Chapter 2

Technoethics

INTRODUCTION

Being an affectionate parent does not exculpate any crimes; being a competent engineer does not confer rights of piracy on the environment; being an efficient manager does not entitle him to oppress others. Every human being has a number of intertwined responsibilities and each of them is as personal and intransferable as a joy or grief. --Bunge, 1977, p. 96.

A major struggle within our evolving knowledge society is that increasingly potent scientific and technological growth is forcing individuals to re-examine how technology is viewed. This is especially salient in the pure and applied sciences where technological developments offer ways to surpass current human capacities and

affect life in ways that were not imaginable fifty years ago. New breakthroughs in medicine, information and communication technology, transportation and industry are juxtaposed with growing needs to deal with moral and ethical dilemmas associated with new technological developments. Increased reliance on new technology creates fundamental challenges revolving around security and privacy issues, access issues to education and health care, legal issues in online fraud and theft, employer and government surveillance, policies issues in creating and implementing ethical guidelines and professional codes of conduct, along with ethical dilemmas in a number of vital areas of research and development.

Juxtaposed with the coming of powerful new scientific and technological advances, is a major push to rediscover the ethical dimension of technology across the sciences, social sciences, and humanities. Literature on ethics and technology are in abundance which focus on key areas of technology and ethics; *Ethics and Technology: Ethical Issues in an Age of Information and Communication Technology* (Tavani, 2007), *On Technology, Medicine and Ethics* (Jonas, 1985), *Information Ethics* (Floridi, 1999), *and Computer Ethics* (Johnson, 1985). However, there is no authored book on ethics and technology dedicated to the diverse areas of research and theory in use today.

Surmounting debates and scholarly inquiry across multiple disciplines and applied fields of study connected to technology form the basis of an emerging field known as Technoethics (TE). Technoethics (TE) is concerned with all social and ethical aspects of the design, development, utilization, management, and evaluation of science and technology in society. As an interdisciplinary field, it utilizes theories and methods from multiple knowledge domains to provide insights on ethical dimensions of technological systems and practices for advancing a technological society. Technoethics provides a systems theory and methodology to guide a variety of separate areas of inquiry into technology and ethics (see Chapter 5). As it is developed in this text (see Chapter 4), technoethical inquiry is a systems theory and methodology for guiding technological systems research and practice in key areas of human-technological activity (I.e, technology assessment, technology design).

As will be discussed in this chapter, Technoethics derives from a longstanding history of scholarship in ethics, applied ethics, philosophy of technology, and technocritical writing in the humanities. The emergence of Technoethics as a formal field can be connected to a marriage of scholarship on technology and ethics that spread from specialty areas within philosophy to other disciplines concerned with social and ethical issues regarding technology. This marriage placed social and ethical questions about technology on new ground and provided new opportunities that crossed disciplinary boundaries. This eventually led to the emergence of Technoethics as a field of interdisciplinary scholarship to help ground a number of areas of technoethical inquiry that previously were separate and isolated programs.

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