



INDIAN INSTITUTE OF MANAGEMENT CALCUTTA



INDUSTRY 4.0 & THE INDISPENSABILITY OF DIGITAL ETHICS: AN INTRODUCTION FOR MANAGERS



Programme Director: Prof. Nisigandha Bhuyan



Programme Dates: August 05 - 07, 2024



Programme Venue: MDC, IIM Calcutta

INTRODUCTION

Big Data and machine learning, or the predictive function of data, have transformed business operations in hitherto unimaginable ways. Resource management and allocation have become far more efficient, and processes such as the allocation of delivery agents in the unicorn firms of the ever-expanding gig economy, selection of suitable candidates for jobs, bank credit, insurance and targeted digital marketing all rely on data and algorithmic predictions today. As a consequence, businesses cannot but adapt themselves to the Infosphere wherein digital and physical processes are integrated.

Businesses in the near future will be hybrids. Simultaneous with the increasing reliance of business on algorithmic decision-making is the emergence of ethical concerns around AI. Acute problems such as data privacy, consumer surveillance, algorithmic biases, AI autonomy versus human control, lack of AI transparency and accountability have expanded at an alarming pace. Businesses need to address these ethical problems in their AI governance strategies and mechanisms. The banking sector, for instance, must pay attention to safeguarding data privacy in order to avoid financial frauds through the misuse of customer data. Again, when the human resource department of a firm delegates the work of shortlisting of suitable candidates for a job interview, it must retain considerable autonomy and control to ascertain that human biases have not crept into the algorithmic prediction function. At the other end of the spectrum, problems associated with Blue-Washing are also on the rise. Blue-washing refers to inadequate and toothless AI governance frameworks developed by firms to come across as having ethical data management mechanisms.

The objective of this MDP is to introduce managers to the need for digital ethics, governance and regulations. It will help them make sense of some of the most influential ethical AI frameworks available today, such as the EU's Ethics Guidelines for Trustworthy AI, as well as regulations such as the EU's GDPR and India's Digital Data Protection Bill, 2023. This MDP has twin goals: the first objective is to enable managers to attain the required conceptual clarity on issues such as the distinction between algorithm and artificial intelligence, the meaning and scope of terms such as data privacy, data fiduciary, data principal, data and AI governance frameworks, digital accountability, transparency, blue-washing and AI autonomy vs. human meta-autonomy. The second objective is to ensure that managers become knowledgeable about the latest AI governance regulations as well as ethical guidelines for an improved handling of data and machine-learning processes.



PEDAGOGY

The teaching component of the sessions will have two components: the specific conceptual issue or problem which need demystification and clarification, together with case studies to illustrate each of the concepts. Additionally, there will be classroom discussions wherein participant managers can enrich the session by contributing their own insights and experience. Group presentations, debates, simulations of ethical problems associated with data and AI management will also be an integral part of the programme to generate more substantial and impactful engagement with the real-world concerns of managers. The aim is to enable participants to build a personal roadmap of the ethical, regulatory and governance as well as conceptual issues and concerns associated with data and AI management.



WHO MAY ATTEND

Digital technological innovation is taking place at an astoundingly fast pace; new concepts are emerging and so are ethical concerns associated with these concepts and technologies. This management development programme is aimed at those managers and business professionals who seek to understand the basic conceptual foundations of ethical concerns related to data and AI governance mechanisms and wish to adapt their businesses to the evolving national and international governance and regulatory frameworks for ethical AI and data management. The knowledge of these frameworks can in turn help businesses develop more sustainable data management strategies.



