Technoethics: The Dilemma of Doing the Right Moral Thing in Technology Applications

Peter B. Heller, Manhattan College, USA

ABSTRACT

Technoethics relates to the impact of ethics in technology, technological change, and technological advances and their applications. This is true both in established fields such as bioethics or computer ethics or engineering ethics but also in new areas of research such as neuroethics. As pioneering breakthroughs are made in, say, extending life or robotization, novel questions arise regarding the rightness or wrongness of keeping terminal cases alive even at the expense of such trade-offs as making life possible for premature or defective babies in the first case or replacing workers in the second. Some of these agonizing dilemmas are treated in the paper highlighting the ambivalence and difficulty – and corresponding controversy – in reaching ethical decisions in technological applications.

Keywords: Cloning, Computer Ethics, Conceptive Technology, Contraceptive Technology, Diagnostic Technology, Ford Pinto Automobiles, Technoethics

INTRODUCTION

The term “technology” (or its abbreviated prefix “techno”) can be defined in a variety of ways. An acceptable one is that it is a systematic knowledge and applications that can describe any recurrent activity closely related to science and engineering and viewed as providing the means of doing useful work. Technology may be embodied in a physical reality or in a method, technique, or know-how.

“Ethics” may be defined as a code or set of principles by which people live. Ethics is about what is considered to be morally right and wrong. When people make ethical judgments, they are voicing prescriptive or normative statements about what ought to be done, about moral duty and obligation, not descriptive statements about what is being done.

Thus, individuals face ethical dilemmas in various real-life situations as discussed below; they tend to make judgments about what is right and what is wrong. There may be differences in viewpoints because individuals find it hard to explain the rationale behind their subjective or moral judgments. It is often difficult to conclude what ought to be the most appropriate behavior. Ethical theory, then, or moral philosophy, is the study of the rules or principles that lie behind moral decisions, a rationale for moral judgment. The latter enables one to defend or oppose a particular position on a given issue. Thus, the use of ethical theory can help users, even to the point of determining how people ought to
behave in various applications of technology. Accordingly, technoethics is that interdisciplinary area which tries to determine an appropriate viewpoint or attitude or philosophy in the application of technology to real-life situations.

Among several ethical theories, the ones most relevant to technological applications are consequentialism, deontologism, and utilitarianism. Consequentialism has it that an action is right or wrong depending upon its consequences, its outcomes, such as its effects on society. Thus, those who believe in consequentialism will support any action or the use of a product if, in their opinion, outcomes have been made according to some defined criterion or trade-offs. Deontologism, in contrast, stresses the intrinsic character of an act and disregards motives or consequences. In this view, some actions are right or wrong in themselves, either inherently or on the basis of the originator’s intention regardless of the circumstances or outcomes that are brought about. Utilitarianism argues that everything in life is done to create happiness. Since this is the ultimate goal of humans, all actions must be assessed according to whether they increase or decrease human happiness, the feeling of well-being, of euphoria.

**Medical Technology and Ethics**

Nowadays, on average, people are doing better in terms of their health but possibly also doing worse because they are more aware of their condition than in the old days, of the many things that could go wrong with them. One of the reasons is that they have become sensitized to a large number of variables flowing from numbers and terms resulting from all kinds of tests and correlations yielded by many medical processes with the help of technological instruments, many of them high-tech. These may be X-rays, CT (Computer Tomography) scans, PET (Positron Emission Tomography) scans, MRI’s (Magnetic Resonance Imaging), and ultrasound machines not to mention blood tests and other routine procedures. This happens because imaging the body with the results fed into a computer have transformed the patient, that is to say the real patient, into a record. The result is both the urge to accuracy and additional detail and the greater ease of diagnostics and treatment. The machine makers who manufacture and sell this hardware and software and medical providers who use them both make a lot of money in their respective functions, and so do the hospitals and laboratories. The medical caregivers are also intimidated by the possibility of malpractice suits by patients, which increases the former’s insurance premiums at times to six-figure amounts a year.

Still, the fact remains that all of the above make the greater number of tests of all kinds a growing routine in American healthcare. The resulting overall cost is the highest in the world, both per capita and in the aggregate. The pressure on government finances and the inflation that may result are some of the relative effects of the system. Thus, whereas in the old days physicians used to examine the patient with their fingers and ears close to, say, the subject’s chest—or maximally use a stethoscope to detect any malfunction with the subject’s heart, circulatory, respiratory, and other biological systems—currently the assembly-line medicine, promoted and speeded up by various health insurance schemes and incentives, encourages “throughput.” The latter involves getting the best results from blood tests to colonoscopies and everything in between.

Yet, diagnostic readings may be in error, and there is unnecessary testing and exposure to radiation and other side-effects of the procedure such as the false-positives shown by the scans or biopsies. Accordingly, because of some tests, unnecessary mastectomies and radical prostate surgeries (among others) are being performed. As a physician opposed to all this high-tech medicine put it, the patient is lost amid the wiring. But there is something else. Thanks to the various devices for inputting information, the doctor often is more focused on that drill than in listening to the patient. Frequently, physicians engage in multitasking, for instance, hitting the keys of their computer while trying to, at the insistence of the patient, have some...
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