Perspectives on Students Creating Engineering Ethics Video Skits

Steve Starrett, Ph.D., P.E., D.WRE, F.ASCE
Civil Engineering Department
Kansas State University

June 13, 2011

For many years, I have taught an engineering ethics course for mostly off-campus students

pursuing a graduate degree. I have been privileged to have working engineers that are

interested in engineering ethics in my courses. They have so much workplace experience to

build ethics education on. Through the years, I have developed a number of active assignments

that cause the students to create/develop materials and engage in conversations with others

about ethics. The benefit of actively engaging students is certainly widespread in engineering

ethics education for several reasons: ethics education has potential to be extremely boring or

"mandatory," engagement promotes ownership of ethical concepts, and all students develop a

significant background in "ethics" to build upon. The assignments I commonly make are:

1. Review "What Every Engineer Should Know About Ethics" by K. Humphreys.

2. Review and report on three engineering ethics websites.

3. Interview at least three others on engineering ethics topics.

4. Develop a two-hour engineering ethics workshop for your peers.

5. Create your own Code of Ethics (referencing existing Codes is fine).

6. Create and record an engineering ethics skit.

This perspectives essay is focused on the last assignment, creating a skit. Students must

develop the theme of the skit, the characters, the dialog between the characters, and the setting

of the skit. Ultimately, they record it as a video. I expect the skit to be two to five minutes long and to be focused on an ethics topic that is not simply about an illegal activity (i.e., embezzlement, outrageous disregard for safety or regulations). Students can be surprisingly creative when given the opportunity. They have developed critical character components while being raised by their parents, grandparents, or other adults that were their primary care providers. They all have a background to build upon when applying ethics to engineering situations, even if they don't initially realize it. Students sometimes think they cannot develop any interesting ideas; however, after some brief coaching, they quickly think of several potential themes.

I have created a YouTube channel (http://www.youtube.com/user/enggethics) with a few of the skits that students have made. Only skits from students who are interested in having their skits on YouTube and have given permission for them to be posted are published there. I have used several of these skits when delivering engineering ethics workshops around the nation. So, students now have a lot of examples to review prior to creating their own skit. One of the skits I most commonly use is available at http://www.youtube.com/user/enggethics#p/u/4/M54N8Ku7kgQ. It is focused around an engineer getting a gift in the mail – front row seats to a popular sporting event. A colleague of the engineer who receives the tickets is also in the scene. The engineer quickly feels uncomfortable about the gift, the person who is giving it, his current professional relationship with the giver, and the monetary value of the gift. His colleague thinks the gift is great and basically calls the engineer a fool for sending the tickets back.

This skit illustrates the complexity of engineering ethics situations. There is so much that can be discussed about gifts, there is guidance in the NSPE Code (among others) of Ethics about gifts and other resources. I have found that gifts, plan stamping, and issues with timesheets are the most common ethical dilemmas that engineers face soon after graduation or obtaining their Professional Engineering license. Many of my students' skits have been created around these topics.

A main benefit of this assignment is that students are able to act out an ethical situation, thus getting a first-hand sense of what it would feel like to be in a particular dilemma. These situations could be something they have been involved with already, something they have heard about, or something they think can happen. The skits can be left unresolved, focus on unethical behavior, or focus on a hero who stands up for the best ethical solution. Skits can have one character or many. Commonly, students have a few characters and a few props. Some of the more unique skits have been computer generated, cartoon drawn, focused on a global environmental topic or conducted in a nuclear reactor. I am very flexible as to how the skits look, sound, and are presented.

Having the assignment to create an engineering ethics skit is often something new for many engineering students. I am really flexible on theme topics in order to promote student ownership of the skit. I am glad, however, to coach during the skit's development. I often provide feedback on a draft script, and one of my easy questions is always "Which canon in the Code of Ethics does this skit address?" Undergraduate students are going to need much more coaching than working graduate students that have a few years of experience. Undergraduates

are much more likely to create a skit that isn't really a possibility, and that is not the best. Obviously, it is better if the ethical dilemma is realistic, and some valuable coaching can help. If the instructor has time, a class discussion of the developed skits can stimulate some very good discussions. I once tried to make this assignment during a mandatory training on research ethics workshop that I conducted. It didn't work out because the students were wishing they were somewhere else. This assignment can take substantial time, so I suggest providing several weeks for students to complete it.

You don't have to be a professional ethicist to make this assignment a successful learning experience for students. An engineering professor who rarely teaches ethics topics formally liked this assignment so much he adapted it to one of his engineering courses. He assigned it as a team project. One of the teams really got into the assignment, so much so that the students submitted their skit to a student short movie competition and won. As with any other assignment, not all finished products are going to be great works. I do think, though, that students at all levels of ethical understanding benefit greatly from developing and performing a skit on an engineering ethics issue. And that is my goal in this assignment.

ncpre

National Center for Professional and Research Ethics