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Ontoelectronics. An Introduction

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The penetration of electronics into human everyday reality – starting from communication techniques, up to the influence in the very existential sphere – invites philosophic reflection concerning the mutual interaction between the electronic environment and human being. Surrounding us and influencing our behaviour in many more dimensions besides the direct utility, the electronic environment involves the problems of reality, existence, morality and art.

> "Virtual reality is closely related to teletechnology. It retains the harness, but replaces the remote robot with a computer simulation of a body (an 'avatar') and its environment. When we are 'in' virtual reality, the environment we seem to inhabit does not exist in the usual physical sense, we are actually in a computer-generated world."[1]

The intensity of electronics impact, through the orientation of subject towards the electronic sphere, may lead to polarisation of both reality and electronic environment, resulting in a dissonance between these areas, accompanied by the blurring of categories separating them. Through adaptation of electronic environment to various needs, human activity limits its impact upon reality, while intensifying the mechanisms inherent to electronic environment. While remaining partially independent, constantly expanded and enriched, the electronic environment increasingly enmeshing the human subject, provides the impression of emerging new alternative reality, which competes with the human reality which has been directly assumed.

On the basis of the simile of the Paradise projected upon electronic environment, Wolfgang Welsch focussed on the philosophic vision of man searching for answers to primordial queries: asking the question about human existence at the background of philosophical problems emerging in electronic age. Making frequent choices, through transverse balance, the human being is liberated in the process of self-determination within diversity. Through embedding in multiple contexts, openness and liberty are reaffirmed. However, the individual may face a choice to be made in ontological dimension, concerning the sphere of existence, i.e. a choice made between reality and virtuality. In the course of technological progress, this choice becomes increasingly important and consequential, since it is applied to comparable domains: reality and

electronic environment. According to Welsch, contemporary philosophy emerges in the involvement in electronic worlds,[2] human co-existence with technology, the transformation of human life in the aspect of electronics. When selecting the electronic environment, humans reach for the world co-determined by technology – the Paradise Lost, regained in the Electronic Paradise. Although the image of Paradise stands at the beginning and the end of human journey in this world, it is also the symbol of reward, happiness and existence liberated from the burden of flesh, and free of any possible metaphysical doubts concerning the temporal world, i.e. the status of reality. The electronic paradise may overshadow the capacity to differentiate between the phenomenon and the transcendent. The ontology of electronic environment reveals the invalidation process of the very idea of referring phenomenality to the transcendent, while phenomena may acquire the quality of reality description.

> „But what does 'true existence' mean here? Can the distinction between appearance and essence be retained at all in the electronic realm? For the everyday world this difference is entirely meaningful. The classic ontology – the doctrine of being and the appearances – was an unflinching treatment of this relationship. In the electronic world, on the other hand, the distinction between appearance and essence is invalidated. Monitor existence and memory existence are completely congruent. The appearance is a perfect representation of the 'essence'. It lacks nothing. The 'essence' contains nothing more and nothing less than the appearance. The whole factual content is identical, the form of presentation alone is different – sometimes analogue, sometimes digital."[3]

In effect of increased offered possibilities, technology leads to the exportation of human activity from reality and its transposition to electronic environment. In consequence of enlarged and enriched structures, the electronic environment obtains new properties and values, both in the functional meaning, and in the new sphere of experience which it creates. The user applies various interfaces leading to the electronic environment, i.e. to the sphere obtaining the anthropic dimension. The immersion in this new sphere may contain values and qualities of real life. Human orientation towards the real world vanishes with the speed proportional to the emergence of new possibilities within the electronic environment. The query about the nature of "reality" in the electronic era is exciting, due to the growing human meaning of electronically generated reality.

The intensifying process of human accommodation to electronics – in various aspects: e.g. information, communication, utility, bioelectronics, ethics, social and personal involvement, experiencing of time – expands the sphere and raises the quality of electronic environment, confirming its status as the one emerging in a mode that is quasi-parallel to assumed reality, and adopting its functions. Due to electronics, not only is it possible to alter the reality of the assumed real world, e.g. through intertwining of both domains, but also partial replacement of the real world by its electronic counterpart.[4] Rather than processing, humans create the reality, as an area to be filled with their activity. Quitting the electronic reality has been less and less necessary for human activities in their functional dimension. Interchange within the electronic reality has become a need or indispensable requirement, i.e. for electronic communication, thus augmenting the communal character of information society.[5] Within the domain of electronic environment, entire international communities have sprung up. Their members

have been actively enlarging the electronic world through transferring to it their activities, business and part of spiritual existence.

