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## Introduction

### **Educational contexts, dilemmas and controversies in the face of new technologies**

Editors of "Science" have recently developed questions, which in their opinion deserve special attention and are controversial. These questions relate to the problems of the world and human problems: local and global, biology and medicine, human environment and the future of our planet. The most frequently asked questions considered the issues of the relationship of genetic variability with the state of health, the mechanisms of memory and its evolution, causes of biodiversity, the availability of an effective vaccine against HIV, a real possibility of fatal consequences of global warming, cloning or genetically modified organisms.

There are also opinions on social transformation and new civilization of knowledge as the consequences of the technological revolution. Emerging predictions have both supporters and opponents, it is said that information technology supports many scientific fields and research progress is largely the result of the synergy work of scientists and technology. Opponents argue that information technology promotes pseudoscientific ideas and research. It acknowledges the importance of the ethical issues in science and commercialization of research results, which can limit the flow of scientific information and narrow scientific problems to projects applications.

Sociological moral dilemmas are related to issues of functioning and transformation of society, the processes leading to exclusion or social stigmatization to name just two.

One time, sociobiology which adopts, among others, that genes play a fundamental role in shaping human behavior and that there are insurmountable limitations in reducing features such as aggressiveness became a field of great scientific controversies in terms of religion and politics. As bioethical problems there are to be considered such issues as artificial insemination, abortion, cloning, stem cells, genetic engineering, genetically modified foods, trade in tissues and organs for transplantation, euthanasia, environmental protection, ecological ethics, eugenics, prolonging life.

Particular controversies are connected with acts of intolerance, not accepting personal choices of man and forcing their views and the views of other people identified as sexism and racism. These last two are based on the belief of the superiority of one person over another, and supported by the pseudoscientific views promoted by the media can lead to phenomena which should not take place in the 21st century.

Much of the difficulties relate to contemporary education, and the future of young people. Consequently, we need to refer to the problem of teacher training.

That what is very important today is undertaking new solutions and reaching for a new philosophy of teaching and learning.

It is also connected with the functioning of young people in the face of these dilemmas. Roles, tasks and social decisions which are undertaken by the youth are often based on established patterns and relate to the information created by media. These issues also reveal new fields of research and present new directions for research. Another problem is the responsibility of scientific research and ethical research. This assessment in the first place belongs to the researcher and often confronts them with their own system of values and standards of research.

New volume of the *Annales* is an attempt of starting the debate about educational contexts, dilemmas and controversies in the face of new technologies. It applies to both: heritage and present day, social change and sustainability, formal education and informal education, new methods and new environments, inclusion and individualization. What is significant is the fact that the majority of scientists are naturalists – it means that they take into account special problems of the world and human problems in the 21st century. Recommendation refers to real world, as according to an American author, filmmaker, philosopher, cultural critic, essayist, and poet Suzy Kassem's words:

Everybody has a little bit of the sun and moon in them. Everybody has a little bit of man, woman, and animal in them. Darks and lights in them. Everyone is part of a connected cosmic system. Part earth and sea, wind and fire, with some salt and dust swimming in them. We have a universe within ourselves that mimics the universe outside. None of us are just black or white, or never wrong and always right. No one. No one exists without polarities. Everybody has good and bad forces working with them, against them, and within them (Suzy Kassem, *Rise Up and Salute the Sun: The Writings of Suzy Kassem*).

*Katarzyna Potyrała*