

# AIG150- Week 11

## Data Governance and Ethics

Reading Text:

Ch 01,05,09

Data Ethics: Practical Strategies for Implementing Ethical Information Management & Governance

# Agenda

- ↪ Basic concepts related to data ethics
- ↪ Ethics in the context of data management
- ↪ Ethics and data governance

# Data Ethics & Data Governance

- ↪ **Data Ethics:** The moral considerations and principles guiding the responsible collection, use, and handling of data.
- ↪ **Data Governance:** The framework, policies, and practices for managing and ensuring the quality, availability, and security of data within an organization.

# The Need

- ↪ Data gathering
- ↪ Data analytics
- ↪ Data is the asset for many organizations
- ↪ With data comes great responsibility
- ↪ Data driven dilemma
- ↪ Societal values versus organizational values versus individual rights

# Questions You need to ask ?

- ↪ Why is our approach to data ethics so flawed?
- ↪ What kinds of data-processing activity are you or your organization engaging in that raises ethical concerns or questions?
- ↪ How would you know if proposed processing of data raised ethical concerns?
- ↪ If something in your organization's approach to managing data raised an ethical concern for you, how would you express that and who would you express it to?

# Information Age

- ↪ Unprecedented access to information in modern era
- ↪ Catalysts
  - ↪ Low-cost computers
  - ↪ High-speed communication networks
- ↪ New technologies continue to emerge
  - ↪ Smartphones
  - ↪ Video streaming services
  - ↪ Voice -activated digital assistants
  - ↪ Low-cost drones
  - ↪ Self-driving cars
  - ↪ Internet of things

# The Evolution of Technology

**Plato**, writing in the *Phaedrus* in 370BC (Plato, 2009), recounted Socrates' view of the new information management technology that was emerging in Greece at that time, writing:  
*“This discovery of yours will create forgetfulness in the learner’s souls, because they will not use their memories; they will trust to the external written characters and not remember of themselves”.*

# Ethics & Technology

**Mario Bunge** argued that ‘the technologist must be held not only technically but also morally responsible for whatever he designs or executes not only should his artifacts be optimally efficient but, far from being harmful, they should be beneficial, and not only in the short run but also in the long term’ (Bunge, 1977).

This echoes the sentiment in Recital 4 of the EU General Data Protection Regulation, which says that ‘***the processing of personal data should be designed to serve mankind***’ (European Union, 2016)



# Privacy & Technology

- ↪ Right to privacy
- ↪ Privacy related to intellectual property
- ↪ Privacy as a right related to human dignity
- ↪ Ethical approach → data privacy and data protection laws to provide a legal framework to give effect to the ethical values of privacy as a defined right.