This process leads to the conception of electronic environment as the reality of electronic *realis,* considered as alternative in relation to the reality of the sphere of being. We shall apply the term of ontoelectronics, in order to define the reality of electronic *realis.* This notion shall be helpful in partial description of the process of emergence and quality of the reality of electronic *realis.* The analysis of ontoelectronics results from the origins and development of electronic environment and human involvement in it. This concept is expected to be useful in description of electronic *realis* in the categories of the possibility of existence, considered as human reality.

Doubts arising with respect to metaphysical solutions in relation to assumed reality, e.g. from phenomenological perspective, encourage the speculation whether the issue of electronic *realis* could be included in the area of ontological research, e.g. at similar description level as the problem of the real world, thus becoming a separate field of analysis. Within the realm of ontoelectronics, the analysis targeted on assumed reality does not seem necessary, or indeed possible. The proposition of the existence of electronic *realis* neither expands nor supports the analysis of the existence of reality. The electronic *realis* is taken as the object of the analysis of "the real", which is related to the shift of ontological analysis from the sphere of reality to electronic environment.[6] For obvious reasons, it is yet difficult to accept the equivalence of the reality of electronic *realis* in relation to the assumed reality. The electronic environment has been developing along divergent lines, when compared to assumed real world, while the category of development cannot be applied to reality outside the area of natural evolution or human interference. Possibly, the reality of electronic *realis* has been developing as alternative reality in relation to assumed reality. In this sense it would constitute a natural human environment, providing the source of possibilities which cannot materialise in assumed reality, an area encouraging the transcendence of barriers, on the way to further expansion of the human world. Tentative indication of certain qualities of the electronic environment might reveal its nature as a type of reality. Yet, conducting the analysis in categories comparable to the discussion of the real world gives rise to many doubts.

Ontoelectronics applies both of the above mentioned concepts: the "electronic environment" and the "electronic *realis*". The difference between both concepts lies in their potential (scope, capacity) to coexist with humans.

The electronic environment has acquired its own description, mainly in connection to the notion of virtual reality,[7] including the generally accepted characteristics such as interactivity, immersion, simulation, telepresecne, telematicity, and artificiality.[8] Alongside the technological or utilitarian aspect, they also rely on the philosophical dimension, encouraging the formulation of query about the nature of electronic environment in the aspect of human reality. The existing terms pertaining to electronic environment preserve its separateness from the real world, and convey the spatial meanings. The description relies on a degree of independence, and thus it obtains a partially objective characteristic. The electronic environment is often called artificial, with emphasis on its genetic relation to technology, and it is treated as superstructure over the reality – e. g. *virtual reality* (Jaron Lanier), *artificial nature* (Myron Krueger), *virtual realism* (Michale Heim), *virtual image spaces* (Oliver Grau), *new nature of reality*

(Nicole Stenger), *parallel universe* (Michael Bendikt), *work space* (Steve Pruitt, Tom Barret), *computer culture* (Dave Healy), *virtual community* (Howard Rheingold), *communication space* (Ryszard W. Kluszczyński), also *virtual worlds*, *environment space*, *electronic space*, *artificial world*, *extended world*, *second nature*, *digital realm information space*, *digital world*, *numerical space*, *networked environments*, *hypermedia environments*, *virtual environment*, *synthetic environments* or *digital culture*, *computer culture*, *database culture*.

The description of the reality of electronic *realis* concerns the treatment of electronic environment as a sphere of humanist reality, life space or existence sphere. It is the situation where the original functions belonging to the electronic environment lose their significance, mainly in their utilitarian aspect, while gaining new properties. The functional aspect of the "utilization" of electronic environment is replaced by the human aspect of the "existence" of the reality of electronic *realis*, which can be seen clearly in the Internet, but also to some extent in the media, where the emerging *realis* transcends the utilitarian aspect and is treated as reality.

