

Izobraževanje danes za poklice prihodnosti: Izzivi informacijske družbe

Educating Today for Professions of Tomorrow: Challenges of Information Society

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Abstract

When planning educational programmes, choosing the field of studies or planning professional career, it is of utmost importance to take into account not only personal interests and capabilities, but also trends of global industry. It is also necessary to recognise the directions set by the international community (civil organizations, professional associations, environmental organizations and politics). Some professions were very important and progressive at certain time in the past, but have died out due to technical development. On the other hand, some of them, although being very traditional, remain among most important ones for centuries. In the paper we identify several factors influencing the emerging and disappearing professions and discuss them in the context of sustainable development and information society.

Keywords: human resources, professions, sustainable development, information society, knowledge management

Introduction

When thinking which professions will be needed in the future, one must analyze which forces are influencing emerging and dying out of professions and what are present trends in the global economy. It is needed to do so not only because of individual orientation for planning personal professional career but also for planning educational programmes, that will enable future generations with good basis for solving the problems of the future world.

In all human history the professions have been emerging and dying out due to the level of technical knowledge and ownership. In the times of old Egypt there was very important and well appreciated job of scribe, who had the knowledge to write down the quantities of crops, was celebrating the greatness of Pharaoh and Gods. Even today this profession still exists in countries with low literacy but will surely dye out with the introduction of educational programmes

Important changes have occurred in the time of industrial revolution and with the beginning of mass production. The need for new jobs, such as warehousemen and transporters emerged. In the times of rapid development of telecommunications some jobs, as for example telephone operator, have already been replaced by technical solutions.

Despite constant changes some traditional jobs still remain needed and popular and will never be replaced by new technologies. Such jobs are diamond cutters and jewellers, hair dressers, baby sitters, medical doctors. According to present trends some jobs as cashier at shopping malls, film developers, CD sellers and fire fighter pilots are about to die out in the nearest future. (after Forbes, oct. 2007).

In the paper we discuss the trends in present society that will have the most important influence in future jobs, with the emphasis on issues related to sustainable development and information society.

Fast development of production companies that is based on excessive use of natural sources and not rational use of products leads to immense ecological and developmental problems. The issue of sustainable development is discussed in the paper of World commission for environment and development (Brundtland, 1987) that pointed out sustainable development not only as basis for further development but also as only chance for survival. Among other the direct connection between economy and environment is pointed out and that sustainable development means meeting the needs of present generation without endangering the future generations. The UNO in 2002 accepted the sustainable development as best possible basis for operation of all parts of society as well. (Potočan, Mulej, 2007).

Today the world is extremely complex and it is clear that partial problem solving that does not take into account all aspects usually leads to even bigger problems. One of the characteristics of modern world is immense quantity of more or less accessible but dispersed pieces of information out of which it is extremely difficult to create a big picture, important to be able to understand the processes in all their complexity. This is needed when accepting the decisions that will not be soon characterized as partial short-sighted or even completely wrong. (Urbančič et al., 2006, Urbančič 2007). Possibilities offered by computer technology must be used not only for fast access to information but also for their effective analysis and use.

Development of professions: trends and underlying factors

Socially responsible companies

Due to their capital and influence on the society they have through political channels, the multinational companies bare the most of the responsibility for accepting and following the principles of sustainable development.

Unfortunately, in nowadays economy we face the excessive use of natural sources, littering the environment, endangering biotic diversity. The most of the companies today still think, that it is enough to follow the legislation and market rules and do not accept the concept that they must, beside the needs of the company itself meet the needs of the environment: natural and social as well. Nevertheless there are already companies that have accepted the concept of sustainable development and they understand that they bare the part of the responsibility for the development of society and that they must actively contribute to reaching the common goals.

Research has shown that there is a direct correlation between the socially responsible behaviour of companies and their success, while their better reputation contributes to better business results as well. The concept of socially responsible companies is very narrowly connected with the concept of sustainable development. Environmental issues must become the part of strategically planning and incorporated in the very heart of the company's value system. (Kralj, 1999).

Needs of the end-user

All activities of companies are directed toward meeting and satisfying the needs of end-users, offering them products or services. End-users in accordance to the level of their awareness and in accordance with their material and social needs expect products and services that offer bigger security, comfort, quality spending of spare time, use of energy saving devices, access to telecommunications and environment friendliness.

In the developed economy, increasing ecological awareness of end-users will increase the pressure on the companies to offer more and more sophisticated products and services that will meet the expectations of consumers. In the international economy the war for resources is getting more and more obvious and brutal (for example, putting flags in the ocean floor where oil or gas is to be exploited in the future, Greenland, poles) where military forces are used to get or protect influence over natural resources. Due to concentration of capital and therefore influence in the hands of minority, unbelievable differences in the society occur and civil groups are taking over the initiative to change processes in society. In the future the feeling of security and commodity will become more and more important and people will search safe shelter in the privacy of their own homes. Modern telecommunication technology will be accessible to more people and will enable them to reach all kinds of up-to-date information from their homes. This will result in change of working habits as well, while more people will be able to work from home. The consequences will influence the organization and functioning of companies as well. Since people will spend more time at home, the good quality catering, cleaning and health care services will be needed.

Modern economy will have to follow these trends and take into account that the most demanded products and services will be those based on the needs of end-users for:

- rational time spending,
- reducing costs,
- easy usage,
- better safety,
- greater reliability,
- environmental friendliness.

