

HOMO TECHNICUS – A MAN IN THE INFORMATION SOCIETY

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Abstract: The rapid development of new technology implies changes in human lives. More and more aspects of human life are moving into the internet space. The internet is a new place to be a person which can implicate a new identity and personality. Therefore, the aim of this article is show theoretical considerations on the impact of the information society on human life. The first part of the article includes typologies of people in the information society distinguished by Manuel Castells and Jerzy Mikułowski Pomorski – differences and similarities of both typologies are shown. Next, characteristics of the information society are presented and the impact of the new reality on human identity. It should be noted that new types of human identity influence many factors which are important to construct a new type of communication, network culture (new language, habits, new values etc). Based on this I have tried to describe the complicated situation of man – *homo technicus*. Moreover, elements important to function in the information society like: attitudes, abilities and level of involvement in the information society are distinguished. Thereby, were presented factors of participation *homo technicus* in a modern society.

Keywords: *information society, internet, homo technicus, technologies, ICT.*

INTRODUCTION

Modern society is referred to as The Information Society. The reasons for its creation are seen in the technological progress and information, and its characteristics are the high rate of change, which applies to almost all areas of social life.

Therefore, modern human-information relations are more individual as well as social,

international and global. It is a result of the ongoing technification and informatisation of the world. Therefore, we can assume that it is mainly an effect of increasing globalisation. It has to be underlined that an information society and its leading technologies, apart from undisputed benefits and chances for development, imply difficult challenges as well, which an individual must meet in order to

fully take part in social life. The Internet changes not only whole societies and groups, but mainly separate individuals. Internetisation, technification and globalisation entails considerable changes in quality, as well as quantity in human life. But technification (informatisation) is not beneficial to an equal extent among all people. As Lech Wojciech Zacher describes it: "in the modern world there are actors and extras, active and passive entities, also strong and weak, big and small" (Zacher, 2007, p. 20).

PEOPLE AS ACTORS IN THE INFORMATION SOCIETY

Actors in the information society are not a homogenous population. In source literature one can encounter many different typologies of social groups participating in this new society. Jerzy Mikułowski Pomorski defines participants of the information society according to their expectations towards the net (internet). The typology goes as follows (Mikułowski Pomorski, 2003, p. 60):

- people, who treat the net as a tool of communication, thus will be using it for dialogue,
- social groups, for whom the net is the means of communication with the services of other subjects, so for them it is a tool enabling access to offered resources,
- individuals, for whom the net is area of their diverse activities, within which they pursue their own goals.

On the other hand Manuel Castells offers a typology of the information society according to the way that the net is used. Based on that typology, he distinguishes the following levels of users (2001, pp. 36-63):

- Techno-elites- people that use internet to fulfil their professional tasks. These people believe that scientific and technological progresses are key elements in humanities' development. Such an exemplary group are scientists, who by the means of the internet, pursue their scientific careers. The Internet enables them access to intellectual work of others as well as popularization of fruits of their own work;
- Hackers'- in this group we can find computer experts, programmers, who possess specialised skills for creating the net. Their strategic goal is to make contents of the net accessible at least for themselves
- Virtual communarians- people, for whom the internet is a place for social interactions. The Internet is a tool for creating social structures (virtual societies) based on dialogue;
- Entrepreneurs- for them the internet is a place for running business activities. These people are creative within their businesses but not towards the internet.

Each of presented groups has its own goals, which are to be achieved by use of the internet. The two typologies presented above are based on the assumption, that all SI citizens are- to some degree- internet participants. In this context it would be beneficial to name classes of information society distinguished by Umberto Eco. According to him, in the new social reality the lower classes will consist of people, who don't take part in the net, due to the lack of skills in using new technologies. For them, the only sources of information would be the television. Further, the middle class will be built up of people, who use computers and the net, but are unable to program them. On the other hand, those with fully acquired skills of using and

¹ M. Castells uses this term not in a colloquial meaning, as a cyber felon. This type of person is described as cracker. In this sense hackers are not people breaking the law in cyberspace by hacking servers but simply have more extensive skills and know-how in using the internet.

employing new technologies (e.g. programmers), will constitute the upper class (Eco, 1996, p. 11).

