



REPORT ON TRAINING PROGRAMME ON ARTIFICIAL INTELLIGENCE

Date: 30 April 2019 – 02 May 2019

Organised by: CBSE in association with Intel

Attended by: Ms Asha Menon, PRT Computer Sc

BBPS, Noida is one of the privileged schools, out of the 500 to be selected for the implementation of Artificial Intelligence (AI) curriculum in the session 2019-20. The three days training programme was well organised and structured by the CBSE and the Intel Team. The programme aimed at facilitator training for the Skill subject “Artificial Intelligence” introduced by the CBSE in the schools.

DAY 1

SESSION I: Mr Biswajit Saha, Director(Training & Skill Education), CBSE welcomed all the teachers and explained the need of the AI Curriculum in the present educational landscape and how together we can make our students AI Ready! He insisted that the programme intended to bring out the best in the curriculum and encouraged the teachers to be interactive in the three day training.



SESSION II: Ms Shweta Khurana, Director, Corporate Affairs, Intel India explained the objective of the course and the expected learning outcomes. It was indeed a proud moment to know that CBSE had taken this challenge of introducing AI to the young minds and the vision is to take up Artificial Intelligence (AI) in classes XI and XII as well.



SESSION III: A demo quiz on Artificial Intelligence was played by all of the participants online using Kahoot.

Ms Shayda Rana, Senior Faculty at Army Welfare Education Society interestingly defined the world of AI and the future with Internet Of Things(IOT). She elaborated the need of keeping pace with the changing trends and the importance of bringing in this curriculum in the school level. It was a wonderful session as this session set the momentum towards AI.

SESSION IV: All the activities were group activities and the Intel team emphasised that we should practice the same back in our schools as it will develop collaboration skills and team work. We played three different games that touched 3 domains of AI.

- **Mystery Animal (Natural Language Processing (NLP))**
- **Emoji Scavenger hunt (Computer Vision)**
- **Rock Paper Scissor (Data)**

These were very engrossing games and it was fun to play with AI. Experiencing the three AI domains in a gaming interface was indeed a great way to introduce the domains to the students too.

SESSION V: All the participants were asked to write a letter to their future self. This activity successfully captured the reflections and expectations of the participants. A video of a smart home and smart city was showcased which threw light on our near future and Important space of IOT in our lives. A discussion on features of Smart Cities was also conducted.

DAY II

SESSION I: The day started with the participants drawing the floor plan of their dream home incorporating the concept of Smart Home into it. All the participants created different dream home plans with all sorts of visualizations and each team had to present their dream home floor plan to all others present.

SESSION II: This session was very interesting as we were asked to create an interactive story using story speaker, an add-on plug in available with google docs. The teams were given a task of writing a walkthrough of their dream home plan using story speaker. It was like creating a Chat bot. The exposure to different games and tools was an enriching experience.

SESSION III: All the participants played Go-Goals Board Game that is based on SDG's. It was fun as the teams were asked to cutout and prepare dice and tokens for themselves and then play the game.

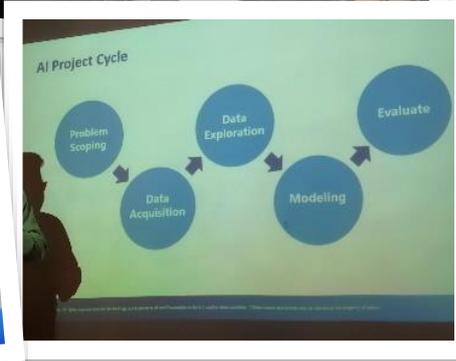
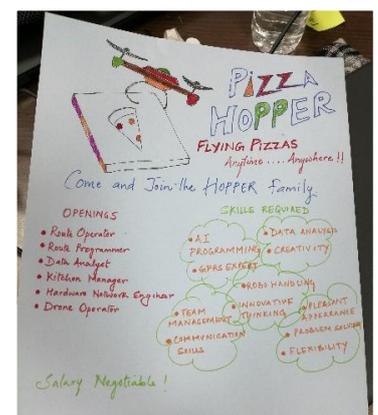
SESSION IV: the participants were exposed to current AI implementations and future possibilities. We could also figure out the difference in skill-sets required for AI jobs in the present and we were made aware of the jobs of the future. We all participated in another interesting activity in which we had to design a Job Advertisement Poster for a job opening 10 years later. Each team presented their advertisements with lots of enthusiasm.

SESSION V: A discussion on the AI Ethics was done. This was an interactive session regarding AI Bias, Access and Privacy. All the participants participated in the Balloon Debate, the topic being AI: Boon or Bane.

SESSION VI: The AI Project Cycle was introduced to one and all. The first step – Problem Scoping was discussed at length, introducing the 4W's Problem Canvas and Problem Statement Template. Two problems were taken as examples and both triggered thinking in sync with the 4W's. The second step of the Project Cycle, Data Acquisition was also introduced. It was insisted that the data acquired should be only from reliable sources.

DAY III

SESSION I: The session started with Data features extraction, i.e, finding out the data features for the problem scoped by the participants the previous day. System maps were introduced and we all made our system maps using loopy, an open source animated tool. The simulation and the understanding of the data features for the problem was well established through these maps.

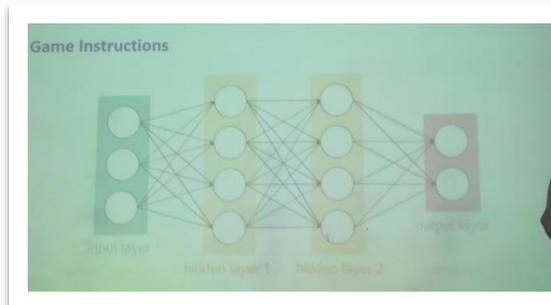


SESSION II: The third step – Data Exploration was discussed. Various types of graphical representations for the data was explained. The teams were asked to visualize the data features using various graphical representations and finding out trends followed by data from them.

SESSION III: Basic concepts of AI (Artificial Intelligence), ML (Machine Learning) and DL (Deep Learning) were differentiated. Introduction to modelling stage and various approaches to create an AI Model was taken up. Drawing a Decision Tree on the basis of the data provided was discussed and done as a team.

SESSION IV: Activity – Pixel It was done to understand how computers see and classify images. It was fun as the entire team was busy colouring and comparing their pixels.

SESSION V: The concept of Neural Networks and various types of AI models were discussed. An analogy between Artificial Neural Network and Human Nervous System was established through a game. The game was interesting as it clearly showed the working of the artificial neural networks and how the hidden layers work.



SESSION VI: Few games were discussed on Python. It was insisted that Python be introduced to the students in a gamified manner. The team assured that all the schools will receive the Python module soon.

The three day training ended with Ms Anita Karval, IAS, Chairperson CBSE addressing the gathering and explaining the need of the AI Curriculum and how it will help in shaping better citizens. She motivated the teachers to take up this challenge with utmost zeal and enthusiasm.



The Artificial Intelligence Curriculum aims at developing the learner's mind set and skills set towards Artificial Intelligence and how it is understood and applied. The important principle that Artificial Intelligence embraces is holistic inclusive and progressive development in immersive ways by problem solving, creative thinking and critically analysing data. **Its time to make our students AI Ready!**

Reported by Ms Asha Menon, PRT Computer Science