

PROFESSIONAL PROGRAMME

ARTIFICIAL INTELLIGENCE, DATA ANALYTICS AND CYBER SECURITY – LAWS & PRACTICE

Artificial Intelligence (AI) to be a kinetic enabler for the growth of our digital economy, investments, and jobs. AI refers to the ability of machines to perform cognitive tasks like thinking, perceiving, learning, problem solving and decision making. Initially conceived as a technology that could mimic human intelligence, AI has evolved in ways that far exceed its original conception. With incredible advances made in data collection, processing and computation power, intelligent systems can now be deployed to take over a variety of tasks, enable connectivity and enhance productivity. As AI's capabilities have dramatically expanded, so have its utility in a growing number of fields.

AI is emerging as a new factor of production, augmenting the traditional factors of production viz. labour, capital and innovation and technological changes captured in total factor productivity. AI has the potential to overcome the physical limitations of capital and labour, and open up new sources of value and growth. From an economic impact perspective, AI has the potential to drive growth through enabling: (a) intelligent automation i.e. ability to automate complex physical world tasks that require adaptability and agility across industries, (b) labour and capital augmentation: enabling humans to focus on parts of their role that add the most value, complementing human capabilities and improving capital efficiency, and (c) innovation diffusion i.e. propelling innovations as it diffuses through the economy. AI innovations in one sector will have positive consequences in another, as industry sectors are interdependent based on value chain. Economic value is expected to be created from the new goods, services and innovations that AI will enable.

On the other hand data is one of the primary drivers of AI solutions, and thus appropriate handling of data, ensuring privacy and security is of prime importance. Challenges include data usage without consent, risk of identification of individuals through data, data selection bias and the resulting discrimination of AI models, and asymmetry in data aggregation.

To ensure that Internet in India is Open, Safe, Trusted and Accountable, the Central Government, in exercise of powers conferred by the Information Technology Act, 2000 ("IT Act"), has notified the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 ("IT Rules, 2021"). The rules cast specific obligation on intermediaries vis-à-vis what kind of information is to be hosted, displayed, uploaded, published, transmitted, stored or shared. Intermediaries are also required to remove any content violative of any law for the time being in force as and when brought to their knowledge either through a court order or through a notice by appropriate government or its authorised agency.

In the light of above developments, this study material has been prepared to provide an understanding of AI, Data Protection and cyber security legislations which have direct bearing on the functioning of companies. The study material has been divided into three parts consisting of twenty study lessons. Part-I dealing with Legal & Compliance Perspective consists of Study Lessons 1 to 6, whereas Part-II dealing with Technological perspective consists of Study Lessons 7 to 15.

This study material has been published to aid the students in preparing for the Artificial Intelligence, Data Analytics and Cyber Security – Laws & Practice Elective paper of the CS Professional Programme. It has been prepared to provide basic understanding of some of the Artificial Intelligence, Data Analytics and Cyber Security legislations thereunder, which have a bearing on the conduct of corporate affairs. It is part of the educational kit and takes the students step by step through each phase of preparation stressing key concepts, principle, pointers and procedures.

The legislative changes made upto May 31, 2025 have been incorporated in the study material. In addition to Study Material students are advised to refer to the updations at the Regulator's website, supplements relevant for the subject issued by ICSI and ICSI Journal Chartered Secretary and other publications. Specifically, **students are advised to read "Student Company Secretary" e-Journal which covers regulatory and other relevant developments relating to the subject**, which is available at academic portal <https://www.icsi.edu/student-n/academic-portal/>. In the event of any doubt, students may contact the Directorate of Academics at academics@icsi.edu.

The amendments to law made upto 31st May of the Calendar Year for December Examinations and upto 30th November of the previous Calendar Year for June Examinations shall be applicable.

Although due care has been taken in publishing this study material, the possibility of errors, missions and /or discrepancies cannot be rules out. This publication is released with an understanding that the Institute shall not be responsible for any errors, omissions and/or discrepancies or any action taken in that behalf.