Chapter 10
Cybernetics, Cyberethics, and Technologically Enhanced Learning

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ABSTRACT

Cybernetics is the science of communications and control. It has been applied to everything from household thermostats to non-verbal communication. Ethics is the study of beliefs about right and wrong thought and behavior. The synthetic subfield of cyberethics deals with the application of ethics to the technologies and practices of cybernetics. This chapter will explore a definition of cybernetics that goes beyond its association with computers, information networks, and the rights, roles, and responsibilities of people involved in information technology. This more adventuresome approach will embrace broader themes in education and offer insights into the "box" outside of which we are relentlessly being told to think.

INTRODUCTION

The conventional method of writing about applied ethics and, in this case, ethics as applied to the relatively new domain of cyberethics is first to set out a brief definition of ethics, to discuss some common ethical theories, and then to examine the particular field to which ethics are to be applied. A general description of the field——very often a profession, institution, industry, social service or technological innovation——and the special ethical problems which it both raises and faces are then laid out. The narrative typically goes on to explain in some detail the pertinent

issues about which ethical arguments are made and to offer conditional solutions to salient problems or dilemmas.

So, business ethics may focus on questions of integrity in advertising, industrial health and safety, fiduciary responsibilities, and so on. Similarly, legal ethics might involve obligations to uphold judicial integrity, maintain client confidentiality, and exercise due diligence while acting on a client's behalf. Likewise, research ethics could include the need to obtain informed consent from human subjects, report results honestly, and avoid plagiarism. Like business, legal and research ethics, cyberethics involves the philosophical study and the practical application of normative standards to a specific kind of human project. The implicit assumption is that there are generalizable if not necessarily universal principles of right and wrong which can and should guide the attitudes and actions of practitioners in identifiable areas of human endeavor. Often, the codification of an inventory of aspirational or enforceable ethical standards is seen as heralding the successful completion of an inquiry.

To say that there may be different ethical rules for kindergarten teachers, electricians and secret agents is, of course, not an invitation to excessive or unlimited cultural relativism and the subsequent logical risk of nihilism. The idea is not so much that ethical rules vary depending on whether one is a banker-or an Emergency Room nurse such that what is acceptable for one is unacceptable for the other; rather, it is that certain ethical precepts may have particular bearing and make greater or lesser demands upon different people in different circumstances.

There are, of course, sometimes contradictions and consequent controversies. In principle, we may agree that telling a lie is unethical unless exigent circumstances dictate otherwise and then we can debate endlessly the question of whether certain specific circumstances were of sufficient import to allow the honesty rule to be bent, broken or jettisoned. For example, when questioning an accused criminal, it is generally acceptable (at least under the law) for police officers to lie to a suspect in order to extract a confession, whereas in commercial sales, it is generally unethical and potentially criminal to lie to a customer about the roadworthiness of a used automobile or the safety hazards of a child's toy. It's complicated.

One way or another, however, ethical standards are derived, however vaguely, imprecisely and inconsistently from larger social conversations about morality, legality, cultural norms and, often, theological determinations of good and evil, as well as about the various ways to tell the differences among them. What is right or wrong, on whose authority and what criteria should be applied to come to a legitimate decision on such matters are all involved in ethical deliberations.

While it is true, incidentally, that conceptual distinctions are sometimes drawn among values (general social norms), morals (mainly substantive judgements such

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