

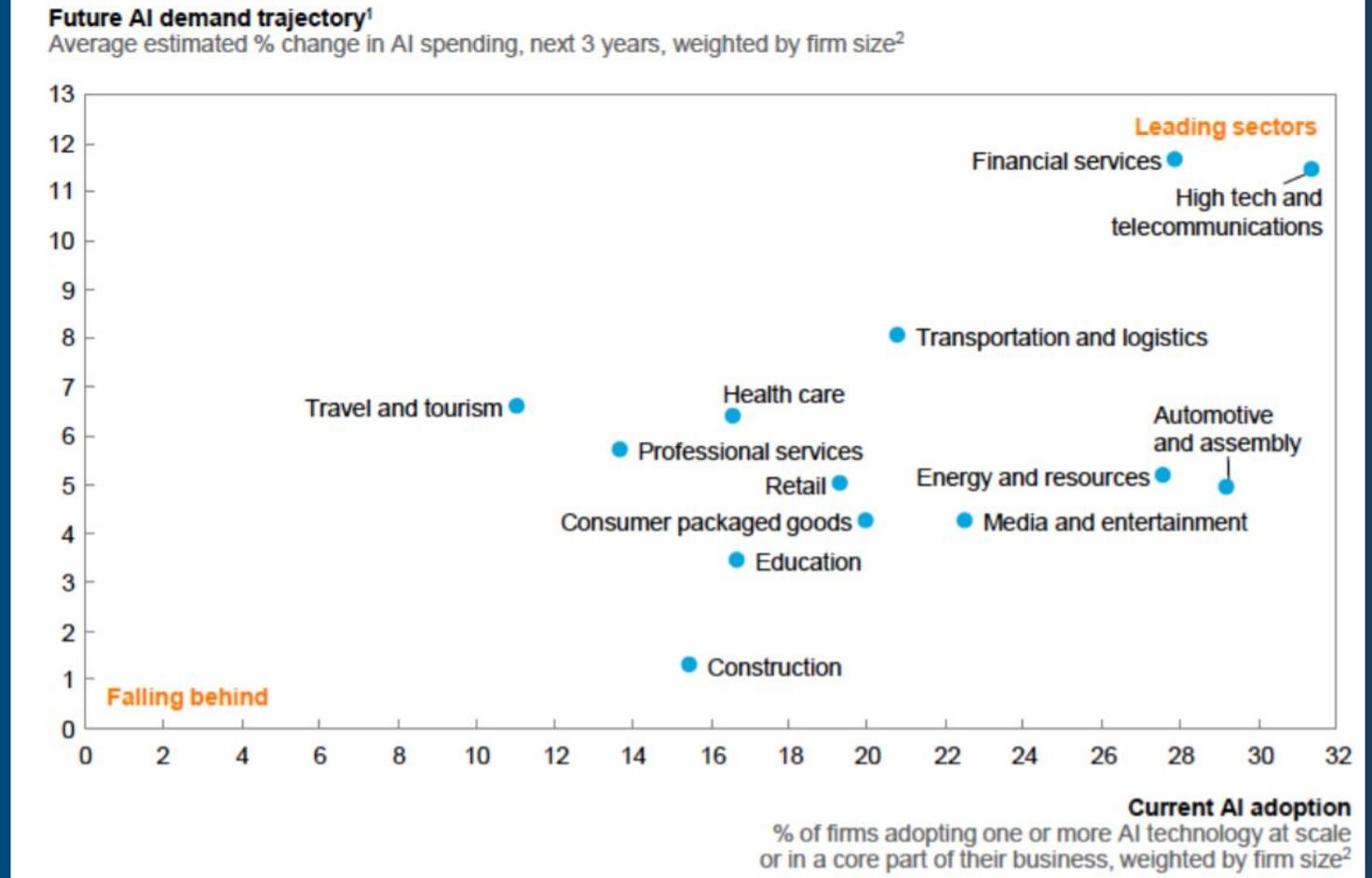
# AI and Education

Dr Biswajit Saha, Director CBSE

# National Strategy for Artificial Intelligence - 2018

The National Strategy for Artificial Intelligence (NSAI) has successfully brought AI in the center-stage of the reform agenda of the Government by underlining its potential to improve outcomes in sectors such as healthcare, agriculture, or education

**Figure 6:** Current AI adoption and future AI investments by sector



Source: Niti  
Aayog

# National Education Policy - 2020

## 23.8

AI's disruptive potential in the workplace is clear, and the education system should be poised to respond quickly.

