Training course on Utilizing Big Data for Social Protection M and E

Professional Development Training Course Outline

Category	Social Protection	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Utilizing Big Data for Social Protection Monitoring and Evaluation (M and E) is a cutting-edge and transformative area that leverages vast and diverse datasets to enhance the efficiency, targeting, and responsiveness of social protection programs. Traditional M and E approaches often rely on periodic surveys and administrative data, which can be limited in their timeliness, granularity, and ability to capture complex, real-time dynamics. Big data, characterized by its Volume, Variety, and Velocity, offers unprecedented opportunities to generate deeper insights, identify vulnerabilities with greater precision, monitor program implementation in real-time, and inform adaptive management. This specialized field focuses on harnessing the power of advanced analytics, machine learning, and novel data sources to revolutionize how social protection interventions are designed, delivered, and assessed. Training Course on Utilizing Big Data for Social Protection M and E is meticulously designed to equip with the advanced theoretical insights and intensive practical tools necessary to excel in Utilizing Big Data for Social Protection M and E. We will delve into the foundational concepts of big data and its potential applications, master the intricacies of working with diverse data sources (e.g., mobile phone data, satellite imagery, social media), and explore cutting-edge approaches to data processing, predictive analytics, and real-time monitoring. A significant focus will be placed on understanding the ethical considerations, privacy concerns, and practical challenges of implementing big data solutions in social protection contexts. By integrating industry best practices, analyzing real-world complex case studies, and engaging in hands-on exercises with big data tools, attendees will develop the strategic acumen to confidently champion and implement big data solutions, fostering unparalleled precision, responsiveness, and evidence-informed decision-making in social protection.

Programme Curriculum

Training Course on Utilizing Big Data for Social Protection M and E

Introduction

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Course Objectives

Upon completion of this course, participants will be able to:

1. Analyze the fundamental concepts of **Big Data (Volume, Variety, Velocity, Veracity)** and its relevance to social protection.
2. Comprehend the strategic potential of **Big Data for enhancing social protection M and E** across the program cycle.
3. Master the identification and utilization of **diverse Big Data sources** relevant to social protection (e.g., mobile, satellite, transactional).
4. Develop expertise in **Big Data processing techniques** including cleaning, integration, and transformation.
5. Formulate strategies for applying **predictive analytics and machine learning** for targeting and vulnerability assessment.
6. Understand the critical role of Big Data in enabling **real-time monitoring and early warning systems** for social protection.
7. Implement robust approaches to **data governance, privacy, and ethical considerations** in Big Data applications.
8. Explore key **challenges and opportunities** in integrating Big Data into existing social protection M and E systems.
9. Apply methodologies for **visualizing and communicating insights** from Big Data analysis.
10. Develop preliminary skills in using **Big Data tools and platforms** (e.g., cloud computing, basic programming concepts).
11. Differentiate Big Data from traditional data sources in M and E

12. Understand data integration and record linkage across disparate sources
13. Learn to establish early warning systems (EWS) for shocks.

Target Audience

This course is essential for professionals seeking to leverage advanced data for social protection

1. **Social Protection M and E Specialists:** Seeking to integrate big data into their practice.
2. **Data Analysts & Scientists:** Working with large datasets in development contexts.
3. **Program Managers & Coordinators:** Overseeing data-driven social protection programs.
4. **Government Officials:** From ministries responsible for social welfare, planning, and digital transformation.
5. **Development Practitioners:** From NGOs and international organizations.
6. **Researchers & Academics:** Exploring innovative data applications in social policy.
7. **Technology Innovators:** Developing solutions for social impact.

Course Duration: 5 Days

Course Modules

Module 1: Introduction to Big Data for Social Protection

- Define Big Data: Volume, Variety, Velocity, Veracity (the 4 Vs).
- Discuss the relevance of Big Data for social protection challenges.
- Differentiate Big Data from traditional data sources in M and E.
- Explore the potential of Big Data across the social protection program cycle.
- Identify key opportunities for Big Data in social protection M and E.

Module 2: Diverse Big Data Sources for Social Protection

- Master the identification of various Big Data sources.
- Understand the utility of mobile phone data (Call Detail Records, mobile money).
- Explore satellite imagery and geospatial data for vulnerability mapping.
- Discuss social media data and web scraping for sentiment analysis.
- Analyze administrative data at scale and transactional data.

Module 3: Big Data Processing and Management

- Develop expertise in Big Data processing techniques.
- Learn about data cleaning, validation, and de-duplication.
- Understand data integration and record linkage across disparate sources.
- Explore data transformation and feature engineering.
- Discuss Big Data storage solutions (e.g., cloud-based platforms).

Module 4: Predictive Analytics and Machine Learning

- Formulate strategies for applying predictive analytics.
- Understand machine learning concepts (supervised vs. unsupervised learning).
- Explore algorithms for poverty prediction and vulnerability assessment.
- Discuss the use of machine learning for targeting and fraud detection.
- Analyze case studies of AI/ML in social protection.

Module 5: Real-Time Monitoring and Early Warning Systems

- Understand the critical role of Big Data in real-time monitoring (RTM).
- Learn to establish early warning systems (EWS) for shocks.
- Discuss the integration of real-time data feeds into M and E systems.
- Explore techniques for analyzing streaming data for timely insights.
- Analyze case studies of Big Data for shock-responsive social protection

Module 6: Data Governance, Privacy, and Ethics

- Implement robust approaches to data governance for Big Data.
- Understand principles of data privacy and confidentiality.
- Discuss ethical considerations: bias in algorithms, consent, function creep.
- Explore data anonymization and pseudonymization techniques.
- Learn about legal and regulatory frameworks for Big Data

Module 7: Challenges and Opportunities in Big Data Integration

- Explore key challenges in utilizing Big Data for social protection M and E.
- Discuss issues of data scarcity, fragmentation, and interoperability.
- Address capacity gaps and institutional readiness.
- Identify opportunities for innovation and scaling Big Data solutions.
- Analyze strategies for overcoming implementation barriers.

Module 8: Tools, Visualization, and Communication

- Develop preliminary skills in using Big Data tools and platforms.
- Explore cloud computing services (e.g., AWS, Google Cloud basics).
- Learn to visualize Big Data insights effectively.
- Discuss strategies for communicating complex Big Data findings.
- Practice presenting Big Data applications in social protection.

Training Methodology

- **Interactive Workshops:** Facilitated discussions, group exercises, and problem-solving activities.
- **Case Studies:** Real-world examples to illustrate successful community-based surveillance practices.
- **Role-Playing and Simulations:** Practice engaging communities in surveillance activities.
- **Expert Presentations:** Insights from experienced public health professionals and community leaders.
- **Group Projects:** Collaborative development of community surveillance plans.
- **Action Planning:** Development of personalized action plans for implementing community-based surveillance.
- **Digital Tools and Resources:** Utilization of online platforms for collaboration and learning.
- **Peer-to-Peer Learning:** Sharing experiences and insights on community engagement.
- **Post-Training Support:** Access to online forums, mentorship, and continued learning resources.

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

- Participants must be conversant in English.
- Upon completion of training, participants will receive an Authorized Training Certificate.
- The course duration is flexible and can be modified to fit any number of days.
- Course fee includes facilitation, training materials, 2 coffee breaks, buffet lunch, and a Certificate upon successful completion.
- One-year post-training support, consultation, and coaching provided after the course.
- Payment should be made at least a week before the training commencement to Fineskill Training Center account, as indicated in the invoice, to enable better preparation.

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

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