

Day 2



Generative AI Security

IT Governance vs Data Governance vs AI Governance:

These three governances look similar, but they focus on different layers of technology. The best way to remember:

- IT Governance = Rules for technology infrastructure
- Data Governance = Rules for data
- AI Governance = Rules for AI models & their behaviour

What IT Governance Covers?

IT Governance creates rules, processes, and controls for all traditional IT systems.

1. Hardware
2. Software
3. IT Operations
4. IT Security (traditional)

What Data Governance Covers?

Data governance focuses only on data: its quality, legality, usage, and control.

1. Data Quality
2. Data privacy
3. Data cataloguing and Metadata
4. Data Access control

What AI Governance Adds?

AI Governance adds controls for things that IT governance and data governance cannot handle:

1. Model Behaviour
2. Bias and Fairness
3. AI risk management
4. Transparency & Explainability
5. Ethical use

When AI Governance Must Be Separate?

AI governance must be separate when:

1. Models influence real decisions
2. AI introduce new risks
3. Laws demand special AI oversight
4. AI systems become large & complex

Mapping Responsibilities Between These Domains:

Each domain has its own responsibilities, and together they create a complete governance system. Here is a simple mapping:

IT Governance Responsibilities

- Maintain infrastructure
- Manage servers, cloud, apps
- Network and cybersecurity
- IT change control
- Set IT policies

Data Governance Responsibilities

- Data quality
- Data privacy
- Data classification
- Data lineage
- Consent and retention

AI Governance Responsibilities

- Model approval
- Model risk assessment
- Bias testing & fairness controls
- Explainability requirements
- AI security rules

Principles of Responsible AI:

Responsible AI means building and using AI systems in a way that is safe, fair, transparent, and trustworthy, so people are not harmed and decisions remain ethical. These principles guide how AI should behave throughout its entire lifecycle.

- **Fairness:** AI should avoid bias and treat everyone equally.
- **Transparency:** AI decisions must be understandable and well-documented.
- **Accountability:** Humans own the risks and decisions; AI never acts alone.
- **Reliability & Safety:** AI must be accurate, stable, robust, and safe.
- **Privacy:** AI must minimize data collection and protect user data.
- **Sustainability:** AI should reduce energy usage and environmental impact.
- **Human Oversight:** Humans control the system, review decisions, and can override the AI.

--The End--