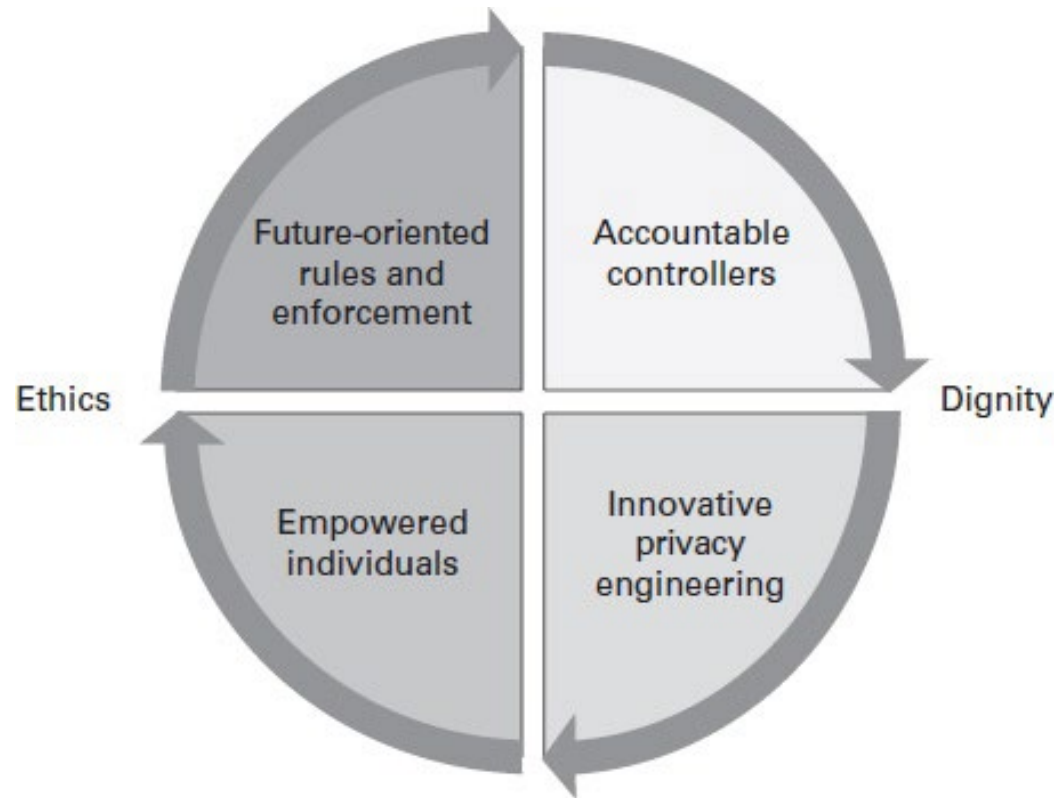
# Digital Waste

- ↪ Digital is physical
- ↪ The effect of digital\data processing on the environment
- ↪ Environmental impacts of AI technologies
- ↪ Environmental impacts of data center
- ↪ Carbon tracking and reporting
- ↪ Efficiency and data minimization
- ↪ Renewable Energy

# Other Ethical Dilemmas

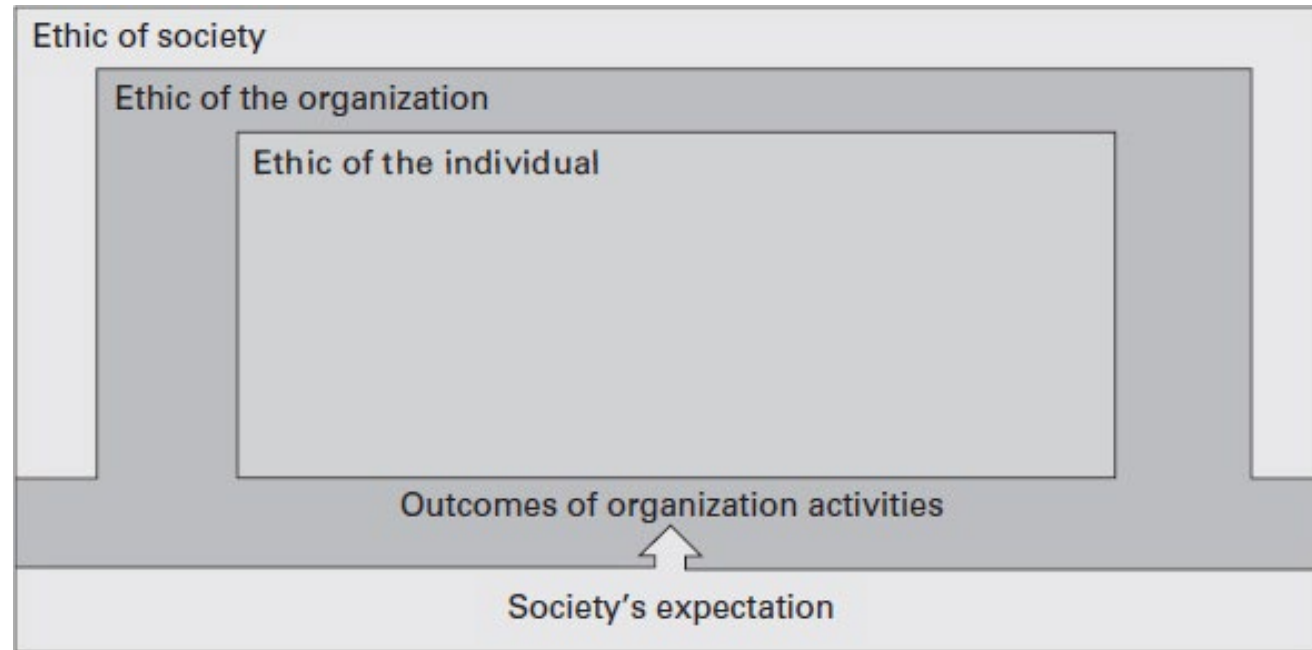
1. Does it preserve or enhance human dignity?
2. Does it preserve the autonomy of the human?
3. Is the processing necessary and proportionate?
4. Does it uphold the common good?
5. Does the outcome violate any of the first four points?