The electronic environment is described mostly in functional and utilitarian categories. It has a quantitative dimension and is related to the saturation of reality with electronics. This environment pertains to reality, intertwining with it, creates a system of possibilities, the web of interconnected aspects of electronics use, diversity of the *appliances* of their generation and applications. The electronic environment is an expression of the practical application of electronics in reality, while remaining the utilitarian sphere; it contains the capacity of development towards electronic *realis*, thus gaining a human dimension.

The "electronic *realis*" appears as stemming from the "electronic environment", and arises when electronics "reaches" for the human world. In evolution, it influences the intensification of the scope of coexistence with human beings, develops in the qualitative dimension, adapting humans e.g. in the emotional stratum.[9] In this interpretation, the electronic environment belongs to the assumed reality, while the electronic *realis* itself determines the reality. Thus, the electronic environment would appear as a primary concept preceding the notion of electronic *realis.* The electronic *realis*, treated as equivalent to assumed reality, is separate from it, and does not complement it. The electronic *realis* is not intertwined with reality, and has no concrete relation to it. The transformation of electronic environment into electronic *realis* pertains to construction of human environment, which leads to the elimination of processes in reality – eliminating the impacts of reality. The ever expanding scope of human coexistence with the electronic environment may help in a more precise description of the process of the mutual development of the electronic *realis*, enriching it with the anthropic dimension and intensifying the capacity for further accommodation of human being.

The reality of electronic *realis* is understood as the sphere of human coexistence in mutually targeted relations, reflecting the impact of emerging electronically-based personality. The dispersed character of this environment encourages the development of independent relations, other than those remaining in reality.[10] The electronic *realis* domiciles and creates personality, builds mutual references, and partially creates its own world. Human inter-relations may therein obtain the significance which does not occur in reality, and is related to the mode of human existence and the scope of availability in this environment.[11]

The reality of electronic *realis* could be understood as the space to be discovered and managed by man. In response to the potential of human involvement, it evolves, revealing its quality. In particular their spatial character seems to distinguish the type of interdependencies immanent in reality, from the inter-relations pervading the electronic environment. The spatiality of electronic *realis* fills or overgrows the space of reality, building a superstructure over it. The real world supports the human being leaning towards the electronic environment, and shifting his activity towards the electronic *realis.* To some degree, this environment eliminates time-space as well. It decentralises the understanding of space in the physical sense, and appears as environment created for man and deprived of the category-based limitations of space appearing in reality. Certain limitations determining human being in reality disappear in the electronic space: the non-temporal and dimensionless availability of electronic *realis* provides the impression of human adaptation to this environment. In reality, man encounters the time-space dimensionality making reality available under categorial conditions. By implementing his activities to electronic environment, man fills the electronic space, makes reality available, while simultaneously increasing the space of electronic *realis.* The fact of human belonging to the *realis,* together with life processes and mentality, intensifies the closeness of multifarious, constantly changing relations and anticipates the next directions of interactions.

Ontoelectronics accepts the categoriality of matter, indicating its nature as substratum for the real world and electronic environment. The bimodality of understanding matter is emphasised, e.g. through its difference and genesis. The non-electronic matter, inherited by man, has an extra-human dimension, both genetically and historically. By arising and enriching his humanity, man encounters matter on his way, turns towards it and grows into it, masters it or tries to be liberated from it. Electronic matter is human-made. Man encounters it on his way as his own creation. Genetically it grows out of man, as human substance for further creation. Non-electronic matter limits man from outside. Humans have been creating their world by "forging it", overcoming the non-electronic matter, e.g. the physical matter. Electronic matter seems more perfect, more plastic. It is, so to say, a construction material for the human world. In the evolutionary aspect, electronic matter can be seen as the ultimate prize gained by human search and endeavours. It provides the stepping block to spring beyond the primordial physical reality and reaching towards the electronic environment which has been formed exclusively through human creation. The evolution of matter from non-electronic (physical) to electronic may lead towards the determination and description of immateriality in the categories of existence mode. Creation obtains immaterial dimension, and consciousness reaches the extra-physical and non-corporeal form of existence.[12]

