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THE CONCEPT OF AN INFORMATION SOCIETY IN THE EUROPEAN UNION

1. The essence of an information society

The concepts of the so-called information society and post-industrial society have developed in the economic writings of economically advanced countries since the 1970's. At the heart of these concepts lies the analysis of the influence which the increasing role of information and information technologies exert on the social and economic changes within the societies of the Triplet countries (Western Europe, USA and Canada, Japan). There develops a model of the 'society of the future' which is rich in information and in which this information is available (to a certain extent) on request and is suited to the needs of the citizens. According to American sociologist D. Bell, knowledge and information lay a foundation for a post-industrial society in that they provide the source of strategies and transformations in societies, in which case they are roughly equivalent to capital and work in an industrial society (Bell 1973).

It was the Japanese economist T. Umesao who first formulated the concept of an 'information society'. In his analysis conducted in 1960's Umesao emphasised the growing importance of information and modern technologies in the socio-economic development in Japan (Dordick, Wang 1995). On the turn of the 20th century the concept of an 'information society' achieved full status in various programmes which defined the strategy of a civilisation development in the best developed countries of the world. Amazingly fast progress in the field of information-communications technologies has given rise to technologies which in an almost revolutionary way modify the social system of communication as well as its structures and also exert a significant influence upon the economic and political processes. The rapid development of an information theory caused the information-communications net (as well as the system of accumulation,

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transformation, emission and distribution of information related to it) to become the main source of effectiveness and power (Doktorowicz (ed.) 2002, pp. 73–74).

M. Castells, the renown sociologist of Berkeley University and the author of the groundbreaking book “The Information Age”, claims on the basis of long standing research in over thirty countries of the world that a new kind of society comes into being – the so-called ‘network society’ (Castells 1996). In such a society a typical hierarchy is replaced by a horizontal network of dynamic connection which operate within global range. Large modern companies (corporations) do not occupy particular premises but are, to a larger and larger extent, rather a complex network of connections. The same is true about the financial capital which can be quickly transferred from one place to another all over the world.

L. Soete who is a European Union expert on social policy is of the opinion that information society is characterised by an unlimited public access of its citizens to the technologies of accumulation and transmission of information on the one hand, and by the low costs of these technologies on the other. The widespread use of information is, according to Soete, accompanied by organisational, legal, social and economic changes which profoundly transform everyday life, work and society (Doktorowicz (ed.) 2002, p. 75). A remarkable development in information-communications technologies forces us to seek a proper balance between the demands of an economic growth and social as well as ecological values, between economic globalisation and ethical values, between short-term benefits and long-term economic, social stabilisation. The accomplishment of these goals requires a change in the attitude to the traditional European standards of affluent countries, to public sector and to a widespread access to information and communication sources.

2. The groundwork for an information society within European Union

The harbinger of the future project for setting up the Union’s information society was the 1978 publication of the Strategy for Union’s Enlargement. Of equal importance was the fact that the largest European consortia (Philips, ICL, AEG, Siemens, Olivetti, Thomson) were invited by the European Commission to enter into a discussion about the political and economic conceptions which centred at the modernisation of the European industry and technology. The result of these discussions were many research & development programmes whose primary goal was the active participation of Western Europe in the mainstream of a micro-electric revolution. Among these programmes three are particularly worth mentioning: i.e. FAST, ESPRIT, RACE.

FAST (Forecasting and Assessment in Science and Technology) is the community's programme instituted in 1978 in order to develop a unified system of forecasting and technology as well as to evaluate the effects of research and new technologies. Three thematic fields: information technology, biotechnology, transformation of job and employment were the subjects of research within this programme (Leonard 1997, p. 173).

ESPRIT (European Strategic Programme for Information Technology) was established to enhance the competitiveness of western-European companies in the field of information technologies. This programme entailed the following domains: advanced micro-electronics, programming techniques, advanced data processing, computerisation of offices and the techniques of computer-controlled production.

RACE (Research and Development in Advanced Communications Technologies for Europe) is a programme designed to develop the technologies necessary for building a telecommunication network from optical fibres of wide range. Such a network could be used to transmit sound, image and computerised information.

First Framework Program of scientific research which was introduced in July 1983 had a decisive meaning for the research & development of the Union's policy since it initiated cyclic general programmes which contained the projects of all member countries. These programmes set the scientific as well as the technical aims, research priorities and planned enterprises which are indispensable in their realisation, together with the financial means and their division into particular research tasks.