KEY TOPICS

Ethical AI and data management is a fast emerging and ever evolving field. As businesses become part of the Infosphere (the increasingly integrated physical and digital spheres), digital practices of business will have an immense impact on stakeholders and society at large. The following modules will be included in the programme:

- **AI CONCEPTS:** The first session shall be devoted to the conceptual basics: What is the Industrial Revolution 4.0? What is Internet of Things (IoT)? What is the Infosphere? What is the difference between algorithm and artificial intelligence? What does 'intelligence' mean in artificial intelligence? What are the differences between the engineering and the cognitive approaches to AI? What is explainable AI or X-AI? What is machine learning? What is prediction in machine learning? How is predictive reasoning different from other kinds of reasoning? What is the Strong AI discourse? What does it mean when it is said that 'machines can think'?
- **ETHICAL AI FRAMEWORKS VS. BLUE-WASHING:** The second session will introduce managers to the ethical concerns associated with business usage of AI and Big Data. Is the consumer a 'prosumer' today? Is the prosumer the data principal? What are the ethical responsibilities of firms as data fiduciaries: how to protect data privacy? Why is it essential to store and trade in consumer data responsibly? What kind of stakeholder engagement must firms have with the prosumer/data principal? How to ensure that algorithmic decision-making is bias-free? How to ensure greater transparency in the AI-based decision-making process, and how to achieve greater meta-autonomy and accountability for human agents (such as designers, managers, coders) and legal agents (such as the firm)? How to ensure that there is greater demographic diversity in the data sets used for training of AI systems? This session will help participants engage with ethical AI principles to be found in various frameworks, such as beneficence, non-maleficence, autonomy, justice and explicability, in such a manner that they can incorporate these basic principles in their AI governance frameworks. This session will also help participants identify some of the most common forms of unethical AI management practices such as blue-washing, ethics lobbying, ethics dumping, and ethics shopping.
- **DIGITAL STAKEHOLDER MANAGEMENT & ETHICAL CONCERNS OF AI IN FUTURE:** Big Data allows data analytics and pattern recognition, which allows increasing sophistication of the predictive function of machine-learning. Small AI start-ups rely on big digital firms for data infrastructure and large data sets on which they train their AI systems. But who generates the data? The

prosumers, of course, and the micro-tech workers. How can firms, as part of their ethical AI management framework, recognise and include the data principals as legitimate stakeholders of the firm's data infrastructure? How can companies ethically handle data of consumers and employees and communities of different nations? This session is devoted specifically to the ideation and articulation of one specific ethical concern about AI: how to identify stakeholders of the firm's AI infrastructure? How to integrate them and their concerns into the AI governance frameworks of the firms? How to ensure channels of transparent and meaningful stakeholder engagement?

- **CORPORATE DATA & AI GOVERNANCE FRAMEWORKS:** This session will introduce the participants to some of the most widely hailed and recognised AI and data governance frameworks adopted by corporations. For example, Mastercard's Privacy by Design mechanism, which it has deeply integrated into its business operations, and IBM Design for AI framework shall be discussed, amongst others. It is imperative to recognise that different industries will have to confront and effectively deal with different sets of ethical AI concerns. This session will illuminate key concerns from a host of industries in service, retail, banking and manufacturing.
- **LAW & REGULATION:** This session will be an in-depth engagement with the most influential international regulatory frameworks of data and AI governance and their relevance for business. From EU'S GDPR (General Data Protection Regime) to the Indian Digital Data Protection regulation, this session will give participants a detailed and lucid introduction to the present and possibly future legal issues which businesses would have to deal with for effective AI systems management.
- **CRIMINAL USAGE OF AI & HOW FIRMS CAN PROTECT THEMSELVES AND THEIR STAKEHOLDERS:** Firms and their clientele as well as their other stakeholders can be vulnerable to various criminal digital practices such as data theft through hacking, data leakage and psychological profiling of consumers through data mining without consent. Phishing is one such practice where machine learning is used to send personalised messages to consumers, urging and manipulating them to disclose sensitive data; again, bots are increasingly being used to place 'false orders'. The object of this session is to understand how firms can protect their operations, their reputation and their customers from possible criminal AI usage. AI design, deployment and governance mechanisms of firms need to incorporate the risks of possible criminal usages of AI. A crucial question to be discussed in this session is regarding whether firms bear any legal liability for misuse of their consumer data by unscrupulous third parties.