Ontoelectronics includes also the subjective aspect, i.e. in our case the process of anthropization occurring between man and electronic *realis.* Human split between the assumed reality and the reality of electronic *realis* leads to the "exhaustion" in the realm of one of those environments. It seems that man is not prepared to "real" experience in two different types of reality. More and more often he faces the need of choice. Anthropization is the process of transferring to the electronic *realis* the human qualities, which have been targeted towards the real world. Electronic *realis* has been developing in parallel to increasing expectations, perception of possibilities, influencing human belonging to the sphere of electronics. Anthropization consists in departing from or

forgetting about reality, transferring the attention to the world of electronic *realis*, human domiciliation in it. Anthropization is a further stage of historically divergent stratification between reality (nature) and civilization.[13] Anthropization carries expectations greater than those encountered in reality. It is the process of adapting the environment of electronic *realis* to human world, the emergence of reality gradually engulfing human existence.[14] Anthropization seems to be underpinned by two above mentioned complementary processes, which lead in opposite directions, i.e. implementation and accommodation, which result from the double-sidedness of the phenomenon of interactivity, and occur between man and the electronic environment.

Implementation has its origin in human being, results from the need of notional adaptation of the reality of electronic *realis,* leading to conceive it as human's own sphere. Implementation leads to providing electronic environment with properties which enrich the quantitative measure of algorithm, introducing to the electronic environment the qualitative, human dimension. It can be ventured that the anthropization of electronic environment results in its loss of utilitarian aspect, that remains in reality, and transforms the electronic environment into the reality of electronic *realis*, which gains the aspect accompanying experience. Human existence in the reality of electronic *realis* may also lead to liberation of personality and implementation of properties, which are not always well accommodated by reality, while getting the opportunity to exist in the reality of electronic *realis.* Implementation is real involvement, externalization of needs, targeted on the reality of electronic *realis.*

Accommodation has its origins in the reality of electronic *realis*, leads to its expansion through adaptation of new messages, guarantees openness and availability. It could be compared to the internalization of environment by the electronic environment. Accommodation is related to information holding capacity, the level of availability and the quality of interactive relations in the electronic environment. It is oriented towards invasion activity and homogenization of accommodated messages to the structures of electronic environment.

Anthropization is the process of creating the reality of electronic *realis* in result of the implementation of human properties and their accommodation by electronic *realis*, which is related to the transposing of human activity from the sphere of reality to the reality of electronic *realis.* The transcending subject gains the interactive environment in the form of electronic *realis,* capable of assuming human dimension, probably in a more adequate way, compared to assumed reality.

Blogs and MUD environments can provide an illustration of these processes. The diversity of these environments is related to their capacity to accommodate such individual qualities as ambition and personality expression or life objectives. It is reflected in the quality that can be defined as non-determined singularity within the electronic community, including personal attitude towards global, nonlinear communication. Accommodation defines the non-self-interested and true values, while the simulated qualities stay behind in the real world. The messages, in the form of inter-human relations in the blog, also indicate their divergence in relation to reality: the conservative relations remain in the real world. In the electronic environment, the appearing information seems to provide evidence about the blog owner and blog co-participants in a non-determined way, made available to the web community. In this

meaning, the blog is an original creation, rather than a processed image: a mechanic message from the real world. Rather, it is the real existence of man identifying himself with the potentially unlimited group of other participants using the environment of electronic *realis.* Blog is the communication medium in the area of privacy and personal experience, made available to the anonymous mass receiver, a voice thrown into the electronic space.[15] The electronic environment causes that both the anonymous owner and the receiver of messages meet in the name of common cause, without artificiality, experiencing directly the important issues. The blog participant may be quite inactive in reality, may be closed to the real world and opens up to the group of virtual community, incorporating his personality in the electronic person active within the *realis* environment. The real world remains the supporting skeleton of existence, the quality of which is transposed to the electronic *realis.* The phenomena occurring in reality obtain their real meaning and expression in the electronic environment of blog. For the blog participant, reality may be a source of sentiments, while the *realis* becomes the environment of everyday experience.
The electronic *realis* of the blog accommodates the qualities targeted originally at reality. In a way, it deprives reality of the qualitative dimension of human being. Reality retains human fuctionalism, de-humanised man, natural robot - the man who has transposed his activity and his *self* through implementation to the electronic *realis.* Blog focuses and develops groups. It does not *contain* an imposed form or artificiality. Instead, it contains the real and live meanings. Blog leads to the following statement: *if you want to learn something true about someone, open his/her blog. There, you will find the truth about man. In reality you will encounter only the simulation of man.* The hyper-textual rhizomatic growth of blog enables the constant inflow of new participants, the enriching of mass privacy and progressing. Through implementation, blog becomes the reality of participants, accommodating more and more meanings and expanding the dimension of *realis*. Blog joins and groups, provides the forum for common co-existence of participants sharing similar views and emotions. The grouping is made quasi-automatically, with the speed of the *appliance,* fishing out from the human shawl in the electronic *realis* the group that becomes a virtual community, joined by contacts and exchanging shared meanings and experiences.