The next stage in the process of encouraging a greater co-operation between the Union's countries in the field of B + R was extending the Treaty (which established the European Community via Uniform European Act from July 1987) by adding a new part entitled "Research and technological development" (Title VI- art. 130f-130q). These new rules defined both: the Union's aims in this field and the ways of putting them into practice. They also granted the European Commission and the European Union's Council authority in the sphere of actions which would strengthen the scientific and technological basis of the Community's industry and enhance its international competitiveness (Kawecka-Wyrzykowska, Synowiec 2001, p. 164).

European Union's reaction to the rapid development of modern information techniques during the last decade of the 20th century was the White Paper entitled "Growth, Competitiveness, Employment. The Challenge and Way Forward into 21st Century" which was published by the European Commission in 1993. The book presented for the first time the European vision of an information society with particular emphasis placed on the need to make the European economy more liberal.

More factual formulation of the Union's policy which was aimed at building an information society was presented in M. Bangemenn's report "Europe and the Global Information Society" in 1994 (Doktorowicz (ed.) 2002, pp. 78–79). This report needs to be treated as the Community's reaction to American programs for development of data information services which comprise the "National Information Infrastructure" strategy formulated by the president Clinton's administration. M. Bangemenn's report spelled out dangers to the European Union's countries which arose from cutting the investment to build information infrastructure. The most serious of these dangers are as follows:

- an increase in the balance-of-payments deficit with principal trading partners;
- the loss of income and competitiveness in comparison with the economies making use of the most modern information-communications technologies;
- the transfer of modern branches of industry, knowledge, patents and workplaces (i.e. the elements of future nations' welfare) from Western Europe to the USA and Asia;
- establishing domination over the world markets by setting standards in different countries and as a result depriving the European companies of leadership in the world.

The threat of losing competition on the global information market with the United States and the countries from the Pacific region forced the Community to speed up the process of establishing an information society. In 1995 the European Commission set up two important advisory bodies: "Information society" forum and a panel of experts whose aim was to analyse the social, economic and cultural aspects of an information society. The actions of these teams are focused on issues such as: the influence of information-communications technologies on economy and employment, virtual societies, a change in public sphere, education, media and steady development. The outcomes of these teams' actions include: the completion of the 1997 Green Paper dealing with telecommunication, media and information technologies' convergence and the formulation of the 1999 Green Paper devoted to making the European sector more information-oriented.

In December 1999 an important event in the creation of an information society was the fact that R. Prodi announced the "e-Europe – an Information Society for all" initiative. This initiative has become one of the key elements of the European Commission broader strategy, aimed at modernisation and strengthening of the European economy. The originators of the "e-Europe" initiative have accepted the assumption that accelerating the actions for building an information society will positively influence the employment levels, effectiveness and competitiveness of the European companies. The main aims of the analysed initiative are the following (Marciński 2000, p. 47):

a) making the latest achievements in the field of information theory and telecommunication more widespread among European societies (in all spheres of their activity);

b) making Europe more predisposed to put the achievements of the tele- and info-revolution to use as well as to finance and develop the scientific research and innovations;

c) aiming at modernisation processes in economy that include social criteria, which constitutes an indispensable element in the creation of the social capital (trust, social balance) in the countries of the European Union.

The fulfilment of such ambitious and long-term aims is connected with particular spheres of activity on which efforts of all member countries should be concentrated. The European Commission has pointed to ten such spheres which are defined in the following way (Marciński 2000, pp. 47–48):

- providing young people with an access to the Internet and multimedia; adapting these sources to suit educational needs in accord with the standards set by the contemporary civilisation challenges;
- accelerating the development of an electronic economy, which is parallel to the progress in implementing indispensable legal regulations, electronic procedures in public orders and special support for small and medium-sized companies;
- starting the fast Internet that would suit the needs of researchers and students, which in turn demands creating fast Internet links as well as rendering them accessible;
- creating European infrastructure for a broader usage of electronic cards in multiple applications;
- increasing the supply of risk capital for small and medium-sized companies in the field of high technologies;
- acknowledging the needs of the disabled in the process of the development of an information society;
- the development of an “on-line” healthcare, which demands making both the net services and the electronic technologies more widespread in healthcare, promoting the most valuable experience of operating the medical net, running hospitals, laboratories and pharmacies as well as the standardisation in the field of medical information theory;
- creating intelligent transport through a better utilisation of modern technology in this domain, providing optimal production planning and easy communication during journey time;
- working out a system of “on-line” government which will enable the citizens to gain access to public sector information.