Inability to make use of new technologies leads to the situation called the digital divide. Taking into account the key role of the technical reactant of the information society, the digital divide will result in social exclusion, because many parts of social functioning are enabled only for the users of new technologies. For this reason the information society should not be perceived only from global perspective, systemic, but also as essential to assume the perspective of an ordinary man living in that reality (Eco, 1996, pp. 33-36).

THE INFORMATION SOCIETY AS A NEW AREA OF THE HUMAN LIVING

Lech W. Zacher points out the distinctness and specificity of effects caused by informatisation, internetisation and globalisation. Those results are seen as over-individual. Changes in the quality in life of individuals can be noticed for instance in the absence of traditional bonds (family, tribal, national, geographical, spatial and neighbourly). Another aspect is that in the information society there is no common superordinate goal, as in the past it was a national goal. Furthermore in the new reality national language is not essential any more, as well as culture and national heritage. The idea of transnationality is promoted, when it comes to the type of bond, as well as culture or identity. In this context terms such as patriotism, common economic benefit, boarder protection, which are important for territorial communities (countries) are no longer valid. Internetisation and informatisation create and boost new chances for both individuals and whole societies. Nevertheless, radical changes on a massive and global scale are transforming all aspects of human functioning, thus a new quality emerges, and not only a collection of new problems (Eco, 1996, p. 34). For this reason it is valid to analyse the process of transformation of people and their lives in the situation of informatisation and internetisation.

Analysing the situation of the internet man one has to point out all the conditions that modify and change his life. Beata Stachowiak divides changes in the life of man in the information society into changes in personal and social sphere.

Changes in personal sphere are those, which directly affect the man, among other things they affect changes within the family. They manifest themselves in changes in the family model and relations between family members. Moreover, it was indicated, that new changes occurred, such as addiction (from internet, gambling, shopping, cyber sex, mobiles etc), internet aggression, religious life (internet sites for parishes, internet forums and sites for believers etc) and cybernetic death related operations (virtual cemeteries, wills etc.). Whereas the changes in social sphere include: social media, blogs, problems of authorship, job market and e-services (Stachowiak, 2012, pp. 34-38).

There is no doubt that these changes occur in the information society. Nevertheless, it is hard to determine why B. Stachowiak (2012) focused on those changes a not the others. It is obvious, that they do not use the whole range of possibilities of changes in human functioning. They rather signal tendencies of changes, which apply to all aspects of human functioning, not only those mentioned above. For this reason we get the impression that those changes were picked rather randomly, not using any kind of key of reasoning. The mentioned changes are of rather secondary relation to changes in human life, not causative.

Taking that into consideration it is wise to consider more profound reasons and effects of changes in lives of individuals. As mentioned before, changes in the way an individual functions, as well as its identity have their source in phenomena such as globalisation, internetisation and technification (informatisation).

Availability of the net effected in communication and exchange of information being generally available and instant, but a new space for being a man appeared. Virtual space

is very specific, "it appears and disappears in so called »in between«; between what the human mind is capable of imagining and what is the technical consequence of this process. You can consider this reality as determiner of a cultural development dynamic, efficient and filled with applied science (...).The human being can find himself both as a sender and a receiver at the same time, as a subject-creator and as an object- being created. In other words, synchronic in this phenomenon having a lack of corporeality and materialistic source, enable VR² and the participating subject a new dimension of functioning" (Miczka-Pajestka, 2005, p. 35).

Virtual reality gives you a chance to escape from reality and its problems. For this reason net escapism can become a significant phenomenon, to which we cannot stay indifferent. Even though people function not only in cyberspace, evidently location proportions are changing, which raises the significance of this phenomenon. The net becomes a new place where a man entrenches himself (Zacher, 2007, p. 35).

