Panel on Software Engineering Ethics

Abstract. The panel addresses practical issues and approaches for integrating the study of ethics into professional software engineering education. The three presentations summarized below assume that one goal of applied ethics in software engineering education is to equip professionals to recognize and reason about ethical issues in practical situations. All three address the question of how best to do so, from different but complementary perspectives: the case-based approach to ethics (Leslie Burkholder), practical methods for ethical reasoning (Preston Covey), and models for integrating ethics in software engineering curricula (Donald Gotterbarn).

Cases in Software Engineering Ethics

Leslie Burkholder
Carnegie Mellon University

Applied or professional ethics courses typically include the discussion of cases or dilemmas intended to raise issues that professionals will encounter in their working lives.

There is a good reason for this, as I shall explain in my presentation. There is some evidence that case-based discussion of ethical issues has a beneficial effect on the ethical reasoning abilities of the participants. The evidence is not unequivocal and more research needs to be done.

I will also give an example of what the discussion of particular cases in software engineering ethics might involve. The case I discuss is a variant of one found in the Parker, Swope and Baker collection, Ethical Conflicts in Information and Computer Science, Technology, and Business (Menlo Park CA: SRI International, 1988):

A software engineering firm has been contacted by a bank to provide an automated teller service with speech-recognition and
voice-response capabilities. No capability is to be included which would let a bank customer know whether a particular conversation is with the device or a person. In fact, the bank's requirements are that the automated teller should perform in such a convincing way that its customers will believe that they are dealing with a person even when they are dealing with the device.

A discussion of this case would certainly consider the following matters: (1) Is the bank planning to do anything ethically questionable? (2) Suppose someone (the bank, in this case) is doing or planning to do something wrong. Wouldn't it be wrong to help (by writing the software)? (3) Suppose several competing software firms would do the work for the bank were this one to refuse. Would that make any ethical difference in what the firm should do? My presentation will illustrate what can be learned from such discussion and how it might be conducted.

Methodology for Applied Ethics

Preston Covey
Carnegie Mellon University

Several years ago in a Wall Street Journal article, "When Values Are Substituted for Truth," William J. Bennett related an ironic and telling conversation from an ethics class; I paraphrase:

Student: I don't think you can teach ethics because there really aren't any in any real sense. Each person's values are as good as anybody else's. Values are subjective.

Teacher: No, that's not true. Some people's values are better than others.

Student: No, they're subjective. No one can impose his values on somebody else.

Teacher: Well, what do you think of this? I say values are not subjective and, if you don't agree with me, then I'll flunk you.

Student: You can't do that! Are you crazy?