Blog is the venue of true communication. The emotions implemented into the electronic environment are real.The anthropization capacity occurs to an even greater extent and is more profound in MUD (Multi-User Dungeon) environments.[16] These environments display high level of inter-activity leading to easy accommodation. The accommodation is widespread and proceeds smoothly. The MUD environment is extensive, rich in meanings, and relatively independent. In effect, the transposing of activity is smooth, and occurs quasi-unconsciously in community with other users of MUD *realis.* Accommodation and implementation are born spontaneously in human being – the divergence from real world seems so significant and valuable that man turns his back on the real world, disappears in it, just to appear anew or to be born in the electronic *realis* of MUD. The implementation in MUD environment is tantamount to the "drying out" of human within reality and the flourishing of his/her electronic nature. The creation of electronic personality makes the subject realm in the electronic environment. The interest in reality fades, while the electronic world grows. The total lack of utilitarian dimension in MUD environment, the inter-human relations and the possibility to create the space of electronic world involve and reveal the needs: the participant transfers to the electronic reality of MUD world, where he/she meets the gathering of other participants. The

question *who are you?* may elicit the answer in MUD world. The simulated personality has been left behind in the real world. The queried party experiences his/her time in the electronic world, while the *avatar* represents him/her in reality.

Simulation is an appropriate term neither in the world of blogs nor in MUDs, if we accept that the meanings implemented in electronic environment are true. In electronics, the concept of simulation is fairly relative, and seems closer to the existence in reality. It can be suggested that simulation starts to concern reality, while the electronic *realis* is inhabited by real humans, readily expressing their feelings and ambitions. Simulation would be related to the mechanic reflexes of conservative functionalism, remaining in reality, while vitality would be the attribute of the electronic *realis.*[17]

The implementation of the electronic environment influences the development of the *realis* environment. Human being perceives the effect of other participants' activities in the form of emotionally-loaded and full of meanings electronic *realis,* promoting the sense of domiciliation, handiness, foresight, acceptance and adaptation.

Nowhere outside electronics can such level of anthropization be found. We assume that it is higher than the anthropic dimension of reality. Anthropization forms and blurs for the subject the differences between the electronic environment and the assumed reality. It is possible that the evolution of electronic *realis* leads towards the level of electronic vitalization. Similarly to the assumed reality in the past, the current electronic environment seeks its own form of life in the form of human existence. Reality, which is a separate ontological stratum, seems to be relatively inaccessible to humans and less susceptible to their impact, compared to the electronic environment. Perhaps, due to the inaccessibility of reality, humans have been creating within the electronic environment the reality which is closer to man than the assumed one. Transposition obtains a new area. The concept of human extension reaches consciousness,[18] which migrates to the electronic environment. In effect, man is translocated to the level of electronics, beyond the horizon of real world, into the sphere of electronic *realis.* It is more fruitful to experience *realis* through non-bodily approach than to experience reality through its physical character. *Res cogitans* finds a new area in electronic *realis.* It is not the splitting of man, but the discovery of *realis* reality, that is attained due to electronics. In the process of evolution, man is deprived of the properties of physical dimension. Anthropization is confirmed through the creation of electronic environment, which may appear closer or more compatible with human nature, compared to physical world. It is more plastic, searched for and expected in the process of evolution.[19]