Another result of technification of life is pointed out by B. Stachowiak the change in human relations. The Internet enables communication despite huge distances, almost free of cost. Nevertheless, due to the constant use of net communication people are losing the ability to interact directly with one another. Most communication is done indirectly, which often leads to a shallowness of those relations. Superficiality and momentariness of relations leads to situations in which a man, despite having a vast number of friends, is lonelier. Nevertheless, as M. Castells claims, statements concerning the destructive influence of the internet on human relations are based on research conducted on the "first" internet users, so it isn't a base for making generalisations in this matter. Furthermore, the author quotes

different research, which shows, that there are no differences in social interactions outside the net between internet users and non-users. And what is more, he indicates, that the internet has a positive impact on building human relations. The possibility to communicate via the internet has a positive influence on maintaining close relations with family members and friends, who are far away. On the other hand the author also cites research showing that a man living in virtual societies has considerably more contacts, however only a few of them are strong and intimate relationships (Castells, 2001, p. 117). It appears, that- firstly, the internet helps supporting relations with people, who we know in real life, and secondly that it enables many interactions with people, who we meet in the net, but in this case those relations are noncommittal and temporary.

J. Mikułowski Pomorski just like M. Castells, is of the opinion, that the internet aids fragmentation of interpersonal contacts. We are not dealing with a mass audience, because even though people are consuming more and more information via internet, they do it individually. And that limits the possibility of exchanging information with others and commenting on news in traditional groups and circles. For this reason people look for conversational partners for topics of their interest outside those traditional circles. As a result new, narrower relations arise, relations with people, who we will never meet outside the net and with whom we do not share space (Mikułowski Pomorski, 2003, pp. 36-40; Castells, 2001). At the base of this situation lies the individualisation of modern man, to whom the net gives a chance to develop individuality and personal interest. More than often individualised interest, due their specific nature, can be carried out only within the net, because only there it is possible to meet others interested in particular subject.

² VR is abbreviation for Virtual Reality.

Additionally the internet in itself cannot be a substitute for full human communication. "Surely it maximises some of its elements, creating the feeling of deficiency of others. In communication it causes asymmetry, where it is easier to get to the information than it is to understand it. This is why it should be doubted, that people will stop seeing each other and will limit themselves to internet contacts. It will rather be the internet that will contribute to making face-to-face contacts more conscious and better prepared" (Castells, 2001, p. 39).

The Internet is a unique and specific space, different from what was known in the past. Being present in internet space results in acquisition of new skills, habits, behavioural patterns and standards. In this context culture seen in global and net perspective, is not without meaning. "Technology becomes part of culture, and culture becomes inevitable space for technology to exist, while the man is simultaneously regarded both as creator, processor and participant of technified culture" (Miczka-Pajestka, 2005, p. 54). Alone the fact of highlighting net culture in source literature indicates the huge significance of the internet. If the net has its own culture, it means, that in terms of quality it is a new space, in which a person stays and acts (Miczka-Pajestka, 2005, pp. 32-38).

Analysing the relations between a person and the information society, one should also point to the psychological aspect of cyberspace. It is not only a space, in which information can be accessed, but also and more often it is a space that "hooks", because more and more human needs are satisfied via the internet. You could say, that the net has become one of the key areas of functioning of the individual, in which he satisfies not only his need of knowledge, information and communication, but also the need to be accepted, acknowledged, and needed. As mentioned before, one of the qualities of the new reality is transnationality, lack of traditional national bonds. This is the reason, why the net becomes a new place of human entrenchment.

All of the aforementioned changes, that is

a new type of relations, different ways of existence, new standards and behavioural patterns, psychological sphere, net culture, as well as the fact, that this space became a new place for individual entrenchment, are not without meaning for personality and identity of an individual.

