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CHANGING ROLE OF THE INTERNET IN THE LIGHT OF AN INTERNATIONAL CONFERENCE

Abstract/Absztrakt

The Internet is a fundamental infrastructure of the information society. Determining role of it may become increasingly more obvious in the forthcoming years. Its significance can be increased by continuous spreading of the electronic economy and electronic services. With the help of the Internet technology new, cheap and fast, previously could not been imagined economic solutions can be originated, which may basically transform the peoples' life.

Az Internet az információs társadalom alapvető infrastruktúrája. Az elkövetkező években meghatározó szerepe egyre nyilvánvalóbbá válhat. Jelentőségét növelheti az elektronikus gazdaság és az elektronikus szolgáltatások folyamatos térhódítása. Az internet-technológia segítségével korábban elképzelhetetlen, új, olcsó és gyors gazdasági megoldások szülehetnek, melyek alapjaiban formálhatják át az emberek életét.

Keywords/Kucsszavak: *internet, informatics, information society, information ~ internet, informatika, információs társadalom, információ*

INTRODUCTION

The 2008 year can be an introductory of a new turning point, as a result of further dynamic expansion of the Internet and development of technology, which brings about a qualitative change. The Internet can be a primary catalyst in the course of the economical and social globalization of the countries of the Earth. The Internet may facilitate the forming of a worldwide economic competition environment, opening the door for the countries to develop knowledge-based societies. This was recognized by the OECD (Organisation for Economic Co-operation and Development), which deals with the questions that determine the further development of the Internet on a ministerial conference in 2008. This fact and another one, that a process of using the Internet and intranet on a large scale has started in the Hungarian Defence Forces made the examination of this topic current again.

DEFINING FACTORS OF DEVELOPMENT

This article basically deals with two main topics. One is the examination of the role and development of the Internet and the other is functionally connected to this, the connection of the OECD organisation with the Internet and its change. However this publication contains only the author's thoughts arisen during the examination of the topic and the questions to be answered. This is considered the primary aim of this paper, since solutions can only be found by a comprehensive research and an action program but this is beyond the author's competence. According to this, first let us review briefly the organisation of OECD on the basis of data of the Ministry of Social Affairs and Labour. [1]

The Convention of the OECD was signed in Paris in 1960. This economic organisation, originally formed to help administer the Marshall Aid, as a legal successor of the OEEC (Organisation for European Economic Cooperation), founded in 1948, started to operate in 1961. There are currently thirty full members of it, these countries are committed to democracy and market economy, and it has active contact with another seventy states or various non-governmental organisations. Hungary became a full OECD member in 1996. The OECD's headquarters are in Paris, its official languages: French and English. (Founding members: Austria, Belgium, Denmark, United Kingdom, France, Greece, Netherlands, Ireland, Iceland, Luxembourg, Norway, Italy, Portugal, Spain, Switzerland, Sweden, Turkey, USA and Canada, then joined later: Australia, Czech Republic, South Korea, Finland, Japan, Poland, Hungary, Mexico, Slovakia.)

Among the main aims of the OECD are to support economic growth in the member states as well as to reach a high employment level, to raise living standards and financial stability. Cooperation between the member states and the non-members covers wide area of the economic and social life contributing to the growth in world trade and the development of the international economic relations. Considering its activity the OECD is a coordinative organisation, decisions are made by consensus; it has no right to apply sanctions, only moral pressure is used.

The Council and the Executive Committee are the principal organs of the OECD. The Council generally holds a meeting at ministerial level once a year and depending on economic or other topics, financial or foreign ministers participate on it. Directing functions are vested by the General Council consisted of the OECD ambassadors of the member countries. Administrative work is carried out by the OECD Secretariat headed by the Secretary-General, who is appointed by the Council. Professional work is done by more than 200 specific committees of experts and working groups covering almost the whole area of economic and social life (employment, social issues, public health, education, science, innovation, environmental protection, cooperation with developing countries, making free trade).

The OECD's professional background qualifies it for analysing economic and social processes, drawing conclusions, identifying new challenges. Its main activities are collecting comparable statistical data, publishing analyses and forecasts. OECD analyses and assessments are considered normative by the member states' and non-member states' governments as well as the broad expert public opinion. The OECD's activity with governments covers the exchange of information, co-operation programmes, and accurate examination of certain specific fields.

The OECD has been one of the main important factors of the international education from the 1960s. It is a knowledge centre, which was the starting point of numerous new realizations, thoughts, innovations and such values, which had direct influence on the governments' educational views in the developed countries of the world. In the 1960s the OECD was one of the organizations, which provided stringent arguments for those, who saw the education as one of the prime movers of economic development therefore suggested an

extensive educational policy. Later in the second half of the 1970s, after the oil crises, the OECD was one of the intellectual cradles of the paradigm shift in educational policy which resulted in raising such issues like function of education in handling unemployment of youth, more effective cost management or decentralization. An OECD member can be only that country where institutions of the democracy and market economy work dependably.

