

Lecture: 37

Course Title: Science, Technology and Society

In the Aristotelian vision this is the capacity to guide oneself by using reason. In modern times the same connection is made, as this capacity is seen as the foundation of human dignity, and it has led to the conceptual foundation of human rights. One therefore could say that a certain behaviour or choice is ethical if it is in accordance with reason and thereby in accordance with the dignity of human nature. Now in a technological age we can take Aristotelian version of ethics as ‘welfare ethics’ that also deals with virtues and excellence in human management. That way . we may look for the virtuous use of technology as related to human welfare as our ethical priority. An optimistic definition of a new way of looking at ethics is given by J.L. Lorda: “Ethics is the art to live well”. Focusing on our specific field of interest one could say that ethics in connection with technology is the art to make good use of technology.

What it is to imbibe the art of good use of a new technology like Information and communication technology? Why we need to be cautious in using technology as a tool that can be used or misused? The growing information revolution, therefore, is not ‘merely technological’ it is fundamentally social and ethical. The reason why information technology is so powerful is well explained by James Moot in his classic article "What is Computer Ethics"? ‘The computer’, he says, ‘is almost a ‘universal tool because it is ‘logically malleable,’ it can be shaped and moulded to perform nearly any task.“ This has some implications to our understanding of the terms like person, privacy, freedom, sense of shame or of guilt etc.

Information technology (IT) has caused and will continue to cause enormous changes in the ways we do things. Very often, the introduction of new technologies results in dramatic alterations in old ways of relating to each other. Examples range all the way from entirely new ways of meeting romantic partners to making travel arrangements; from new ways of connecting with suppliers to entirely new kinds of

businesses. It is, therefore, only to be expected that IT produces new challenges and issues for us to deal with ethically.

Issues about privacy, security, piracy, and ownership take on new aspects when *applied* to new IT applications. So far, in discussions of ethical issues of IT, these types of issues have been the most discussed. Yet other important issues that raise difficult ethical problems also need to be addressed, for example, the outsourcing of high-level jobs and the value of information technology itself. In a sense the taken for grantedness of what it is to be shifts and blurs as we now aim for machine perfection, and our role model is super fast machines and super fast computers. We are machine-like aspiring for a post human future in which there is hybridization of human identity as the dreams of merging humans and machine has already materialized in our new avatars as cybros. This mechanization process is so complete now that even if a job be not eliminated it can be radically altered and we have also learnt to change our vocabulary to suit the image of a machine-man.

One of the basic postulates for traditional ethics is the postulate of human freedom and agency that keeps responsible human agency at the center. Does this claim for ‘new ethics’ is an effort on our part to replace human agent with a power that thinks as efficiently and as technically as a machine? In the early days of AI, Weizenbaum warned us against giving machines the responsibility for making genuinely human choices. Computer Power and Human Reason raised questions about the role of artificial intelligence and spurred debate about how man relies on technology in order to escape the burden of acting as an independent agent, and in deciding and pursuing what is truly valuable. These issues are becoming more and more urgent as technologies converge and become increasingly embedded and integrated in all facets of our lives.

The critical feature of modern technology is its willingness to treat anything as a resource to be reordered in the furtherance of human aims. Heidegger, in his essay *The Question Concerning Technology* (1955), concludes that modern technology is an independent force in human existence. It builds a new and incompatible order on top of what was

there, primarily in order to extract and store energy for later uses. The point of view of modern technology regards everything as a potential resource, as “standing reserve” to be used or reused later in other processes of the same kind. A forest has status only as a timber resource. Land itself is only a resource for the building industry. Even human beings themselves, from this point of view, become “human resources.” Or they become “consumers.” Or ill people become a “supply of patients for a clinic.” Many distinctive modern technologies embody this notion of “standing reserve” in their very conception. Thus, electric power, whether in the form of available current or batteries, is always entirely standing reserve, on hand for potential use.

For example, airline pilots still seat at the controls of the commercial airplanes ;but during much of a flight the pilot simply watches as computer flies the plane. Similarly those that prepare food in restaurants or make products in factories may still have jobs; but often they simply push buttons and watch as computerized devices actually perform the needed tasks. In this way it is possible for computers to cause “de-skilling “of workers, turning them into passive observers and button pushers. Another workplace issue concerns health and safety.” As Forester and Morrison point out, when information technology is introduced into a workplace, it is important to consider likely impacts upon health and job satisfaction of workers who will use it. It is possible ,for example, that such workers will feel stressed trying to keep up with high speed computerized devices – or they may be injured by repeating the same physical movement over and over –or their health may be threatened by radiation emanating fro computer monitors.”

Special threat is posed on the way we define and understand certain terms like privacy, human dignity etc. and the impact these particular ways of defining these terms had on our understanding and our interpersonal relationships that had some kind of moral binding. One way of defining privacy may be called the utility conception, that seeks to minimize intrusion. What we mean by privacy is our need or our desire to be left alone, not interfered with, not troubled. The second conception tracks dignity. One major concern for the upholders of the new ethics claims is related to newer issues like

encroachment of privacy in this new age of new and bold technology and its possible impact on the human dimension of life.

Richard Spinello (1995), a computer ethics expert rather than a lawyer dwells at length with ethical aspects of information technology to privacy in what he calls the "information age. His real focus is what he sees as threats to traditional notions of privacy in technologically advanced societies. Spinello concludes: "The extensive sharing of personal data is a clear example of how the erosion of privacy leads to the diminution of that freedom".¹ Spinello clearly agrees with these novelties, and he ends his conclusion this way: "These and other proposals incorporate principles of data protection that are seen as critical for safeguarding privacy".²

Personal privacy, here, is an old principle, but Spinello is saying that new principles of data protection are needed to safeguard it. Distinctive computer ethical concerns are of diverse kinds. First and foremost concern for ethics is to address the technical aspects of some such concerns that may have a technical solution. There is also growing public interest in such areas as computer viruses, the dangers of the Internet for children and adults at times, Internet romances, hacking and computer fraud. We can presume that our prime ethical concern has remained how best to address issues related to computer crime and security by imbibing sophisticated softwares and other counter measures to protect information data at the face of computer viruses, 'spyware, phishing and fraud schemes, and hacking activity from every location in the world'.

However such problems become more acute when besides outsiders and hackers 'many computer crimes, such as embezzlement or planting of logic bombs, are committed by trusted personnel who have authorization to use company computer systems.' This need for overall vigilance on all fronts gave rise to the distinctive field of ethics called computer ethics particularly related to workplace issues of various kinds including health and safety of the workers and the nature of psychological impact of prolonged or routine

¹ Richard Spinello, *Ethical aspects of information technology* Prentice Hall, 1995 – pp.120-121.

² Ibid. p. 124.

use of computers on the physical and mental health of the users. It is possible ,for example,that such workers will feel stressed trying to keep up with high speed computerized devices –or they may be injured by repeating the same physical movement over and over –or their health may be threatened by radiation emanating from computer monitors. Computer Ethics is bound to address such vital issues in a new ethics is needed.