Human transformation is of a deep and multi-dimensional nature, because it involves possibilities, aspirations, interests and behaviour (Miczka-Pajestka, 2005, p. 43). A new identity, sometimes called a multi-identity, is indicated, where a person has several identities at the same time, which not necessarily have to be coherent with each other. A net individual, depending on situation and need, creates this new identity for the purpose of a particular situation. Identity, just as in the case of information society, can be described as turbulent, diverse and kaleidoscopic. What is important, it is not a rule, because as we follow Nancy Baym's research, many people create their net identity consistent with their identity in the real world (Castells, 2001, pp. 118-119). Nevertheless, it is hard for the contemporary analysts to explicitly determine, to what degree the internet creates identity of a modern man. We can recognise, that currently in the context of post-industrial society a new type of individual emerges, a net person, for whom the internet is an area for creating his identity (Mazurek, 2006, pp. 191-197).

Figure 1 shows the influence of the internet on creation of a net person. Internet development is a boosting factor in emerging of new phenomena or the quality of human functioning. The diagram takes the shape of a net, which links it to one of the features of information society outlined by M. Castells (2001) - net logic. This logic perfectly fits into the foregoing considerations, because it is difficult to point out, which occurrences are primary and which are secondary. They appear somewhat simultaneously and are tied together. They have the characteristics of a kaleidoscope or a net. Still we can distinguish four basic areas, which change through technological