During the Helsinki summit held in December 1999 the “e-Europe” initiative received approval from all members and was sent to the European Commission and to a team of experts in order to arrive at detailed solutions. The

outcome of the discussions which lasted for many months were numerous remarks and suggestions concerning the specification of key actions, identification of priorities, ways of achieving goals and the sources of financing the "e-Europe" initiative.

3. Lisbon – the next step forward

The "e-Europe" initiative has transformed into a mature concept, which can be seen most clearly from the two documents: i.e. "e-Europe – an Information Society for All Progress Report" and "The Lisbon European Council – an Agenda of Economic and Social Renewal for Europe." These documents were presented by the European Commission as a basis for the discussion during a special EU Council's session in Lisbon in March 2000 (Leonard 1997, p. 195).

The former of the two documents, i.e. the report about putting the "e-Europe" initiative into practice, contained the conclusion of the discussions which were taking place in different European bodies and concerned the development of an information society in the European Union. The capital meaning of the Internet for the development of modern and competitive economy was given particular emphasis. According to the authors of the report, the creation of a new model of electronic economy – "e-economy" – is indispensable if the competitiveness of Europe's economy on the world markets is to be enhanced. It is the very introduction of such a model that will result in a dynamic development of capital market. The numbers of staff making effective use of tele-information techniques will rise and the innovative effectiveness of the companies will improve.

In comparison with the original document presenting the "e-Europe" initiative Progress Report contains a new chapter devoted to the problems of "e-economy". In this chapter a comparative analysis of the competitiveness of Europe and the USA's economies has been carried out. This analysis indicates that the main reason for the declining competitiveness of the EU is the delay in employing tele-information techniques, in particular the Internet. The major boost in work efficiency of the American economy in 1990's is attributed to launching the "world wide web" with parallel use of the Internet as a market medium. In the USA 50 out of 100 companies which have the biggest capital are companies specialising in the branch of information technology and telecommunication whereas this percentage is much lower for the EU (it does not exceed 35% – the majority of which are telecommunication operators). This points to the fact that American companies enjoy superiority in the sector of information technologies (Marciniński 2000, p. 48).

The USA is also superior to the EU countries also in the field of popularising the tele-information technologies across the society and in the economy. The percentage of citizens using the Internet in the USA is 2–3 times higher than in the EU society (with the exception of Sweden, Finland and Denmark). The USA has also reached a dominant position in the electronic business-to-business trade, which results in a decrease in the prices of goods, in a reduction of the warehouse stock of goods and of the transaction costs as well as in the broadening of the company's market scope. American companies are unquestionable leaders in working out their own Internet strategies, which considerably increases their market value.

From the above-mentioned crude comparisons it follows that the EU countries are divided by a considerable technological distance from the USA as far as the employment of the achievements of tele-information revolution is concerned. The need to live up to the demands of modern competition (in which the American economy is the leader) has contributed to assigning the "e-Europe" initiative a primary role in the European strategy for building an economy based on knowledge. It is expected that implementing the idea of an information society should result in an economic boom in Europe, in the expansion of the market as well as in an increase in the productive potential and social welfare.

The second document referred to as the so-called Lisbon Agenda (compatible with the requirements of the "e-Europe" initiative) was considered to be one of the six action directions whose strategic aim is the transformation of the countries of the "fifteen" into the most dynamic and competitive economic alliance in the world by 2010. Short-term goals of carrying out the project focused on the creation of an information society were also stated. These goals were summarised as follows: a) the formulation of a definite plan for undertaking the "e-Europe" initiative, b) providing easier access to the Internet through the reduction of costs (by the end of 2000), c) finalising legislative measures in the field of electronic trade (by the end of 2000) and d) accepting a new package of regulatory directives on telecommunication (by the end of 2001).

The participants of a special summit held by the European Union Council in Lisbon formulated many postulates concerning the implementation of an information society model. In the final document the European Union Council agreed on the following settlements (Marciński 2000, p. 49).

