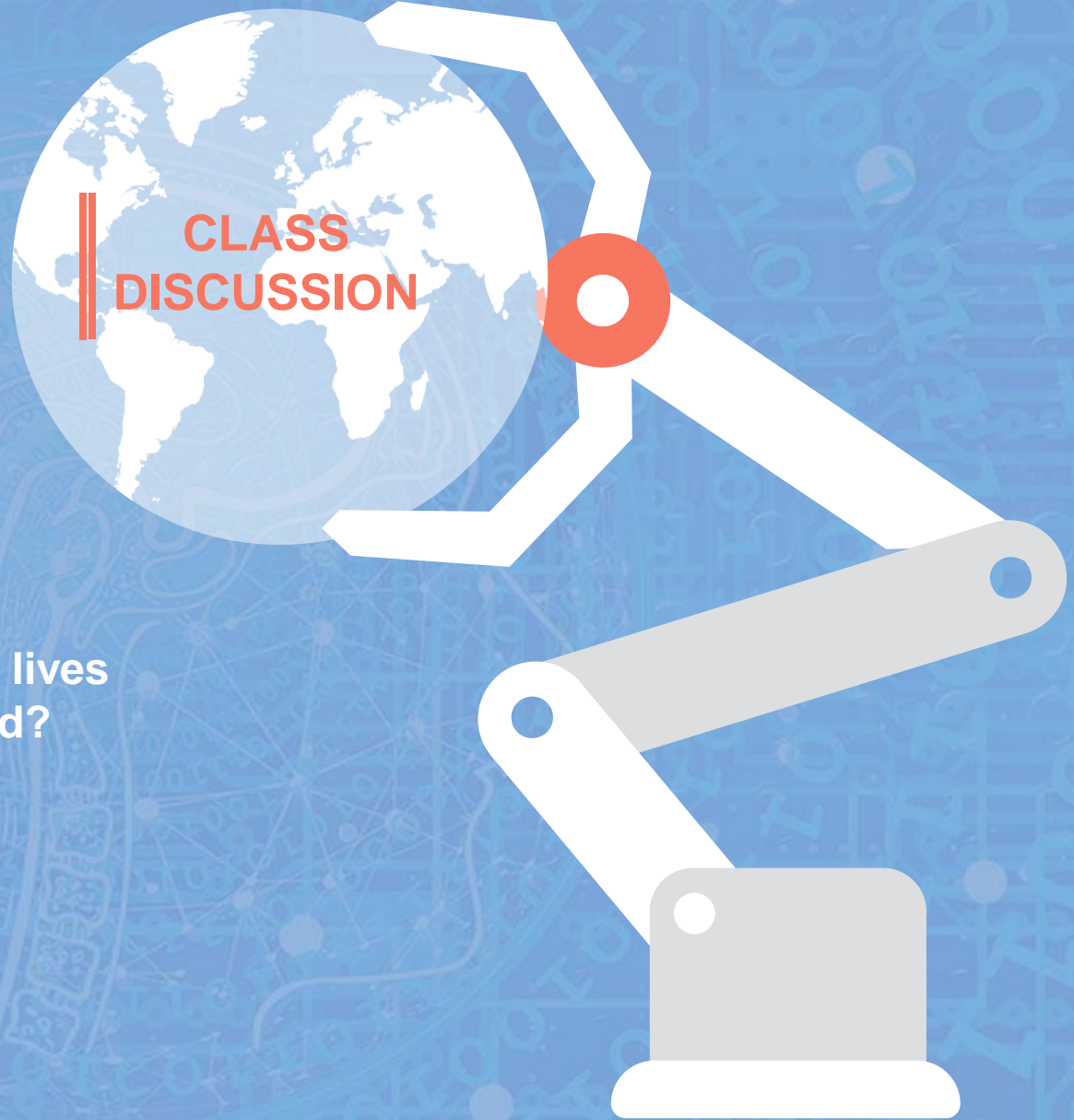


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AI Access

- Since Artificial Intelligence is still a budding technology, not everyone has the opportunity to access it.
- The people who can afford AI enabled devices make the most of it while others who cannot are left behind.
- Because of this, a gap has emerged between these two classes of people and it gets widened with the rapid advancement of technology.
- **AI creates unemployment**
 - AI is making people's lives easier.
 - In no time AI will manage to be able to do all the laborious tasks which we humans have been doing since long.
 - Maybe in the coming years, AI enabled machines will replace all the people who work as labourers.
 - This may start an era of mass unemployment where people having little or no skills may be left without jobs and others who keep up with their skills according to what is required, will flourish.

