

# Obligation of Knowing: Applying Ethics to Learning Analytics

Matthew D. Pistilli

[mdpistilli@purdue.edu](mailto:mdpistilli@purdue.edu)

[@mdpistilli](https://twitter.com/mdpistilli)

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# “Big Data” and Education

- What, specifically, is the role of big data in education?
- How can big data enrich the student experience?
- Is it possible to use big data to increase retention?
- To what extent can big data contribute to successful outcomes?

# Lack of Discussion of Ethics in Data and Technological Innovation

## Why?

- Cutting-edge technologies are being developed every day
- Cost/profit margins are determined with speed of development
- Typically education lines are split between science and humanities / technology and ethics
- Difference between what *can* be done and what *should* be done

# Where to go from here?

- Begin the discussion now
- Have the difficult conversations
- Bring together the stakeholders:
  - Data scientists, engineers, managers, ethicists
- Establish a framework to adapt quickly to questions of whether or not an action or research agenda should occur

# Ethics and Terminology

- *Student autonomy*
- *Information confidentiality*
- *Informed consent*
- *Profiling*
- *Predictive competency*
- *Patriarchal decision-making*
- *Epistemology*

# Ethical Discussions = Innovation

- **Logic of negation**
  - Why shouldn't we do this?
  - What should we do instead?
- **Different paths emerge from divergent conversations**
  - Stakeholders have different voices and understandings of potential paths of development

# Potter's Box

- **Definition**
  - Identifying values
  - Appealing to ethical principles
  - Choosing loyalties
  - Responsibilities and recommendations

# Potential Questions for Examination

- Does the college administration let students know their academic behaviors are being tracked?
- What and how much information should be provided to the student?
- How much information does the institution give faculty members? Does the institution provide a calculated probability of academic success or just a classification of success (e.g., above average, average, below average)?
- How should the faculty member react to the data? Should the faculty member contact the student? Will the data influence perceptions of the student and the grading of assignments?
- What amount of resources should the institution invest in students who are unlikely to succeed in a course?
- What obligation does the student have to seek assistance?

# Research Questions

- What do the ethical models look like?
- How are these models deployed rapidly – at the speed of technology?
- How are these models refined with time?