First, the EU Council recommended that the European Commission should formulate a detailed plan aimed at instituting the "e-Europe" initiative and present it at the EU Council session in June 2000 in Feira;

Second, the Council found it necessary for both the entrepreneurs and the citizens in the EU countries to gain access to a modern tele-information infrastructure. In addition, it is important for every citizen to have computer qualifications;

Third, the Council pointed out that information technologies should be of great benefit to local and regional development, to the protection of natural environment and to the appreciation of cultural differences;

Fourth, the Council put the European Commission under an obligation to adopt as fast as possible (in 2000) full legislation indispensable for the development of electronic trade, property rights and electronic financial services. EC was also obliged to finish (by 2001) works on the new legal regulations in the telecommunication branch as well as to fully liberalise the telecommunication market;

Fifth, the council recommended that the European Commission and member countries should step up effort to become more competitive on local telecommunication markets still before the end of 2000, which would result in the reduction of telephone connections and at the same time in the bigger Internet accessibility to citizens.

At the Europe Council's session in Feira (Portugal) in June 2000 EU leaders endorsed the plan for the institution of the "e-Europe" initiative which is an important part of the strategy worked out in Lisbon. Many decisions made by the Union's institutions as well as by the EU member countries contain postulates which result from recommendations concerning the implementation of this plan. These recommendations have been reflected in the Sixth General Research Programme which centres upon the realisation of the "European Research Space" and upon plans to utilise Structural Funds.

4. Assessment of the implementation of the "e-Europe" initiative

The assessment of the implementation of the Union's project to create an information society should include objective macroeconomic conditions which have altered the successful course of this process. In March 2000 when the EU authorities accepted the Lisbon strategy, the European economy was in good condition, investors were optimistic, large profits (resulting from making the latest information and telecommunication technologies more widespread) were expected and on the stock exchange the stock prices of partnerships which represented the so-called 'new economy' reached record levels.

However, one year later the rate of the economic growth in the EU countries slowed down; this rate indicator was in 2000 barely 0.9%, the unemployment rate was on the increase and the German economy which was the major power fostering the development of the Union's economy was on the brink of recession. Such deterioration in the favourable economic situation over the last two years as well as the political divides within the EU connected with the war

in Iraq resulted in the delay in the implementation of the Lisbon strategy. Despite numerous obstacles to the process of implementing the creation of an information society, European Union has considerable achievements in this matter.

First, there has been a substantial improvement in the access to the Internet among European households; the percentage of an access to the Internet increased from 18% of households in 2000 to 43% at the beginning of 2003; and 90% of schools are connected to the Net (Leonard 1997, p. 195). Wide-band access is enjoying greater and greater popularity.

Second, a new net and a new .eu address have been created. This move has enabled to create the common European name for homepage addresses and mail boxes. The EU domain is a supplement to the existing network of national domains and also to the general type-domains such as .com or .org. Companies which are active across Europe can make use of this domain. Beforehand the WebPages of the EU institutions had the domain .int which came from Los Angeles and is reserved for international bodies such as ONZ or NATO.

Third, the conception of the community patent has been worked out, which is of significance for the liberalisation of the technical thought market. In accordance with this conception an inventor gains right to legal protection in all EU member-countries and the theft accusation put forward by the European Patent Office is valid in any EU country.

In the past years many deficiencies in the process of the realisation of the Lisbon strategy concerning the "e-Europe" project has been brought to light. These deficiencies can be summarised as follows:

- an inadequate degree to which the Internet is used in trade; barely 1% of trade transactions in the EU countries are carried out via. the Net.
- insufficient investment of the European companies in information technologies; for this reason the EU loses on average 0,3 – 0,5 percentage point of the annual GDP growth in relation to the USA (Leonard 1997, p. 192);
- lack of progress in bridging the technological gap between the European Union and the USA; in Lisbon it was agreed that the expenditure of the EU countries for the research and development activity would increase from current 1,9% GDP to 3% in 2010, which would enable to catch up with the USA.

The accession of ten new countries presents a serious challenge to the European Union since these countries are characterised by a lower degree of economic innovation in comparison with the "fifteen" as well as by an insufficient degree of putting the modern information technologies to use. That is why after EU enlargement the technological gap between European countries and the USA which will have to be bridged will be greater than it is nowadays.

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KONCEPCJA SPOŁECZEŃSTWA INFORMACYJNEGO W UNII EUROPEJSKIEJ

Przedmiotem artykułu jest analiza głównych założeń koncepcji społeczeństwa informacyjnego w Unii Europejskiej, a także ocena przebiegu jej realizacji. Uzupełnieniem tej analizy jest charakterystyka Strategii Lizbońskiej, w ramach której zaplanowano działania przyspieszające realizację budowy europejskiego społeczeństwa informacyjnego („e-Europe”).