An example can be seen in the work of Net Art by Victoria Vesna, entitled *Bodies, Inc.*[20] [1995]. The author refers to the creation or birth of the receiver in digital form cyberself, the web citizen, belonging to the electronic community. The digital person participates in the Internet activities. His/her birth constitutes the emergence of electronic personality of human being. At first, only the external view is expressed, but in the course of the extension of interaction sphere, it obtains the reputation and meaning in the electronic community. Our digital body is not only the simulation of man, it is the adoption of electronic "body", the birth of human in *realis* environment. The electronic body is necessary for electronic existence in electronic world. The obtaining of cyber-body seems justified and handy at some stage of the Internet utilization. Man appears under the personage expressing also personality, independently selected, accepted and expected

from the very inception. The digital body may be sufficiently own, and personal, so that it becomes the centre of endeavours for attaining electronic *self*, with careful development of its extra-"physical" dimension, through the mode of behaviour, building relations with others, enrichment of the scope of messages in the environment of electronic *realis.* An additional dimension of Vesna's project consists in the concept of self-creation or the possibility of programming the creatable. The project contributes the idea of genetically planned human, closely related to his/her digital body.[21]

Through anthropization, humans populate the *realis* environment, while electronics reaches out to reality and consciousness. Human penetration into the electronic space could rely on similar mechanism as anthropization of the assumed reality, while it seems that the electronic environment can be described as more accommodating than reality, the more so that the anthropization of electronic *realis* has barely started. Electronics invites and introduces humans to the reality of electronic *realis.*
Reality returns to its original dehumanized form, as if human inhabitation of the real world was but temporary. The assumed real world, as the area of life, does not need to be the only sphere of existence. Maybe it has been assigned to humans temporarily, at least in the sense of exclusive habitat. The electronic *realis* environment may provide the habitat for human existence. The more so that it creates new possibilities, nonexistent in the assumed reality. Electronic *realis* involves human being actively in the course of events. It is a human world well prepared to welcome human beings.

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[1] J. de Mul, *Digitally Mediated (Dis)embodiment*, in "Information, Communication and Society", vol. 6, no. 2, 2003, s. 256.

[2] W. Welsch, *Artificial Paradises? Considering the Word of Electronic Media – and Other Worlds*, in W. Welsch, "Undoing Aesthetics", Sage, London 1997, p. 181.

[3] W. Welsch, *Artificial Paradises? Considering…*, in W. Welsch, "Undoing Aesthetics", Sage, London 1997, p. 175.

[4] S. Turkle, *Life on the Screen: Identity in the Age of the Internet*, New York, Simon & Schuster, 1995, pp. 167-170.

[5] R.W. Kluszczyński, *From Film to Interactive Art.: Transformations in Media Arts*, in: O. Grau (ed.), *MediaArtHistories*, MIT Press, 2007, pp. 216-221 and 224.

[6] *Appliances*, e.g. computers supporting the electronic environment are subject to the analysis of the real world. In the aspect of existence, this concept belongs to description within the ontology of the real world, remaining in the categories of possibility. The query about the existence of *appliance* in the aspect of electronic environment may be formulated e.g. in description of the origins of electronic environment, with no reference to reality within postulates pertaining to existence.

[7] M. Krueger, *Artificial Reality II*, Addison-Wesley Publishing Company Inc., 1991, p. 261.

[8] M. Heim, *Metaphysics of Virtual Reality*, New York, Oxford University 1993, pp. 109-128.

[9] S. Turkle, *Life on the Screen: Identity…*, New York, Simon & Schuster, 1995, pp. 177-212.

[10] What we mean is the possibility of multi-linear contacts (in the thematic plain and in the mutual penetration of semantic strata) which enable the creation of relations resulting from the plurality of electronic environment potential. The participant of electronic environment, having articulated tentatively his/her needs, directly targets the area of his/her interests, usually grouping many other interested participants (H. Rheingold, *The Virtual Community:*

Homesteading on the Electronic Frontier, (revised edition), MIT Press, Cambridge Massachusetts, London, England, s. 362-371).

[11] F. Popper, *From Technological to Virtual Art,* Massachusetts Institute of Technology, 2007,
p. 355.