## 4.25

Mathematics and computational thinking will be given increased emphasis throughout the school years. Activities involving coding will be introduced in Middle Stage.

## 23.12

As disruptive technologies emerge, schooling and continuing education will assist in raising the general awareness and will address related issues.

## 23.13

Data is a key fuel for AI-based technologies, and it is critical to raise awareness on issues of privacy, laws, and standards associated, it is also necessary to highlight ethical issues surrounding the development and deployment of AI-based technologies. Education will play a key role in these awareness raising effort.

# Building AI readiness is now mission critical

- 65% of children who entered primary school in 2016 will end up working in jobs that don't exist today
- By 2030, more than a third of core skillsets of most occupations will be made up new skills related to emerging technologies



# The Rise of New Job Categories with AI



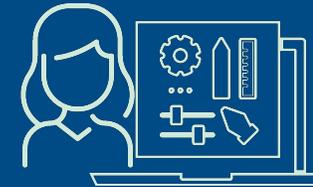
## Trainers

- NLP Trainer
- Language Translators
- Machine Trainer on Human Behaviour



## Explainers

- Transparency Analyst
- Algorithm Forensic Analyst
- Explainability Strategist



## Sustainers

- Context Designer
- AI Safety Engineers
- Ethics Compliance Managers

AI Readiness for new “Human Machine Partnership” and Human Centric/Responsible AI

# Importance of AI – need of the hour



A skilled and competent workforce is the foundation for growth of any nation and industries, enabling the economy to adjust to disruptions caused in AI world.



An AI driven economy will require a new approach to a nation's education system including ways to empower larger non-technical audiences with AI social and technical skills for real world applications.



There is an urgent need for demystifying AI through appropriate AI readiness programs for current and future workforces

AI is no longer a notion but is the reality it's important that our educational systems expose students to updated technologies and their usage.

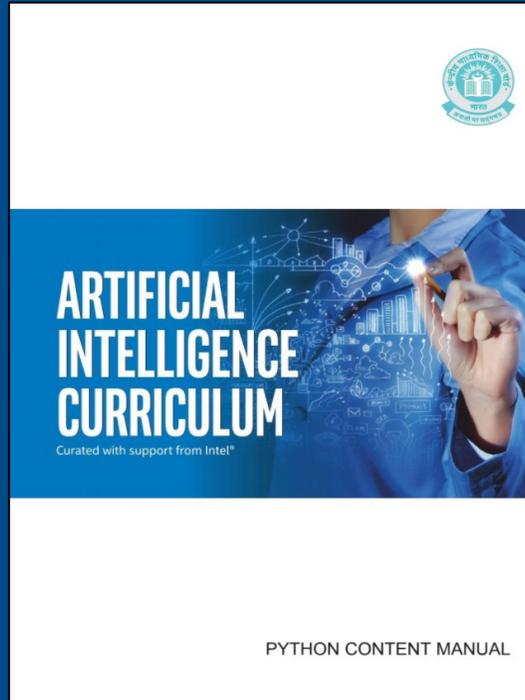
# How are we building an AI –Ready Generation

