

ASSIGNMENT 1

Question 1: How and where is facebook using Machine Learning to improve user experience?

Answer: Following are the areas where Facebook uses Machine Learning to improve user experience;

- ❑ Advertisement: The ads that are shown at our news feed are specific to us i.e. every user is shown different ads based on their search history. This is done with the help of artificial neural networks, our search history is fed in and then Facebook shows related ads.
For example, if I like or search any product of brand XYZ then I will be shown ads about more products of brand XYZ and related products.
- ❑ Translation: The captions and comments we write in any language can be translated into any other language if we click on “See Translation”. Facebook uses machine learning i.e. all languages are fed in and translated result is then generated after user request. This helps in connecting the users from the whole world.
- ❑ People you may know: There is a list of people, I may know, displayed in the news feed. This list is shown with the help of machine learning. The algorithm analyzes the mutual friends of the user and the people user might know, or if both work at same place or study at same institute.
- ❑ Pages you may like: The machine learning algorithm analyzes the pages and content liked by the user and then suggests the pages the user might like.
For example, if I like comedy content then Facebook will suggest comedy pages or the pages similar to the ones I have liked.

Question 2: How do you think deep learning can change the world and do wonders?

Answer: Deep learning can revolutionize the world. I think that can have a positive impact but a negative one too. If we talk about **positive change**; the robots and machines will start thinking on their own making better decisions than human beings. For example, there will be **housekeeping robots** working on their own without our instructions. There will be no need of servants and charwomen. There will be no road traffic but **air traffic**. Aeroplanes will become very common and less expensive and will replace cars. There will be **robot surgeons** that will perform complex surgeries very easily and fast as compared to human surgeons. The deep learning algorithm would be used to **diagnose complex diseases** and suggest best treatment for it. Moreover, deep learning algorithm would be used to **find cure of incurable diseases such as Corona Virus** prevailing in the whole world today. The **artificial organs** will become very common too.

If we talk about **negative change**; the robots and machines will **take over human jobs**, what will humans do after losing jobs? I think hacking will become very common which is a threat to

human privacy. More **disastrous weapons** will be made and there will be a **negative use** of **advance nuclear science.**

At the same time, I think that Deep learning has **more benefits and convenience** to human beings as compared to its drawbacks.

Question 3: What is your dream AI project that can become into reality and can have a commercial value? Justify your answer.

Answer:

Dream Project: My dream AI project is to develop a sensor or a device which uses a deep learning algorithm. The device will be fixed in all kind of vehicles. When the vehicle will face any accident, the device will automatically alert the ambulance and will also send location of the accident spot. In case of fire, it will also alert the firefighters and will send the accident location too.

Commercial Value: When any road accident takes place, no one calls for the ambulance, instead everyone is busy in capturing photos and videos. Consequently, the victim dies of not getting treatment as early as possible. So with the help of this device, ambulance will reach the accident spot at its earliest without any human alert and there will be less chances of death. Of course every person will take this safety measure, so will get their vehicles fixed with this device and hence this project will have a commercial value.