



Conference

Cyberetics: Ethics in the Age of Technology

Saturday 16/01/2010, Sala Petrassi, h 18-20
Viale Pietro de Coubertin 30 - 00196 Roma
Ticket: 2.00 euro (Ticket Office 0 - 6892982)

Program

- Gianmarco Veruggio "Introduction to the Round Table""
- Terrell W. Bynum "Ethics and the Information Revolution"
- Gianmarco Veruggio "Roboethics: Ethical, Legal and Social Issues of Robotics"
- James H. Moor "The Coming Computer Enhancement of Humans"
- Giuseppe O. Longo "Ethical and Social Issues in the Age of Homo Technologicus"
- Debate (Q&A with the audience)

Ethics and the Information Revolution

Terrell W. Bynum

Professor of Philosophy, Director of the Research Center on Computing and Society at Southern Connecticut State University, New Haven, CT, USA

In the mid 1940s, innovative developments in science and philosophy led to the creation of a new branch of ethics that would later be called "computer ethics" or "information ethics". The founder of this new philosophical field was the American scholar Norbert Wiener, a professor of mathematics and engineering at MIT. During the Second World War, together with colleagues in America and Great Britain, Wiener helped to develop electronic computers and other new and powerful information technologies. While engaged in this war effort, Wiener and colleagues created a new branch of applied science that Wiener named "cybernetics" (from the Greek word for the pilot of a ship). Even while the War was raging, Wiener foresaw enormous social and ethical implications of cybernetics combined with electronic computers. He predicted that, after the War, the world would undergo "a second industrial revolution" — an "automatic age" with "enormous potential for good and for evil" that would generate a staggering number of new ethical challenges and opportunities. Along Wiener's bright visions, in the past decade, a new theory of human nature that has begun to emerge from the Information Revolution, as well as the fact that this new theory makes human beings and artificial agents much more similar to each other than people used to think. Today, ethics for human beings and ethics for artificial agents have become intimately intertwined.

Roboethics: Ethical, Legal and Social Issues of Robotics

Gianmarco Veruggio

Roboticians, CNR IEIT, Genoa, Italy, and Founder of School of Robotics

Roboethics is an applied ethics whose objective is to develop scientific-cultural-technical tools that can be shared by different social groups and beliefs. These tools aim to promote and encourage the development of Robotics for the advancement of human society and individuals, and to help preventing its misuse against humankind. It shares many "sensitive areas" with computer ethics, information ethics and bioethics. According to the definition, Roboethics is not the "Ethics of Robots", nor any "ethical chip" in the hardware, nor any "ethical behavior" in the software, but it is the human ethics of the robots' designers, manufacturers and users. An Ethics which could be shared by most of the cultures of the world, and capable of being translated into international laws that could be adopted by most of the nations of the world. But, because we said that there are big differences in the way the human-robot relationship is considered in the various cultures and religions, only a large and lengthy international debate will be able to produce useful philosophical, technical and legal tools.

The Coming Computer Enhancement of Humans

James H. Moor

Professor of Philosophy, Dartmouth College, Hanover, NH, USA

Should we let computers get under our skin? A common complaint about ethics is that it does not keep up with technology. Implicit in the remark is the suggestion that ethics could keep up with technology if only ethicists, policy-makers, legislators, theologians, or perhaps people in general should think more about ethics. To an extent this suggestion is correct. We should do our best to anticipate technological change and put policies in place to accommodate it. However, ultimately ethics will always lag behind. We cannot foresee all technological changes and consequences accurately or precisely. We possess well-established ethical concepts and principles, but application of ethics requires interpretation and analysis of situations as well as knowledge of concepts and principles. When new technology generates novel situations, as it usually does, we need to assess afresh what we should do. Hence, we should expect that setting ethical and legal policies for ICT implants will be a dynamic enterprise. We can and should begin to frame such policies, but we must remind ourselves that the job will be ongoing. I expect ICT implants to be an evolving growth industry that will require the generation and reevaluation of ethical and legal policies for decades, if not centuries, to come. We are now only beginning on what will be a long journey.

Ethical and Social Issues in the Age of *Homo Technologicus*

Giuseppe O. Longo

Full professor of Information Theory in the Faculty of Engineering of University of Trieste

The increasing integration of humans and mind-machines results in a new stage of bio-technological evolution, characterized by the advent of *Homo Technologicus* (or cyborg) and the formation of a *Planetary Creature* where connective intelligence will emerge. Such new beings will exhibit enhanced cognitive abilities, but their ethical sensitivity will be comparatively shallow, since emphasis will be on intellectual performances. This would represent a dramatic change in the development of man. At the same time, mankind will more and more split into two parts, the high-tech part and the low-tech one, with a strong potential for conflicts. Only a keen attention for ethical and social matters could help avoid the dangers inherent in such perspectives.