(After www.careerplanner.com)

The demands of the educated end-users will be rational and in accordance with sustainable development. Such end-users will still be in minority for a long time, but nevertheless they will have influence through their big spending potential. The large evolving markets of China and Asia will of course at the beginning accept the consuming mentality. On the long term consuming society has no chance of survival. The cost of producing enormous quantities of waste will have to be recognized and paid, hopefully before critical degradation of our natural environment.

Automation and globalization

Two major trends are to be followed in modern economy:

- automation: consequence is the moving of production into the regions with lower labour costs,
- globalization with consequent moving of services: due to English language as lingua franca all kind of services can be offered globally.

Both above mentioned trends are possible only by support and extensive usage of information and communication technology, that enables permanent access to almost any part of the developed world. The internet plays most vital role in connecting individuals all over the world and exchanging information.

Related issues include the demography, stage of development of economy, educational system, ability of transferring knowledge into economy, safety, culture and religion of certain geographical regions. The aging of population, technological development, telecommunications, energetic and environmental issues are therefore the most important topics that companies must incorporate in their strategic plans.

Jobs of the future

Regarding the development of the new technologies, demographical trends, safety issues and demanding and educated end-user, the most promising jobs will be in following sectors:

- safety and comfort of the home,
- healthy life style,
- care of senior citizens,
- pleasure and free time,
- craftsmanship
- informatics and telecommunication,
- transport and logistics.

The projections show that in 2012 in developed Western World 7 of 10 new employments will be in health and care sector since the baby boom generation will reach the senior stage of life. Those jobs cannot be replaced by technology or automation, but can be greatly supported by information and communication technologies (Collste et al., 2006).

It is expected that for 8 out of 10 new employments in that time at least the higher education will be required.

Swiss research institute Prognos has published a research, analyzing which jobs will be most sought after until year 2020. The following jobs were ranked very high (after the research of Prognos Institute published in Focus, 2004, www.focus.de/finanzen):

- industrial engineer
- hospital manager
- air flight control
- IT project manager
- reinsurance specialist
- auditor
- legal advisor
- logistics expert
- programmer, software developer
- system administrator
- aircraft ignore
- mechanical engineer

The list of perspective jobs includes also: truck driver, medical nurse, sustainable development consultant, experts for holography, database manager, dental assistants, physiotherapists, personal trainers, home assistants, caterers, eco-layers.

Some analyses try to foresee the development of entirely new professions, based on new technologies, environmental demands and demographic trends.

Forbes magazine discusses following new jobs as something very usual in the future:

- quarantine specialist,
- specialist for managing sank cities and coastal areas,
- mechanic for home robots,
- animal sitter,
- space excursions guide,
- manager of the hydrogen power stations.

Possible consequences of not following the principles of the sustainable development

If owners of the capital will not recognize the necessity of giving up part of their extra profits in favour of preserving natural sources and environment, in more distant future the environmental conditions will become more severe. The radical changes in ecosystems can occur, also the regions where the majority of food is produced, could be severely damaged. If the consensus on broadest international level is not reached, the excessive use of natural sources could lead to the struggle for pure physical survival.

Educating for the future

In extremely fast changing environment the only way to stay competitive and therefore have the chance of beeing successfull and even, in most extreme situations, to be able to survive is to accept the life-long learning concept.

As Bauman points out in the chapter titled Learning to Walk on Quicksand, in the liquid modern setting education and learning to be of any use, must be continuous and indeed life-long. No other kind of education and/or larning is conceivable; the "formation" of selves or personalities is unthinkable in any fashion other than that of an outgoing and perpetually unfinished re-formation. (Bauman, p.118)

"The consumer is the enemy of the citizen. All over the "developed" and affluent part of the planet signs abound of people turning their backs on politics, of growing political apathy and loss of interest in the running of the political process. But democratic politics cannot survive for long in the face of citizens passivity arising form political ignorance and indifference. Citizens freedoms are not properties acqiured once and for all; such properties are not secure once they are locked in private safes. They are planted and rooted in sociopolitical soil and it needs to be fertilized daily and will dry out and crumble if it is not attended to day in day out by the informed actions of a knowledgeable and committed public. It is not only the tecnical skills that need to be continually refreshed, not only the job-focused education thet needs to be lifelong. The same is required, and with still greater urgancy, by education in citizenship." (Bauman, p.126)

“We need lifelong education to give us choice. But we need it even more to salvage the conditions that make choice available and within our power.” (Bauman, p.128)

For life long-learning the accessibility of information and communication technology is of utmost importance and therefore it will be absolutely necessary for workers in all professions to be able to use it. The educational system must teach people “how to learn”, how to generate, seek, use and transfer knowledge. (Awad and Ghazir, 2003)

Conclusion

Companies need radical change and innovation of management style, including the ethics and actions of all participants to accept and follow the principles of sustainable development. The companies will have to find new balance between their own interests and the interests of the community. (Potočan, Mulej, 2007).

Sustainable development should be studied, researched and thought at universities and research institutions. Answers to open questions should be found and transferred into the economy. Universities and researchers can contribute by publishing of their findings, influencing the new generations of managers, that will understand the importance of the principles of sustainable development and incorporate them in everyday activities into economy.

It is important for long term quality that these principles are accepted worldwide and incorporated in global values. Very important role is played by the education institutions at all levels, and researchers who create new knowledge, not to forget the importance of information and communication technology in the process of creating and spreading new knowledge. Therefore it is of utmost importance that beside new technologies experts of all professions are educated to develop, use and spread knowledge into all pores of society. Beside the knowledge, the crucial role in the future will be played by personal engagement, focus and commitment of professionals.

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