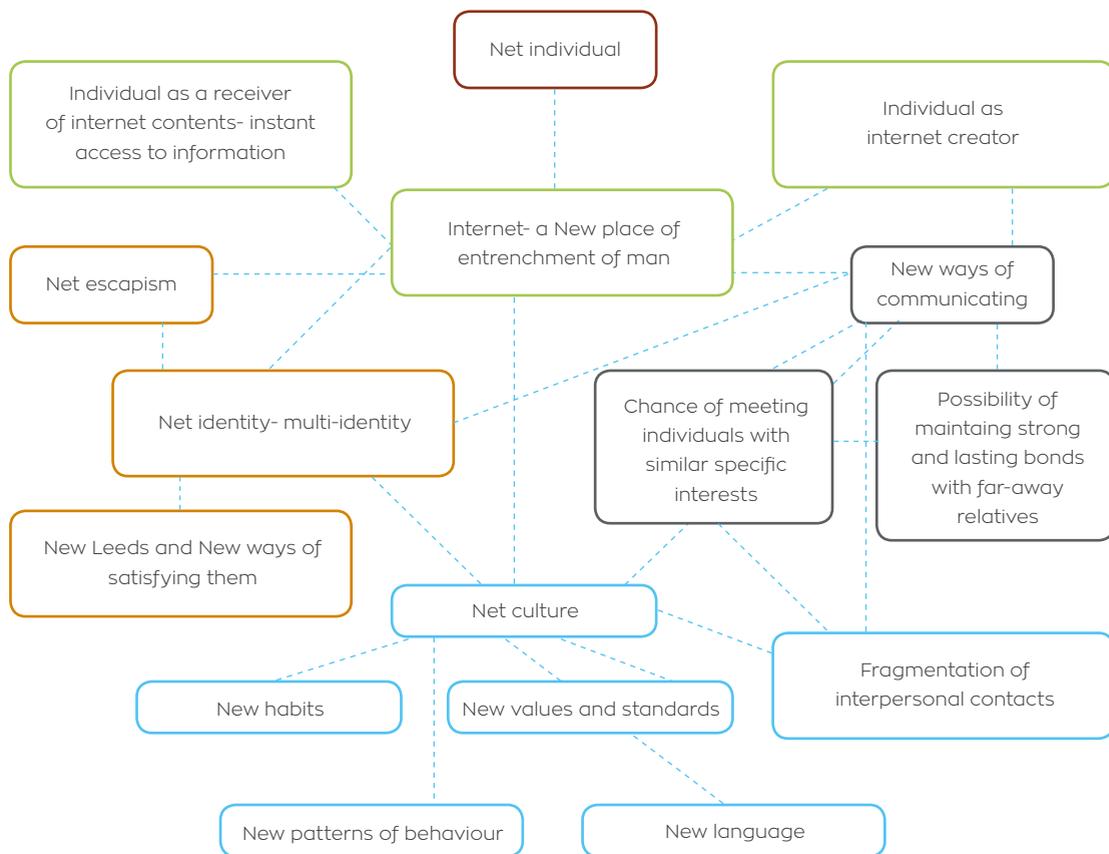


Fig. 1. Diagram: Individual in information society. Source: Own elaboration based on source literature.

advancements. The first one is virtual space- as a new place of human functioning. Other areas that went through changes are: communication, culture and human identity. You have to recognise, that foregoing diagram does not deal with all aspects of this subject and only indicates sample elements, whose change contributed to creation of "homo technicus".

The fact that nowadays new technologies and the internet play dominant roles results in more and more aspects of human functioning are moved into the cyberspace. It becomes not only an inseparable element of life, but also a place, to which an individual belongs and with which

it identifies itself. The net also generates a new way of communication, which has its influence on human relations. Often the internet joins people, enabling unrestrained communication, however this relation is quite often lacking in quality. And that is the cause of human loneliness in the net. New space also generates new specific standards, ways of behaving, language, manner, which is characteristic only for the internet. In this way a new net culture is being created. All those changes, whose source we can find in the aforementioned processes characteristic of information society result in changes, pointed out by B. Stachowiak (2012, pp. 95-90).

CONCLUSIONS

In summary, emerging of social media, blogs, new addictions, internet violence, new dimension of death (e.g. virtual cemeteries), and job market are a particular response to social transformation as well as transformation of an individual. Thus we can accept, that all characteristics describing the information society, such as diversity, comprehensiveness, being turbulent, chaotic and kaleidoscopic are reflected in changes of human identity and personality.

Changes to the sphere of functioning of an individual emerge as a response to social changes, so they should also be considered at an angle showing adaptation to changing conditions of life. We distinguish three basic elements, which have a fundamental meaning for human functioning in the new reality, which are:

- attitude of an individual, i.e. permanent set of beliefs, emotions and behaviour towards information society (Stachowiak, 2012, p. 87);
- skills, which should be understood as proficiency in handling information while executing tasks (Stachowiak, 2012, p. 88);
- the degree of individual engagement into information society, which is formed by service component, future component and infrastructural component.

Infrastructural component is mainly owned equipment, access to technical infrastructure (computers, internet, mobiles etc.) and the level of its use. Service component, on the other hand, is a degree of using certain services via internet. We distinguish information services, communication services and transactional services. Lastly, future component, deals with the individual's opinion on the subject of their future attitude. Tele-working and e-learning were taken into consideration (Stachowiak, 2012, pp. 89-97). To summarise this aspect, element dealing with engagement into information society refers to accessibility and level of use of technical infrastructure, using the services

provided via internet and foreseen attitudes towards new technologies in the future. The final component is quite disputable, while it is hard to predict individual attitudes in the future, especially, when those attitudes are not limited only to teleworking and e-learning. Showing your readiness to participate in working and learning via the internet seems more adequate than predicting your own attitude for the future.

In the academic world everywhere more and more attention is being paid to the need of forming- -in a broadly perceived educational process- personality characteristics such as creativity, responsibility, ability to think independently and cooperate in a group. Furthermore, as Stanisław Juszczak points out: "human development determines social development, more or less complex. Surfaces and domains of social life constantly penetrate one another. There are also shared elements functioning in social reality. One of those elements, very important from the point of view of social existence, is information (...). In an information society its role is exceptional enough, that fundamentally determines all organisational forms of human lives. It determines behaviour, lays out intellectual horizons and human interactions, imposes view of the world and understanding of reality" (Juszczak, 2000, pp. 39-40).