# AI For All – world's largest public awareness program on AI

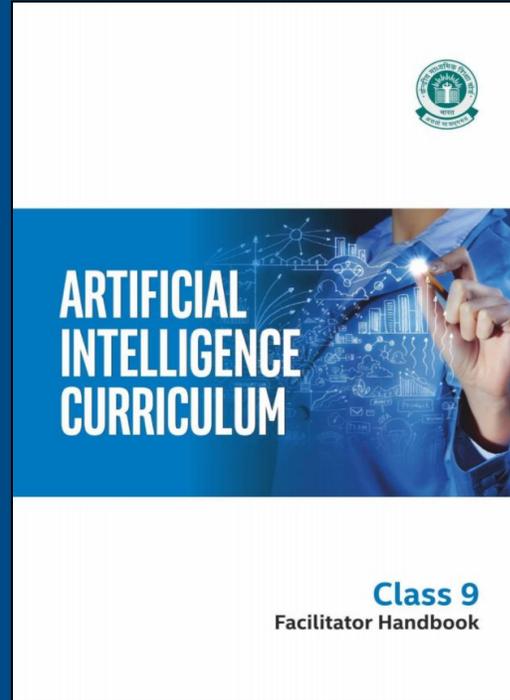


Launched by the honourable Prime Minister on July 29, 2021

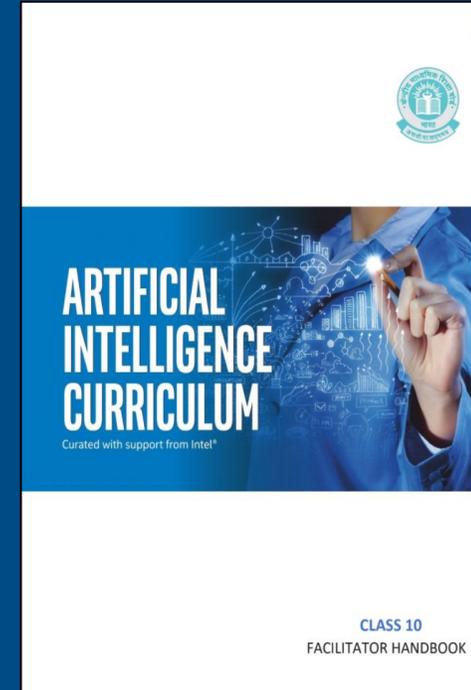
# AI Education – AI as a skill subject



Class 9 Python  
Content Manual



Class 9  
Facilitator  
Handbook



Class 10  
Facilitator  
Handbook

<http://cbseacademic.nic.in/ai.html>

[http://www.cbseacademic.nic.in/web\\_material/Curriculum21/publication/srsec/AI\\_ClassXII\\_Study\\_materials.pdf](http://www.cbseacademic.nic.in/web_material/Curriculum21/publication/srsec/AI_ClassXII_Study_materials.pdf)



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**ARTIFICIAL INTELLIGENCE: STUDY MATERIAL**

**CLASS XI**

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**LEVEL 1: AI INFORMED (UNIT 1 – UNIT 5)**



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**ARTIFICIAL INTELLIGENCE: STUDY MATERIAL**

**CLASS XII**

## AI PROJECT LOGBOOK

Resource for Students

*(Adapted from "IBM EdTech Youth Challenge – Project Logbook" developed by IBM in collaboration with Macquarie University, Australia and Australian Museum)*

### KEY PARTNERS



LEARNING LINKS  
FOUNDATION



1M 1B  
1 MILLION 1 BILLION  
Activating leaders,  
Empowering communities

edunet  
foundation

### GLOBAL PARTNERS



MACQUARIE  
University



AUSTRALIAN MUSEUM

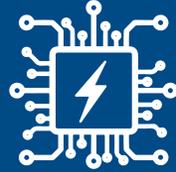
# AI Education impact snapshot - Patents filed by students



## AI Domain : Data Science

**EPP Location Detector**  
Ayush Gupta & Pranjal Rastogi

Predicting suitable locations for sustainable electronic power plants intelligently.



## AI Domain : Data Science

**Eco Volt**  
Shubankar Gupta

An AI-based model to monitor the electricity usage of a household to reduce consumption.



## AI Domain : Computer Vision

**Visual Assistant for Blind**  
Ashwin JB

A walking stick equipped with a camera to aid blind people in their day to day activities



## AI Domain : Computer Vision & NLP

**AI Autism Assistant**  
Rishabh Bezbaura & Abhrooneel Ghosh

An AI enabled assistant to support Autistic patients overcome social and communication challenges by helping them understand the sentiments from a conversation in real time, leading to better interactions