The other main topic of this article is the role of the Internet, its development and change. Determining factors of further development of the Internet can be defined on the basis of the study of Péter Bakonyi, András György and Beatrix Tóth as follows [2]:

1. As a result of convergence the functionality of the Internet will change.
2. With the help of the so-called 'multiple play' service, transfer of speech, data and broadcasting has become possible on the Internet.
3. The Internet has become an integrated part of the economy.
4. Previously the Internet has already been considered as a critical infrastructure, but nowadays it can be defined as an essential component of other critical infrastructures as well.
5. The profile of the Internet users has changed.
6. Computer science, being everywhere provides new dimensions to the Internet.
7. Our dependency of the Internet is increasing therefore it is more and more important to maintain the integrity of the network.
8. We have to pay more attention for security and threats to it, which appear in many new forms.

According to the first section, the functionality of the Internet can be experienced as the most significant change. In order to understand this section at first we must explain the meaning of the expression of the convergence, because this expression has no precise definition. In this article the definition of the ITB¹ was considered as a starting point. According to it, the expression of convergence is most generally used in the following sense:

- The convergence is the ability of various network platforms, which provide basically similar kinds of services or it is interweaving of consumer devices such as telephone, television and personal computer
- Perhaps the latter interpretation of convergence is cited most frequently in the press- it is easy to understand for the consumers; moreover it reflects the large scale struggle that exists among the trades of computer science, telecommunications and broadcasting for obtaining the control over the future markets [3].

On the basis of all these, the opinion of the OECD can not be accidental that the Internet Economy more and more is an integral part of the present-day, traditional economic and social infrastructure, so the ICT² policy should be considered as a determinant of the present trade-, labour- and financial policy. Considering all these the Internet is more and more essential and its sustainability has become the centre of global interest.

Hereafter let's examine the questions that the OECD deals with in connection with the future of the Internet and how are these questions linked with the factors mentioned in the Hungarian study above. The questions can be grouped in many ways, but it is clear that the main principle is the examination of the changes that promote economic development and social welfare from the point of view of the 'use' of the Internet.

¹ ITB=Informatikai Tárcaközi Bizottság=Inter-departmental Committee of Informatics

² ICT=információtechnológiai forradalom=revolution in the information technology

MAIN ISSUES OF THE FUTURE [4]

The Internet is an economic and social infrastructure of crucial importance in global economic growth and social development. In this context every guiding principles is evolved with the aim of creating an environment which makes it possible to frame a homogeneous vision for the future which stride over national boundaries and political and personal communities protecting various interests. Such guiding principles are needed in the Internet economy in the next decade. Accordingly the OECD stands for that the national governments should consider the possibilities concerning business, technical collectivity, civil society and the social, economic and technological tendencies, which may form the development of the Internet Economy.

The Internet increases our ability to create, to work out figures, to communicate, moreover it is synchronized with other systems, and it carries out reforms and does away with obstacles, which limited a lot of economic and social activities in the past. Hereby new ways are made for increased productivity, reduced costs, and higher living standards, which were inconceivable a couple of years ago.

The Internet intensified creativity, which helps to produce new software-, and hardware products, sensor technologies by this means new ways can be made, global businesses can be done, new places of employment can be created. So, the question is that how can we encourage innovations, establishment of new co-operative models, which can foster the growth. It is necessary of course to make possible the maximal reach of the state sector information and contents. All these may upgrade the value of the electronic science in the innovation policy and in the OECD's innovation strategy.

As the Internet is becoming the main device and area of the economic and social activities, it immediately attracts frauds and malicious activities, which keep growing in size and refinement and threaten both the consumers and the users. Thus it is becoming a key question that by what means can be the safety of the critical information infrastructure insured and how can we fight against vicious softwares. Cooperation of many interested persons over national borders has begun for privacy, security and consumer protection. These can be interpreted in brief questions as follows:

- What did the governments accomplish in their structural reforms and what kind of priorities did they determine?
- What are the key factors that generate reform initiatives?
- What can be the role of the European establishments in the structural reforms?
- How can the national economy policy help the structural changes?

Defence of information is one of the most important questions, which can be corroborated with a recent example from the military scope. [5] The NATO is establishing a centre for defence of data stored or exchanged on computers and the Internet according to the agreement, which was signed by seven member states in Brussels. Experts and financial support for the new centre (Seat: Tallinn) will be provided by Estonia, Latvia, Lithuania, Italy, Spain, Germany and Slovakia. The United States has already showed intention to join for the cooperation and joining of other federal member states is expected too. The task of the centre will be to prevent penetration attempts and attacks against computers and networks and to act against the perpetrators.

The establishment of the centre shows that the NATO considers this kind of activity a more serious military and civil threat. Estonia was chosen because the computer systems of this Baltic state, its banks and the local media were unprecedentedly attacked in succession, last year. Estonia already suggested setting up this kind of agency many years ago. After the incidents of the last spring, the NATO sent information specialists to investigate the events.

The centre, with some 30 persons for the present will probably start the work in this summer, although its official initiation is planned by the next year.