1. Should AI replace laborious jobs? Is there an alternative for major unemployment?



2. Should AI not replace laborious jobs? Will the lives of people improve if they keep on being unskilled?



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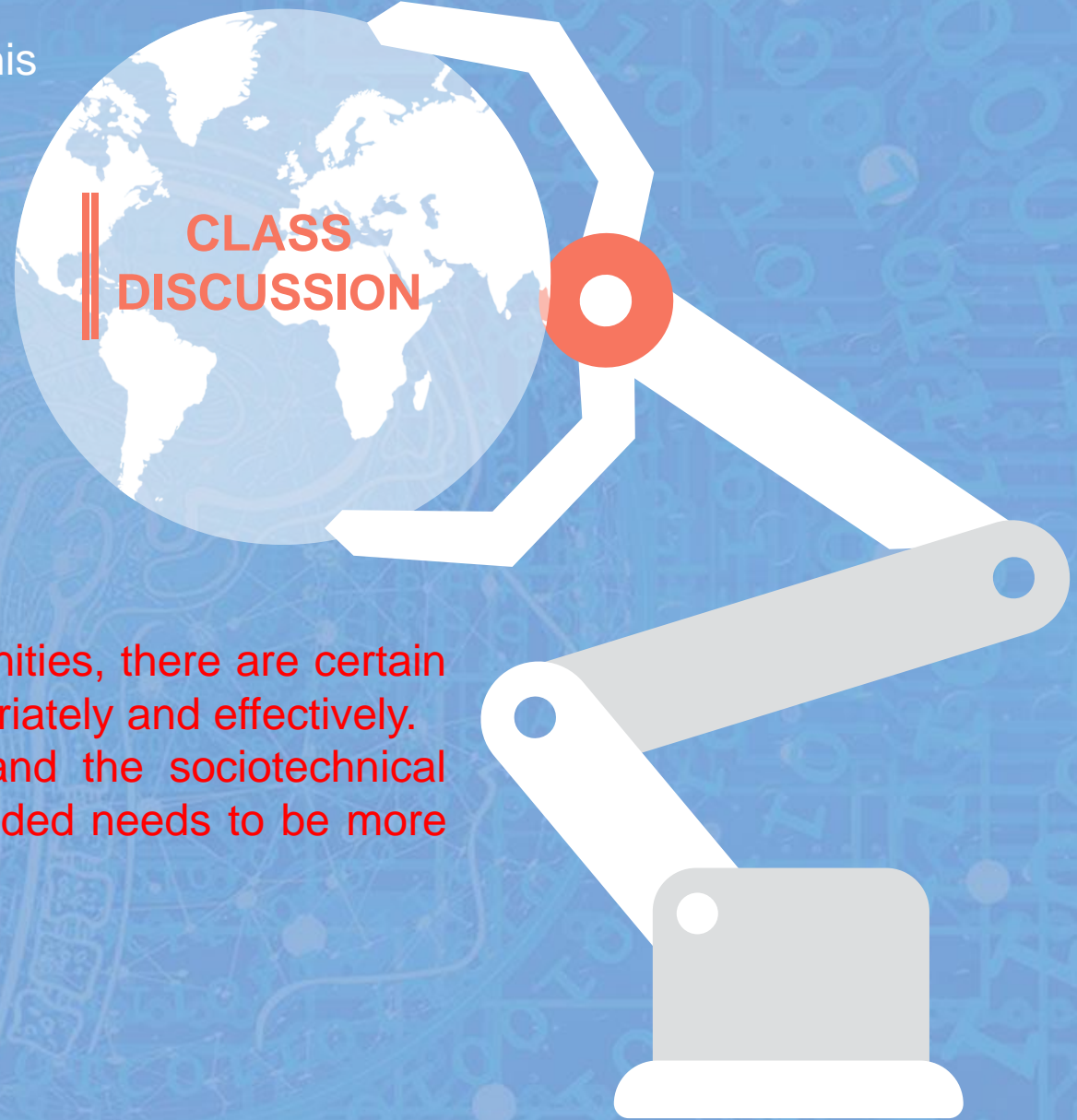
AI for kids

- Kids nowadays are smart enough to understand technology from a very early age.
- As their thinking capabilities increase, they start becoming techno-savvy and eventually they learn everything more easily than an adult.
- But should technology be given to children so young?

Scenario:

- ❖ A young boy in class 3 has got some Maths homework to finish. He is sitting at a table which has the Google chat bot - Alexa on it, and he is struggling with his homework. Soon, he starts asking Alexa to answer all his questions. Alexa replies with answers and the boy simply writes them down in his notebook
 - On one hand where it is good that the boy knows how to use technology effectively.
 - On the other hand he uses it to complete his homework without really learning anything since he is not applying his brain to solve the Math problems.
 - So, while he is smart, he might not be getting educated properly.

Is it ethical to let the boy use technology to help in this manner?



Conclusion

- Despite AI's promises to bring forth new opportunities, there are certain associated risks that need to be mitigated appropriately and effectively.
- To give a better perspective, the ecosystem and the sociotechnical environment in which the AI systems are embedded needs to be more trustworthy.