Module 3

Responsible Data Science

Required

- Part III: Institutionalizing Ethical Reasoning about Big Data from *Ethical Reasoning in Big Data: An Exploratory Analysis*

  - Technology for Privacy Assurance

  - Data Management Plans, Institutional Review Boards, and the Ethical Management of Big Data About Human Subjects

  - Integrating Ethical Reasoning into Preparation for Participation to Work in/with Big Data Through the Stewardship Model

  - Harlow, H. (2018). Ethical concerns of artificial intelligence, big data and data analytics. (Links to an external site.) *Proceedings of the European Conference on Knowledge Management*, *1*, 316–323.

Recommended Readings

- Rappaport, J. (2018). Is proprietary software unjust? Examining the ethical foundations of free software (Links to an external site.). *Philosophy & Technology, 31*(3), 437. https://search-proquest-com.csuglobal.idm.oclc.org/docview/1969424199?accountid=38569

- Tam. K.Y., Feng, K.Y., & Kwan, S. (2019). The role of morality in digital piracy: Understanding the deterrent and motivational effects of moral reasoning in different piracy contexts (Links to an external site.). *Journal of the Association for Information Systems, 20*(5), 604–628. https://aisel.aisnet.org/jais/vol20/iss5/3/

- Rose, D. (2019). *Data ethics for business* (Links to an external site.) [Video].

▼ What is the purpose of an ethical checklist?

An ethical checklist can provide for an accounting during the software manufacturing process that could lead to provisioning ethical controls in a new solution.

▼ How can ethical checklists be used during the software development process?

1. A checklist functions to **flag potential ethical issues that are commonly understood**.

2. A checklist can **pause the software manufacturing process** briefly enough to allow standard ethical controls to be built in.

3. Checklists can **provide for independent ethical assessments** of the software system as it is being fabricated.

▼ Incorporating ethical controls typically involves what?

Defining a social impact statement

▼ What ethical guidelines should be followed in an organization?

- Empower contributors to raise concerns when ethical vulnerabilities are identified.

- Empower organization staff with the ability to escalate ethical issues without fear of recrimination.

- During the vetting process for new hires, investigate the candidate's ethical perspectives and practices.

▼ What provides oversight in the regulation of data use and data policy in Europe?

the EU's General Data Protection Regulation (GDPR)

▼ Why are organizations using data are reluctant to adopt Institutional Review Board (IRB) models?

They are complex, cannot be responsive, and it is a challenge for IRBs to adapt to new technologies and ideas.