The management development programme shall be a three-day programme consisting of six sessions; each session is of a three-hour duration.



PROGRAMME DIRECTOR

Dr. Nisigandha Bhuyan is full professor of Business Ethics at the Indian Institute of Management, Calcutta. She has nearly two decades of teaching experience in the field of business ethics. She has worked extensively in specific areas such as the philosophical foundations of business ethics, the stakeholder theory approach to business ethics, contractarian business ethics as well as ethics of technology. She is currently the editor of the prestigious Scopus-cited journal, Journal of Human Values, published by IIM-C. In addition, Dr Bhuyan heads the highly reputed Centre for Human Values at IIM-C. She holds PhD from Indian Institute of Technology-Kanpur (IIT-K) and she has conducted her post-doctoral research work at the ISB, Hyderabad.



PROGRAMME DETAILS

- Programme Commencement:** 9:00 AM on August 05, 2024
- Programme Conclusion:** 2:00 PM on August 07, 2024
- Accommodation:** For Residential participants, on single occupancy
 - **Check-in:** August 04, 2024 (6:00 PM onward)
 - **Check-out:** August 07, 2024 (2:00 PM)



PROGRAMME FEES

- Residential (R):** ₹ 72,000/- plus taxes and surcharges as applicable.
- Non-Residential (NR):** ₹ 62,000/- plus taxes and surcharges as applicable.

We would strongly encourage candidates to enroll as Residential participants, as the experience of an MDP is optimized in a full-immersion mode.

Discount on Programme fees:

A discount of 10% on the Programme fees can be availed by an organization if it nominates at least 4 participants for a particular MDP.



TERMS & CONDITIONS

- Participants would have to make their own travel arrangements.
- Accommodation at IIM Calcutta will be provided till 2:00 PM on the last day of the Programme. Participants who may wish to stay beyond this time will have to check with the CMDP Office for room availability, and associated charges. IIM Calcutta does not provide any family accommodation.
- Cancellation Policy: In case you/your nominated candidate(s) does(do) not attend the programme, 40% of the programme fees will be retained, as per policy.
- Executive Education Alumni: With effect from April 01, 2017, participants of IIM Calcutta's 'Open' MDPs who attend 20 days of learning through two or more Open MDPs will be eligible to apply for 'Executive Education Alumni of IIM Calcutta' status.

HOW TO APPLY

- You can apply/nominate your personnel by clicking on the “Apply Now” link corresponding to the particular MDP, as appearing on our online calendar available at: <https://iimcal.ac.in/mdp/mdp-calendar>
- Once the candidature(s) is (are) approved, the sponsoring authority or participant (in case of self-nomination) will be intimated over email along with a Proforma Invoice seeking programme fees in advance.
- Programme fees can be remitted online through Electronic Fund Transfer (NEFT/RTGS).
- Upon remitting the fees online, kindly intimate CMDP office with the UTRNo./relevant transaction details through email, so that we can connect your remittance to your nomination(s). Please note that confirmation of participation is subject to receipt of Programme fees by CMDP Office before commencement of the MDP.

IIM CALCUTTA’S ACCREDITATIONS AND RANKINGS

- Triple accreditations by AACSB (Association to Advance Collegiate Schools of Business), AMBA (Association of MBAs) & EQUIS.
- IIM Calcutta is the only B school in India to be a member of CEMS, a global alliance of leading business schools, multinational companies and NGOs
- IIM Calcutta’s MBA programme has been ranked 60th and MBA-Ex programme 76th in Financial Times Global rankings, 2023. In Domestic rankings, the Institute has secured 1st position in both BT-MDRA and Fortune India Best B-School Survey 2023



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For all other details on administrative matters please refer to the ‘Guidelines for Participants’ on our website or e-mail to program_mdp@iimcal.ac.in