# AI in Education – pedagogical integration



**ARTIFICIAL INTELLIGENCE  
INTEGRATION IN SCIENCE**



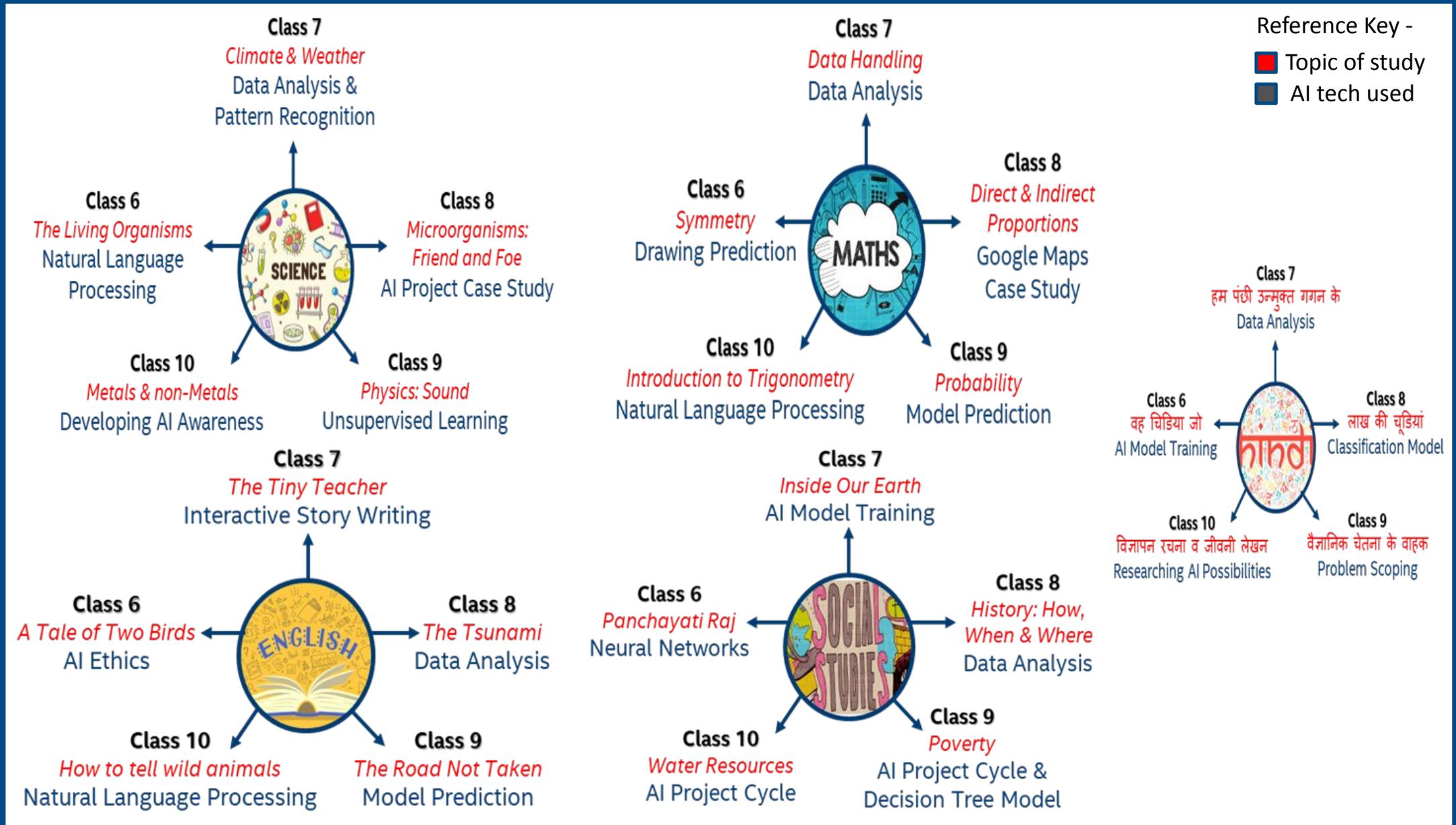
**ARTIFICIAL INTELLIGENCE  
INTEGRATION IN MATHEMATICS**



**ARTIFICIAL INTELLIGENCE  
INTEGRATION IN ENGLISH**

<http://cbseacademic.nic.in/ai.html>

# AI in Education : Lesson plans available in Diksha portal



Thanks

[dirtraining.cbse@gmail.com](mailto:dirtraining.cbse@gmail.com)