

NAS 501 Research Methods and Scientific Ethics

Chapter 2: Types of Ethics

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The Business Model

According to the business model, an occupation is primarily oriented toward making a profit within the boundaries set by law.

Just like any other business, a profession sells a product or service in the marketplace for a profit; the major constraint on this activity is regulation imposed by law.

If people ordinarily called professionals, such as doctors, lawyers, or engineers, followed this model, their claim to professionalism would be severely limited.

They might choose to adopt the trappings of professionalism, but they would do so primarily as a means to increase their income and protect themselves from governmental regulation.

The Professional Model

This model offers a quite a different picture of occupations such as medicine, law, and engineering. Crucial to the professional model is the idea that engineers and other professionals have an implicit trust relationship with the larger public.

The terms of this trust relationship, sometimes referred to as a “**social contract**” with the public, are that professionals agree to regulate their practice so that it promotes the public good.

In the words of most engineering codes, they agree to hold paramount the safety, health, and welfare of the public.

That is, they agree to regulate themselves in accordance with high standards of technical competence and ethical practice so that they do not take unfair advantage of the public.

They may agree to governmental regulation, for example, by state regulatory boards, because they believe that it is the most effective and efficient way to preserve this trust relationship between themselves and the larger society.

Types of Ethics or Morality

- How does **professional ethics** differ from other types of ethics philosophical ethics, business ethics, personal ethics, and so on?
- In answering this question, it is helpful to distinguish between three types of ethics or morality:

Common Morality is the set of moral beliefs shared by almost everyone.

It is the basis, or at least the reference point, for the other two types of morality that we shall discuss.

When we think of ethics or morality, we usually think of such precepts as that it is wrong to murder, lie, cheat or steal, break promises, harm others physically, and so forth. It would be very difficult for us to question seriously any of these precepts.

Personal ethics or personal morality is the set of moral beliefs that a person holds.

For most of us, our personal moral beliefs closely parallel the precepts of common morality. We believe that murder, lying, cheating, and stealing are wrong. However, our personal moral beliefs may differ from common morality in some areas, especially where common morality seems to be unclear or in a state of change.

Professional ethics is the set of standards adopted by professionals insofar as they view themselves acting as professionals.

Every profession has its professional ethics: medicine, law, architecture, pharmacy, and so forth.

There are several important characteristics of professional ethics

First, unlike common morality and personal morality, professional ethics is usually stated in a formal code.

Second, the professional codes of ethics of a given profession focus on the issues that are important in that profession.

Third, when one is in a professional relationship, professional ethics is supposed to take precedence over personal morality—at least ordinarily.

Fourth, professional ethics sometimes differs from personal morality in its degree of restriction of personal conduct. Sometimes professional ethics is more restrictive than personal morality, and sometimes it is less restrictive.

Fifth, professional ethics, like ethics generally, has a negative and a positive dimension. Being ethical has two aspects: preventing and avoiding evil and doing or promoting good. Let us call these two dimensions the two “faces” of ethics: the negative face and the positive face

Role morality is the name given to moral obligations based on special roles and relationships.

One example of role morality is the set of special obligations of parents to their children. Parents have an obligation not only not to harm their children but also to care for them and promote their flourishing.

Another example of role morality is the obligation of political leaders to promote the well-being of citizens.

Three character traits that might be a part of such a **professional character portrait.**

The first professional character trait is **professional pride**, particularly pride in technical excellence.

If an engineer wants her work as a professional to contribute to public welfare, the first thing she must do is be sure that her professional expertise is at the highest possible level.

Professional expertise in engineering includes not only the obvious proficiencies in mathematics, physics, and engineering science but also those capacities and sensitivities that only come with a certain level of experience.

The second professional character trait is **social awareness**, which is an awareness of the way in which technology both affects and is affected by the larger social environment.

In other words, engineers need an awareness of “social embeddedness” of technology.

Engineers as well as the rest of us are sometimes tempted to view technology as isolated from the larger social context. However, the engineer who is sufficiently aware of the social dimension of technology understands that technology both influences and is influenced by the larger social context.

We believe that such social awareness is an important aspect of a professional character that will take seriously the obligation to promote public welfare through professional work.

A third professional character trait that can support aspirational ethics is an **environmental consciousness**.

Environmental issues will increasingly play a crucial role in almost all aspects of engineering. Increasingly, human welfare will be seen as integral to preserving the integrity of the natural environment that supports human and all other forms of life. Eventually, we believe, being environmentally conscious will be recognized as an important element in professional engineering character.

Educational Concerns Case Study: Whistle Blowing

A graduate student has been working in a lab for a year on what she hopes will be her Ph.D. dissertation research. She has been troubled for the last several months by the possibility that her advisor may be manipulating data used in his publications. This past week, she has just discovered what she believes to be incontrovertible evidence that some of his published data had in fact been fabricated.

Questions

- What should she do?
- With whom should she discuss the issue, if anyone?
- Is there a designated person at your institution to deal with such issues?

Reference:

Engineering Ethics: Concepts and Cases,
Fourth Edition

Charles E. Harris, Michael S. Pritchard,
and Michael J. Rabins

Chapter 1