# Effective Ethics In Information Management



Taken from reference text  
EDPS(European Data Protection Supervisor) vision for big data ethics

# Ethics of Individuals Versus Organization



Taken from reference text

# Ethics & Data Governance

- ↪ Data governance is an analogous system that enables an organization to determine what is considered proper action regarding data and data processes.
- ↪ It enables clear definitions, decision-making rights and responsibilities, and provides an escalation path or process of mediation or remediation when people have questions or disputes as to what should be done with what data, by whom, and under which circumstances.
- ↪ Data governance is, in theory, ethically neutral and acts as a guiding function that facilitates appropriate decision-making and enforcement capabilities.
- ↪ The application of data governance in practice cannot be said to be ethically neutral.

# Role of Data Governance

Key role of the data governance function in any organization is ensuring clarity of data definition, clarity of roles, responsibilities and accountabilities for data, and implementation of appropriate technologies and tools to support the delivery of data-driven projects.

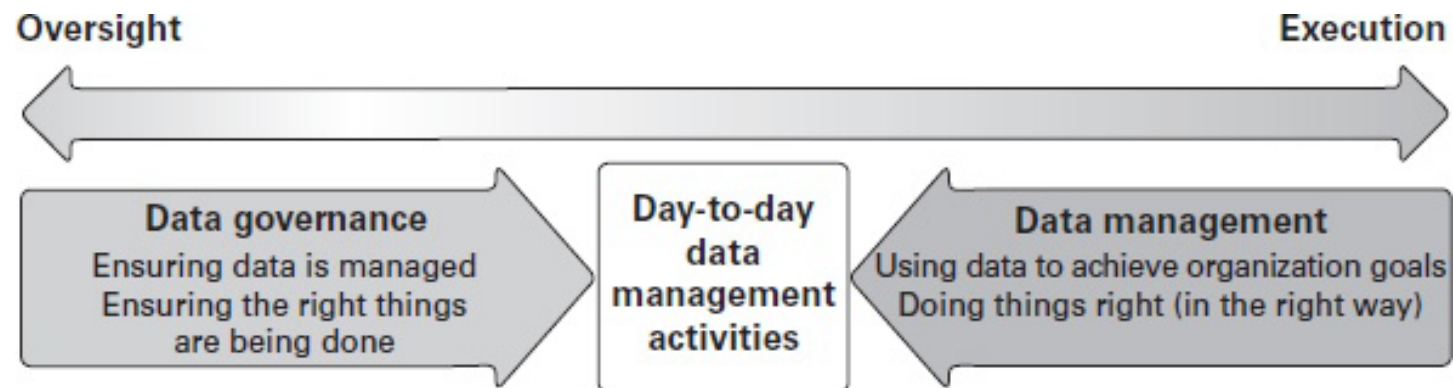


Figure 5.2: Separation of duties – a key concept in data governance

# How Data Governance Supports Ethics ?

- ↪ An ethics-based framework for data governance decisions supports a wider ethics-based approach to information management, particularly in scenarios where codified standards or laws lag behind the technological capabilities available and supports a wider ethics-based approach to information management.
- ↪ It enables and coordinates the definition and communication of ethical values in setting and enforcing data-related policies, standards, and processes. It ensures a clear escalation and remediation path to raise any ethical issues regarding data access, quality, ownership, standards, security, usage and management.
- ↪ A strong ethical culture supports and enables effective data governance in organizations in several key areas.
- ↪ Governance of any kind includes a strong ethics component.



# Ethical Information Governance at Apple

Ethical principles followed by Apple include:

- Right and wrong is determined from the perspective of its customers.
- Technology should enable individuals to control their data.
- Data is processed on devices.
- Where server-side responses are required, the data is collected with an identifier that is not tied to any other identifier.
- Data is the customer's, not Apple's.
- Privacy is strategically and deliberately designed into products.

