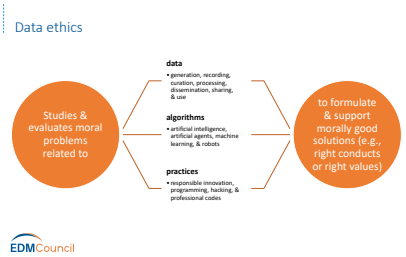
Data ethics

Data ethics is the study and evaluation of problems related to data, algorithms, and information practices to formulate and support morally good solutions.



1. In other words, data ethics answers the question: How *should* we leverage and manage data?
2. Increasingly, those collecting, sharing, and working with data are exploring the ethics of their practices and, in some cases, being forced to confront those ethics in the face of public criticism.
3. Codes of data ethics are being developed across sectors, demand for ethics training is increasing, and debates are focusing on issues like the monetization of personal data, bias in data sources and algorithms, and the consequences of under-representation in data.

Difference between compliance & ethics

Law evolves retrospectively—in response to problems that arise---to provide rules to which a society must adhere. Ethics, on the other hand, guide the behavior of members of a society. A code of ethics helps you do what's considered by the society to be morally right.

4. What this means is that laws and ethics are related, but there is a lag between the values of a society that manifest in a code of ethics and the institutionalization of those values instantiated by law.

Data professionals & the public good

The public expects data professionals to steward data according to standards of practice that not only protect their privacy and security, but also generate positive outcomes that contribute to the public good.

5. What ethics is not

a. Checklist of fixed rules

b. Etiquette

c. Legal compliance

d. List of what not to do

e. Religion

f. Subjective right & wrong

g. Unquestioning obedience to authority

6. What ethics is

a. Cultivating improved character over time, based on moral integrity & principle

b. Doing good work & producing good effects

c. Prioritizing relationships & duty to others in support of human dignity

d. Pursuing good & avoiding evil

e. Reflective decision making that contributes to human well-being

7. Increasingly, ethical data management is becoming a central aspect of the data professional's identity. There is an elevated social status associated with the ethical management of data, in

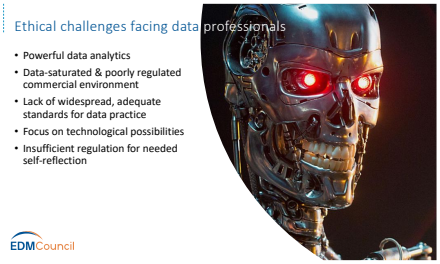
much the same way as other professionals who secure a public good. For example, doctors engender trust by virtue of their medical and ethical expertise; without them, public health would suffer. They swear an oath.

8. Similarly, legal professionals are held accountable for securing a vital public good. Lawyers and judges demonstrate their commitment to justice through both educational success—they have to pass the bar exam—and ethical success—they have to meet the ethical standards of moral conduct.
9. Continuing education and training reinforce data professionals' commitment to ethical data stewardship, in much the same way as other professionals who secure a vital public good, such as health or justice.

Ethical challenges facing data professionals

Perfect Storm of Ethical Risk

10. Powerful data analytics
11. Data-saturated & poorly regulated commercial environment
12. Lack of widespread, adequate standards for data practice
13. Focus on technological possibilities
14. Insufficient regulation for needed self-reflection



Best practices & tools

When we start interrogating the issues that arise with data management, a pattern tends to emerge. These are 12 ethical principles that have implications for data management.

15. Companies that want to lead in ethical data management will encourage a culture that values these principles.

   a. Human Dignity
   b. Downstream Use
   c. Provenance
   d. Expectations
   e. Professionalism
   f. Aspiration
   g. Ethical Review
   h. Robust Governance

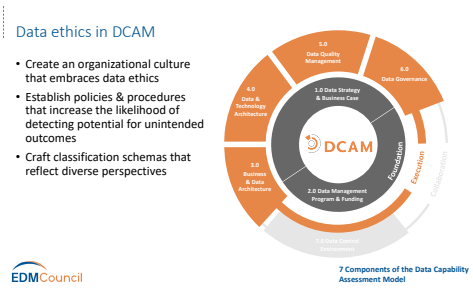
16. Operationalization with DCAM

   a. A Code of Data Ethics articulates how the organization understands the meaning of the data it stewards—now, and in the future
   b. Benefits
      i. Demonstrate organizational intent
      ii. Provide a heuristic model for operational decision making
      iii. Lay the groundwork for eventual legislation

c. Examples & Parallels
    i. NIST
    ii. GDPR
    iii. FAIR
    iv. Sustainability (Green Washing)
d. Integration in Policy
    i. Top-down Mandate
    ii. Bottom-Up Discussion Forums
    iii. Explicit Accountability
e. Need for Diverse Workforce
    i. Assumptions & Proxy Variables
        1. Nuances revealed by diverse participation and culture of openness to varied perspectives

Data ethics in DCAM

DCAM helps organizations establish *policies* and *procedures* that increase the likelihood that data-driven decisions with potential for such unintended outcomes will be identified and modified accordingly.



17. Governing the data ethics includes:

a. establishing a formal data ethics oversight function;

b. adhering to the ethical access and appropriate use of data; and

c. monitoring whether the outcomes of data access and use are ethical.

18. An organizational culture that embraces data ethics can go a long way toward minimizing vulnerability to data breaches and offsetting the biases inherent in programming assumptions.

19. An authentic commitment to data ethics starts with a top-down mandate, which is supported throughout the organization by specific practices and empowered accountability. In other words, employees must be empowered to insist on data practices that are aligned with the data ethics mandate. Without empowered employee actions and established routines, data ethics will not permeate the organizational culture.