The Ethics of Big Data Training Course

Professional Development Training Course Outline

Category	Research and Data Analysis	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today’s data-driven world, organizations harness unprecedented volumes of data to drive strategic decision-making, optimize operations, and predict consumer behavior. However, with great data comes great responsibility. The Ethics of Big Data Training Course empowers professionals to navigate the complex landscape of data privacy, AI ethics, regulatory compliance, and responsible analytics. This program highlights the importance of ethical frameworks, transparency, and accountability, ensuring that data-driven insights are used responsibly and sustainably. Participants will gain the ability to critically assess the ethical implications of big data initiatives, minimizing risk while maximizing business impact.

As industries increasingly adopt machine learning, predictive analytics, and AI-powered solutions, the ethical challenges surrounding data collection, storage, and analysis have never been more pressing. This training equips learners with actionable strategies, practical case studies, and compliance knowledge to implement ethical big data practices. By the end of the course, participants will emerge as informed data stewards capable of balancing innovation, privacy, and social responsibility, reinforcing their organization’s credibility in an era of data transparency and trust.

Programme Curriculum

The Ethics of Big Data Training Course

Introduction

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Course Duration

5 days

Course Objectives

By the end of this course, participants will be able to:

1. Understand big data ethics and its relevance in the modern digital economy.
2. Apply data privacy principles in organizational decision-making.
3. Identify ethical risks in AI and machine learning models.
4. Implement transparent data governance frameworks.
5. Navigate GDPR, CCPA, and global data compliance standards.
6. Design bias-free algorithms to promote fairness and equity.
7. Conduct ethical data audits and risk assessments.
8. Foster a culture of responsible data usage within organizations.
9. Leverage ethical AI frameworks for predictive analytics.
10. Utilize data anonymization and encryption techniques to protect sensitive information.
11. Analyze real-world case studies of ethical dilemmas in big data.
12. Integrate sustainable data practices for long-term impact.
13. Develop actionable strategies to enhance trust, transparency, and accountability in data initiatives.

Target Audience

1. Data Scientists and Analysts
2. AI and Machine Learning Engineers
3. IT and Cybersecurity Professionals
4. Business Intelligence Managers
5. Compliance and Risk Officers
6. Policy Makers and Regulators
7. Product Managers and Developers
8. C-Level Executives and Decision-Makers

Course Modules

Module 1: Introduction to Big Data Ethics

- Understanding the ethical implications of big data
- History and evolution of data ethics
- privacy, transparency, and accountability
- Role of ethics in business intelligence
- **Case Study:** Facebook-Cambridge Analytica data scandal

Module 2: Data Privacy and Protection

- Core concepts of data privacy and confidentiality
- GDPR, CCPA, and international compliance standards
- Techniques for anonymization and pseudonymization
- Data breach prevention strategies
- **Case Study:** Equifax data breach and lessons learned

Module 3: AI Ethics and Responsible Analytics

- Ethical considerations in machine learning and AI
- Avoiding algorithmic bias and discrimination
- Explainable AI and transparency in decision-making
- Balancing automation with human oversight
- **Case Study:** Amazon recruitment AI bias incident

Module 4: Data Governance and Compliance

- Developing organizational data governance frameworks
- Policies for responsible data collection and usage
- Regulatory compliance and audit readiness
- Data stewardship and accountability
- **Case Study:** Microsoft compliance in cloud data management

Module 5: Ethical Decision-Making in Big Data

- Frameworks for ethical decision-making
- Risk assessment and mitigation strategies
- Ethical dilemmas in data monetization
- Encouraging a culture of responsibility
- **Case Study:** Google Health AI project ethical concerns

Module 6: Mitigating Bias and Ensuring Fairness

- Types of data and algorithmic biases
- Techniques for bias detection and correction
- Fairness metrics in AI and analytics
- Inclusion and diversity considerations in data
- **Case Study:** COMPAS algorithm bias in criminal justice

Module 7: Data Security and Ethical Risk Management

- Cybersecurity fundamentals for big data
- Ethical handling of sensitive information
- Risk identification and mitigation frameworks
- Data encryption, tokenization, and access controls
- **Case Study:** Marriott International data breach analysis

Module 8: Future Trends and Sustainable Practices

- Emerging ethical challenges in AI and big data
- Responsible innovation and sustainability

- Data ethics in IoT, blockchain, and edge computing
- Continuous learning and ethical awareness programs
- **Case Study:** IBM Watson Health ethical AI initiatives

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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