# Example Ethical Principles for Data Governance

- ↯ People are an end in and of themselves, not a means to an end
- ↯ The arbiter of our ethics is the customer, through the outcomes they experience
- ↯ The customer owns their data. We use it on trust
- ↯ The only mode of expression for ethics is action
- ↯ The processing of data should be designed to serve mankind
- ↯ First, do no harm
- ↯ Accountability follows the data life cycle

# Hierarchy of principles to outcomes

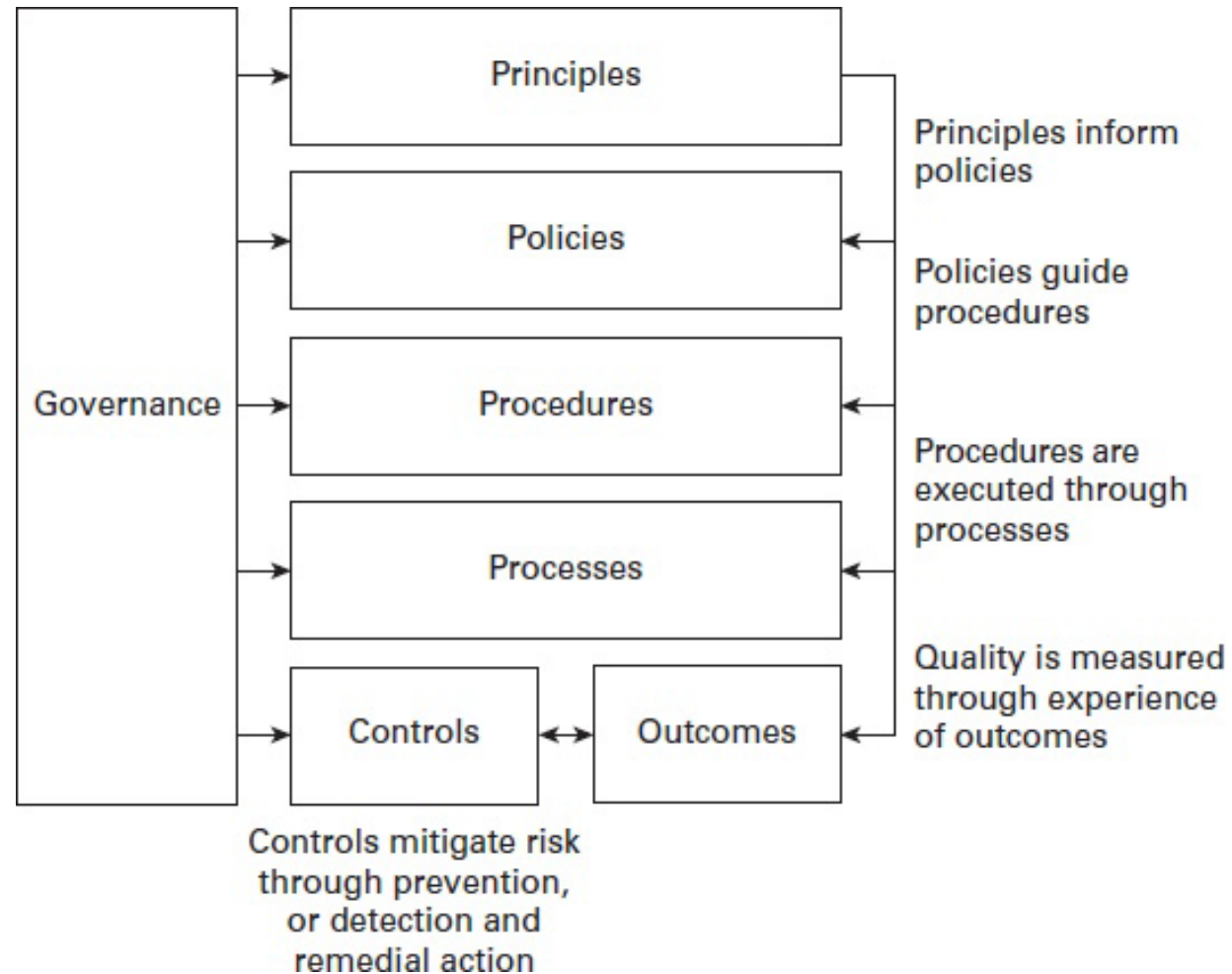


Image taken from reference text

# Last few Points...

- ↪ Communication of ethical values and supporting ethical values through stewardship and governance
- ↪ Using storytelling to communicate values
- ↪ Information ethics and the separation of duties
- ↪ Information ethics and risk perception
- ↪ Data review boards
- ↪ Information ethics and data governance maturity
- ↪ Building a governance framework for information ethics