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Henryk Noga, Jana Depešová, Piotr Migo Technology and its social and educational influence

Introduction

Technology and its ubiquitous presence causes the functioning in the world of technique to have social and educational importance. These two categories form a sort of a unity. Technology, especially technical devices are affected by the material reality of the world around us, providing us with all kinds of material goods made from elements belonging to contemporary culture, everyday life, creating conditions for the transfer and access to information, communication and entertainment. Therefore, technology is an integral component of our civilization and determines the development of culture. However, in order to understand and live creatively in the existing civilization, you have to know yourself and your needs. At the same time it is imperative to know technology, which is human creativity and realization of human aspirations. Additionally it meets almost every social need.

Technology and Education

The vast majority of people do not understand transformations that take place in our civilization thanks to the overwhelming possibilities of the human brain with the participation of rapidly developing technical means, which facilitate the broadly understood growth of society. With the help of the technical measures, numerous devices and tools have been created owing to the possibilities of sight, hearing, touch, and brain efficiency.

Thanks to the development of these features in the construction of machines can be realized. Human sensors organs have been enhanced by the sensitivity of optical, acoustic and measurement instruments, motor skills are fully utilized due to precision of machine tools and robotics.

Also, the software of computers can quickly, precisely and accurately analyze a specific problem proving a hypothesis true or false. That program, however, is always a human domain. Nevertheless, the computer can make it easier, accelerate and improve the implementation of human ideas. The computer is no substitution for a human. We are witnessing how a man becomes the creator of art in the broadest of meanings. But at the same time, technology gives us the mechanisms that repeatedly exceed the efficiency of human. This process will probably continue. Works of art will in turn affect the development of the new and still unknown efficiency of the human body.

Technology does not have to work in a dehumanizing way. It can also serve humanity but under the condition that it will be used in by those who know the problems of it, understand them, and above all recognize the problems of humanity and see an opportunity for solving them with the use of technology.

Technologies and socio-civilization transformation

Industry provides not only new materials for the good of man but it also introduces new technology, equipment and tools. One can discerned ways of humanization of industry because it serves people with specific occupations. This aspect of humanization indicates that technology serves human. Scientific discoveries are now frequently work of groups of people, while previously they were mostly the achievement of individuals. Humanization is therefore affiliated with socialization.

Industry meets the needs of society in general, however humanists bring into their terminology concepts used in the industry as well. Thanks to the reputation of technology it is possible to expand the humanization of industry, design offices, and departments of technology.

The exponential development of technology implies the modernization of education. It is supported by the development of civilization, science and technology. This allows for the conclusion that it will continue to make huge change in industrial production and art. Almost every young worker at some point in their career will have to change his occupation if they wish to keep up with the pace of constant revolution of the manufacturing industry. This means fluctuations in types of jobs required by the market with the emergence of brand new ones as well.

New technologies and the automatization of production affects not only the intensification of quantity of goods, but also the control system of industrial management and control systems in general.

In traditional professions there is a division of functions: programming, controlling, planning, coordinating, and others. To matter in the industry you constantly need people with broad education and also good preparation in general education. General education includes precision, intellectual and motor skills. The universality of mechanization of daily life manifests in introducing mechanisms facilitating simple work with various equipment and devices accelerating the improvement of human motor function. This proves the necessity of training in technical culture.

When analyzing the problems of production, its organization and trends of modernization, and on the other hand also the requirements of the consumers one can observe an increasing emphasis on accuracy and precision. For such production workers should be prepared both mentally and physically. Training of new employees requires an integrated technical education, in which students practically apply the theoretical knowledge solving complex problems, as well as it requires technology. Students will learn to think both technically and practically in order to operate smoothly (Furmanek 2014).

Therefore what schools have to face is major modernization of polytechnics education, particularly adequate preparation of both material and didactic database. In the future, technical and cultural education of adolescents should be more closely examined starting with the beginning of the process of education. This requires, proper organization and equipment of laboratories with technical tools and machines giving the prospect of personal growth, as well as with semi-finished products and conglomerates for the construction. Nowadays a modern school must take care of the integral development of the student. General education will integrate humanistic subjects with mathematics and technical subjects.

Meeting major requirements by schools is possible thanks to well-prepared teachers. It is preparation, awareness, personal commitment of a teacher that ensures the implementation of the tasks responsible for the creation of a modern school. The role and function of the teacher depends on the degree of involvement in the organization or the degree of supervision of an individual work of a student.

Summary

A student in a modern school with emphasis on technical training will have at their disposal all the necessary technical equipment and tools. Moreover, they will have technical teaching aids for science and experiments. In school the teacher prepares students for a sort of humanization of life in the technical environment. Electronics, automation, process control, gathering information, attempts to programming must be part of education, because they are necessary for almost every profession.

The teacher should be teaching skills and should be responsibility for controlling the production process, and therefore also the formation of technical and production morality. This is because technology and production must be in agreement with the good of mankind. Another necessary component of competence that may be shaped in the education process is the ability to cooperate, as well as responsibility of the actions of an individual person and the whole society.

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Abstract

The omnipresent technology makes the life of a modern man easier. Undoubtedly, it also serves educational and social functions through technical aspects of everyday life, as well as information, way of communication and entertainment. In the study, the focus is also on selected challenges schools face in relation to technology and its role in the socio-civilizational changes.

Key words: technology, education, social and educational influence

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