It seems that a person taking active part in society, is a person with a positive attitude towards new reality, has access to technological infrastructure and can use it properly, which manifests itself in use of e-services, participating in e-learning and performing telework. On the other hand, people lacking positive attitude towards the information society, cannot make use of new technologies and are excluded from participating in the information society. The problem of cybernetic exclusion is one the most important challenges.

Availability of new technologies is not equivalent to the use of new technologies. Analysis of the occurrence of new inventions

and tracking their social impact shows, that their “widespread social absorption is not a simple result of its availability by the means of ready-to-use technologies, but is achieved by a peculiar coincidence, when such a technology meets proper social demand and factors, that enable its reasonably quick reception” (Mikułowski Pomorski, 2003, p. 39).

One of the modern world characteristics is a division of people to those who use the internet, so are in the net, and those outside the net. Furthermore such division can become permanent, because the society differentiates itself constantly. There are people, for whom the internet is an essential medium for functioning and people, who approach the internet as an example of a novelty they do not need. J. Mikulski Pomorski notices that “life is subject to pluralisation and globalisation of internet society which lies mainly in the internet’s widespread accessibility. However, it does not mean that all will choose this form or that, even though they will participate in society, they won’t immerse in it entirely either. Today it seems more probable, that individuals will participate in several social arrangements, amongst which net society will be one of the most important, but not the only one” (Mikułowski Pomorski, 2003, p. 41). The phenomenon of the digital divide is defined as unequal access to the internet, though the access alone doesn’t solve the problem, but is a premise to overcoming social inequalities (Castells, 2001, p. 248).

The range of digital divide is determined mainly by factors such as age, education, social class and residence. The degree of digital divide should not be measured only by the number of internet connections. At the foundation of this phenomenon lies not only the technology, but also organisation of the form of distributing information, promoting knowledge as well as being able to participate in all spheres of internet activity (Castells, 2001, pp. 248-256). Groups particularly endangered by e-exclusion include people poorly educated and

elderly. Stanisław Juszczyk gives the observation that “(...) situation of the elderly is not to be envied. Long before getting to the so called postproduction age modern man is forced to participate in the world, in which technological devices, social institutions, required job qualifications, customs, systems of values, as well as symbols and colloquial language are completely different from the ones in his youth. Revolutionary changes in programming occur almost annually. Difficulty in adjusting to the changes makes the environment increasingly unfamiliar, inexplicable, irritating and sometimes even hostile to older people. Growing older, practically from middle age, the feeling of alienation is getting stronger. In the eyes of the younger generations old age stops being seen as a symbol of competence, experience, storehouse of knowledge and wisdom. Older people, that includes even 50 year olds, are treated with indulgence, kindly tolerated, rather than being listened to. Sometimes to differentiate between old age and youth technological criteria are used. An old person is the individual that loses the ability to adjust to ever-changing conditions. More and more commonly a person not willing to open a bank account, not owning a mobile phone, not using a computer or not knowing the internet, is perceived as old. For the first time this state was deeply felt at the break of the millennium. This conflict will grow bigger, until civilisation will continue developing in such a rapid rate, and science won’t supply proper means of interfering with human memory, as to make it selectively erasable, similarly to computers” (Juszczyk, 2000, pp. 58-59).

This author, not only points out to the difficult situation of elderly in the information society, but also recognises, that abilities of making use of new technologies (ICT) are becoming a primary criteria of youth and participating in society. Marginalisation of older people in the information society is a significant issue, because at the same time as changes creating information society occur we notice an ongoing process of ageing of societies already developed. In this

context a growing number of older people in the population in general is becoming a big problem and its solution is one of the priorities of European countries.

Changes in the spheres of functioning and transformation of an individual are undoubtedly influenced by technification, informatisation and internetisation of society, and so are processes

of a systemic and global nature. Analysing changes in the area of human performance, factor determining social participation as well as characteristic features of post-industrial society and its functions, it is possible to determine the dangers and chances for progress supplied by new reality- information society.

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