

# Ethics Pedagogy: Using Case Studies in the Classroom

Dr. Jason Borenstein  
Georgia Institute of Technology  
[borenstein@gatech.edu](mailto:borenstein@gatech.edu)

Dr. Joseph Herkert  
North Carolina State University  
[jherkert@ncsu.edu](mailto:jherkert@ncsu.edu)

# Background

Case studies have a long history of use in realms such as:

- ▶ Engineering Ethics
- ▶ Bioethics
- ▶ Responsible Conduct of Research (RCR)

# ABET and Ethics

“The program must have documented student outcomes that prepare graduates to attain the program educational objectives...

4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.”

Source: ABET, Criteria for Accrediting Engineering Programs, 2019–2020,  
<https://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-engineering-programs-2019-2020/>

(last visited Sept. 10, 2019).

# NSF's RCR Policy (excerpt)

“Effective January 4, 2010, NSF will require that, at the time of proposal submission to NSF, a proposing institution's Authorized Organizational Representative certify that the institution has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research.”

Source: National Science Foundation,  
*Responsible Conduct of Research*,  
Federal Register, Volume 74, Number 160, August 20, 2009.

# NIH's RCR Policy (excerpt)

“While on-line courses can be a valuable supplement to instruction in responsible conduct of research, online instruction is not considered adequate as the sole means of instruction. A plan that employs only online coursework for instruction in responsible conduct of research will not be considered acceptable...”

Source: National Institutes of Health, *Update on the Requirement for Instruction in the Responsible Conduct of Research*, <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>  
November 24, 2009 (last visited Sept. 18, 2019).

# The Case Study Approach

Some of justifications for using cases include:

- ▶ They can help students (and others) see the perspectives of multiple parties connected to a situation.
- ▶ They can enable students to grapple with the ethical complexities of professional practice.
- ▶ They can be an effective jumping off point for learning concepts/principles in ethics.

# Some Considerations When Selecting a Case Study

- ▶ Real vs. Hypothetical
- ▶ Historical vs. Contemporary
- ▶ Complex vs. Relatively Straightforward Ethical Issues
- ▶ Discipline-Specific vs. Discipline Neutral/Outside of the Discipline

# Real



# Hypothetical

## Potential advantages

- ▶ May resonate with students (can make issues seem less abstract)

## Potential disadvantages

- ▶ Knowing what already happened might close off discussion
- ▶ May have to keep updating the case as the details change

## Potential advantages

- ▶ May be easier to design; less of a burden to update

## Potential disadvantages

- ▶ Might be seen as too abstract and irrelevant



# Historical

# Contemporary

## Potential advantages

- ▶ May be easier to use; more fully developed content
- ▶ Use guides might be available

## Potential disadvantages

- ▶ Might seen as dated depending on how old the case is
- ▶ Might close off discussion if students know what happened

## Potential advantages

- ▶ Might be more engaging for students
- ▶ May allow for more room to envision possible solutions

## Potential disadvantages

- ▶ May have to keep updating the case as the details change
- ▶ It may be difficult to find accompanying analyses, teaching guide, etc. to go with the case

# Complex



# Straightforward

## Potential advantages

- ▶ Might be more interesting and more informative
- ▶ Future professionals will have to grapple with messiness

## Potential disadvantages

- ▶ Learning curve for instructors
- ▶ Student frustration with uncertainty
- ▶ Risk that students may think “anything goes” in ethics

## Potential advantages

- ▶ Less of a learning curve for instructors
- ▶ The importance of introducing students to established standards, etc.

## Potential disadvantages

- ▶ Might imply that all ethical disputes can be easily, neatly resolved

# Discipline-Specific | Neutral/Outside

## Potential advantages

- ▶ Might resonate more with students
- ▶ Increase likelihood of reflecting on professional practice

## Potential disadvantages

- ▶ Can be hard to find a good case depending on the discipline/field

## Potential advantages

- ▶ Might be easier to find
- ▶ Research/practice often crosses disciplinary lines and a good case can help illustrate that

## Potential disadvantages

- ▶ Potential lack of relevance

# Resources

## Articles and Books:

- ▶ Brummel, B.J., C.K. Gunsalus, K.L. Anderson, and M.C. Loui. 2010. Development of Role-Play Scenarios for Teaching Responsible Conduct of Research. *Science and Engineering Ethics* 16: 573–589.
- ▶ Davis, Michael. 1999. “Case Method” Ethics and the University. New York: Routledge. Pp.143–172.
- ▶ Davis, Michael. 1997. Developing and Using Cases to Teach Practical Ethics. *Teaching Philosophy*. 20(4): 353–385.
- ▶ Harris Jr, C., M. Pritchard, M. J. Rabins, R. James, and E. Englehardt. 2018. *Engineering Ethics: Concepts and Cases* (6<sup>th</sup> edition). Cengage Learning.

## Case Study Collections:

- ▶ IIT Ethics Education Library: Case Study Collection – <http://ethics.iit.edu/eelibrary/case-study-collection>
- ▶ NSPE Case Studies – <https://www.nspe.org/resources/ethics/ethics-resources/board-ethical-review-cases>
- ▶ OEC Case Studies – [https://www.onlineethics.org/Resources.aspx?resource-type=29\\_772](https://www.onlineethics.org/Resources.aspx?resource-type=29_772)