Chapter XLIV
Technoethics in Schools

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ABSTRACT

School students are used to digital technology-they blog, create movies for public viewing on the web, create and download music and use instant messaging to communicate with their friends and family. Whilst today's students are technologically capable, perhaps more so than their teachers and parents, they might not know how to legally and ethically interpret and use digital resources and materials. Teachers need to understand the social, ethical, legal and human issues that surround the use of digital technology in schools and then apply that understanding to help students become technologically responsible, and so to ensure that they, the workers of tomorrow, have the critical thinking and communication skills to match their technical skill.

INTRODUCTION

Most areas of modern life are affected by digital technology. This pervasive and rapidly developing technology gives us rapid and easy access to information, and presents new challenges to society's values and ethics, challenges within our homes, schools and places of work. As the technology develops we need also to develop our laws, policies, personal skills and attitudes to foster its desirable aspects and mitigate its undesirable aspects.

In the field of education teachers must work with students towards the safe, legal and ethical use of digital resources and in particular of Inter-net based resources. The teacher and the school must ensure that students use digital resources legally and ethically. This chapter aims to highlight current practice and research as it pertains to educational technoethics, and along the way to stimulate thought on the topic of educational technoethics. This will be done by exploring selected examples of technoethics in the context of schools.

The study of ethical and social issues in relation to technology is clearly interdisciplinary in nature, involving research and practice from a variety of disciplines such as philosophy, theology, history, sociology, anthropology, psychology and education. This chapter will argue that to understand

educational technoethics fully, and to use digital technology effectively and ethically, three related dimensions—the technical, the social and the ethical—must be considered. To understand the techno- and socioethical aspects of using technology, working definitions of education, technoethics and digital technology are needed.

In this chapter, *education* will refer to the teaching in the compulsory years of schooling—typically 5–18 years of age—while *digital technology* will refer to a wide range of computing and communication devices, from stand-alone computers through to 'networked' computers and communication devices. This definition encompasses personal computers, laptops, mobile digital devices such as Palm Pilots and smart phones through to networked devices that can be connected together or to the Internet or other networks. Within this book's overall definition of technoethics (TE), for the purposes of this chapter TE refers to the ethical issues and outcomes associated with using digital technology in a school system.

As technology evolves we are finding more ways of applying it in our daily lives. For the purposes of this chapter the technology considered is digital technology, within which computers, the Internet and mobile communication devices will be of primary concern.

Weiser (1993) professes that the most profound technologies are those that disappear into our everyday operations, to the point of becoming universal as well as invisible. It may be this disappearance that makes some people act unethically. The whole notion of working and acting ethically with technology is questionable due to the notion of what is ethical and what is unethical. In its purest form ethics comes from an innate sense of how to behave and underpins our notion of equity. Equity in turn underpins our notion of fairness and justice.

An ethical dilemma or an unethical act occurs when individuals with different points of view consider issues parochially and make judgments based on their own points of view. A point of view is determined by individual characteristics such as race, gender, cultural group, religion, education, socio-economic status and age to name but a few. For technology, as for other issues, it is important to understand one's own ethical viewpoint and it is just as important to consider other points of view. This is particularly so because digital technology, in particular Web technology, is global, and the political, cultural and educational levels of people using digital technology are extremely diverse.

Thus each individual has their own ethical point of view that is dependent on aspects such as their race, political persuasion, cultural identity and education. Of these aspects we will argue that it is education that has the greatest potential to inform and influence one's ethical point of view. Educators traditionally have built on the values and beliefs that students are already forming when they come to school. The role of education is therefore to start from the student's initial capabilities and beliefs, and to teach ethics firstly as it relates to the individual and then as it relates to higher societal levels.

According to Moor (2005) new technologies never start in a fully mature form, but are continually developed. Technological development goes through three stages: introduction, permeation, and power (Moor, 2005, p.112). Digital computers are arguably in their power stage as they have been widely adopted by society and are used in almost all industries. The Internet and mobile communication devices, however, are in the permeation stage as they are still being developed and adopted, and their full power may be yet to come.

Within education, much attention has been focused on the problem of academic dishonesty, in particular on plagiarism from the Internet and the illegal copying of files. At the university level, several studies have shown that academic dishonesty is common (Ashworth, Bannister, & Thorne 1997; Lathrop & Foss, 2000).

Building student understanding and reasoning in ethics has long been a challenge for teach-

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