The agreement was signed before the meeting of the chiefs of the general staff of the NATO member states in Brussels. On the two days' session the military tasks of Afghanistan and Kosovo were in the focus, but the cooperation with the Balkan states and the former member republics of the Soviet Union are on the agenda as well. The establishment of the computer centre was ratified by the prime ministers and the heads of the NATO member states at the beginning of April. It was already remarked at that time that joining to its work is voluntary.

Here are some of the main questions of the future, which are to be answered and can motivate us for further thinking.

1. Which are those unsettled questions which, after finding answers for them, can help the cooperation among the countries in the course of the realisation?
2. What were the main causes of the successful expansion of the Internet access recently and what kind of steps are necessary to continue this tendency in the developing countries?
3. Which political causes hinder development?
4. How can a correct ICT policy help the closing up of the developing countries' economy and society?
5. What can be the role of the cooperation over the boundaries in strengthening trust in the Internet Economy?
6. How can the consumers completely exploit the benefits of competing offers appearing on the online market?
7. How can the consumer protection be insured in the course of the commercial transactions on the Internet?
8. In what way can the profitable branches of industry be convinced of the advantages of the Internet Economy?
9. Are a structural change of the branches of industries and marketing strategy necessary after joining to the online trade?
10. How can the information of the state sector be utilized in introducing online trade?
11. What information can be made public by the governments on behalf of spreading the e-economy?
12. What kind of political decisions are necessary to help on creating a new generation of networks?
13. How can a homogenous law regulation be realized in national and international frameworks?
14. How can an international economic environment be built and co-ordinated, which provides competition, facilitates decision making processions, and is equally convenient for the consumer society?
15. What is the right balance between the public and the private investments?
16. Which area can get to a more advantageous position in providing services?
17. How can we enable the consumers to make advantage of changing in the communicational and information services?
18. What kind of factors should the Internet fit to in order to help to achieve economic and social aims?
19. What kind of conflicts can be arisen between the use of Internet and political activities of the governments, which may hamper its spread?

THE ANSWERS OF THE OECD CONGRESS [6]

The above mentioned OECD congress looked for the answers for these questions too. Without claim of completeness, let's look over some answers, which can give opportunity for further reflecting too.

The OECD member states are jointly taking every effort to provide an access to ICT networks and services reachable from everywhere, which can make the participation in the Internet Economy possible. The further expansion of the Internet Economy will support the free flow of information, the freedom of speech, the defence of individual freedom. Besides, it can serve as means to treat global challenges too (e.g.: consequences of climatic change etc.). The main goal is that the Internet Economy should cover the whole range of the economic, social and cultural activities, and improve the quality of life with the support of the Internet and the connected informational and communicational technologies.

The security is a significant problem to be solved, which can diminish the users' worries concerning informational systems and networks. The participants on the congress encouraged and supported the more effective use of radio frequency spectrum, which can facilitate access to the Internet and the new innovative services. They also suggest the governments to accept the new version of Internet Protocols, the IPv6, which has the following characteristics.

The IPv6 is an Internet Layer protocol for packet-switched internetworks, which was designed to improve the Ipv4 (briefly IP). The IPv6 features a larger address space than that of IPv4: addresses in IPv6 are 128 bits long versus 32 bits in IPv4. The reason for this that the free IPv4-es titles will run out expectedly in the immediate future and it is not possible to hand out new IP addresses, and later on, could not be already long in this manner to join the system. Onto the solution of this problem it started being developed it IPv6 (the 5 version serves a totally other aim, the next version was because of that the 6). The IPv6 has several benefits compared to IPv4 apart from a much bigger address range. The IPv6 favours it on the one built into the protocol the multicast. Safety solutions are at his disposal, since it IPv6 the part of a protocol IPSec.

It is evident, that the OECD has found feasible answers for some problems of the Internet Economy, of which I mentioned only some. At the same time it is clear, that in the area of Internet Economy new problems to be solved arise every day, therefore solutions need everyday consultations among the experts of the member states.

SUMMARY

Since our aim was only to draw attention to the use of the Internet, only some issues were mentioned related to it. We can explicitly state that in the future the Internet will play an important role in the development of economy and society as well. As a result of this the national and international participants of politics will pay distinguished attention to it. That's why the future role of the Internet is in the centre of interest of the OECD and NATO; and that is why providing the conditions that determine the further development of the Internet was discussed by the OECD on a ministerial conference in 2008.

One of the keys to the following success of the Internet is that – although the infrastructure of the Internet was built up, brought into action and developed by the business world, and the improvement of the services was initiated by the private sector- the national governments should also take actions on behalf of the further development. Accordingly it is important that the research activity of the new generation of the Internet should be supported by the governments and the EU too, since the system has more and more function and serves bigger and bigger part of the population of the world, development of new disciplines and technologies are necessary.

The next generation of the networks will have such a big velocity that provides large access for 'everybody' to informational services of science, health, environment and everyday life, thus raising social welfare too. Accordingly it is expected that research of the new generation Internet will remain one of the leading research topics in the military and civil life alike. As it is evident from the description of the new organization, the NATO and the Hungarian Defence Forces have also joined into this process, making possible immediate employment of the achieved results in many fields of the military life.

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