[12] Krystyna Wilkoszewska in her article *Aesthetic Experience: From Contemplation to Interaction,* describes the metaphor of eye, which is caused by distance: "Man changes unbearable life into pictures; in this way, lost in contemplation, he achieves a sweet illusion of safety".
(K. Wilkoszewska, *Aesthetic Experience: From Contemplation to Interaction*, in: C. Entzenberg, S. Säätela, "Perspectives on Aesthetic, Art and Culture", Thales, Stockholm 2005, p. 342).

[13] D. Healy, *Cyberspace and Place: The Internet as Middle Landscape on the Electronic Frontier,* in: D. Porter (ed.), "Internet Culture", Routlege New York, London 1997, p. 56.

[14] The partial anonymity provided by the environment of electronic *realis* may alter the subject's attitude to his/her own activities and their scope, which is different in comparison to reality. Man mediated in the *appliance* obtains the multi-linearity of activities, and has the possibility of contact and selection of information, making quasi-simultaneous choices, which influence the extension of possibilities and multitude of links with others. Reality can eliminate or reduce certain attitudes, while electronic *realis* provides conditions for individualized involvement, individualization and self-identification. On the grounds of rhizomatic growth of electronic environment, a spectrum of availabilities emerges, and choices are not accidental. Decisions result from comparisons. Instrumentalisation is also limited, while contacts develop spontaneously and without external determination. In effect, the electronic environment is the space of free communication (D. Healy, *Cyberspace and Place…*, in: D. Porter (ed.) "Internet Culture", Routlege New York, London 1997, pp. 62-64).

[15] D. de Kerckhove, *Hybryd: Elements of a Re-mix Culture,* in: G. Stocker, Ch. Schöpf (ed.) "Hybrid – living in paradox", Ars Electronica 2005, Linz, Hatje Cantz 2005, pp. 15-16.

[16] We have tried to apply elements of both ontological and anthropological analysis, considering the significance of the reality of electronic *realis* as capable of qualitative enrichment and hybrid- structured, i.e. created by participants and prepared for multidimensional accommodation of human being, participating in MUD (Multi-User Dungeon) interactive environment, involving the participant's emotional and spiritual powers. An example is provided by an electronic world known as *Second Life.* Here, through interactive mediation humans can go beyond simulating experience, and build real relations with electronic embodiments. They are real though appearing exclusively within the electronic world. In the first months of 2007, the number of *Second Life* participants grew over twofold, from the level of 2.5 million to over 6 million. This wide interest in *Second Life* may be partly underpinned by the behaviour patterns belonging to the assumed reality. In effect, the needs of reality and significance of electronic environments are intermixed. *Second Life* creates the possibilities, and has a specific potential which is revealed essentially in the electronic environment, though the impacts and messages contained in it can be also targeted at the reality. The electronic reality obtains partly the dimension of the real world. From the commercial or behavioral points of view, this feature augments the magnetic impact and value of *Second Life.* Yet, the main attractive element of *Second Life* consists in the diversity of relations, their creation and openness, which is probably related to the need of revealing one's presence in reality, and experiencing it in this way. (www.secondlife.com).

[17] H. Rheingold, *The Virtual Community: Homesteading…*(revised edition) MIT Press, Cambridge Massachusetts, London, England 2000, pp. 149-180, and p. 366.

[18] Jos de Mul in his article *Digitally Mediated (Dis)embodiment*, applies the term of *poly-centric experience.* It refers to the experience of transposing the body, in the meaning of perceiving one's body in virtualized way. Humans experience their *self* in he electronic form, referring to it with similar emotions and approach as in relation to the biological *self.*

Consciousness seems to relate interchangeably with the biological and virtual body, depending on the environment currently inhabited (J. de Mul, *Digitally Mediated (Dis)embodiment*, Information, Communication and Society, vol. 6, No. 2, 2003, pp.259-261).

[19] In 1998, a chip was implanted into the arm of a human being. Through application of bionic technology, professor Kevin Warwick obtained new possibilities of communication both with the real world and the Web. In 2002, a more modern appliance was re-implanted (www.kevinwarwick.com). In 2004, Cyberkinetics announced the introduction of new bionic connection – *GateBrain.* External chip was implanted into the brain of paralyzed patient, Matthew Nagle. Through the implant, the patient started a new type of communication with the real world: he started to operate the computer and other electromechanical devices. Implants enable communication through electronic environment, which transforms into electronic *realis* and has the potential of creating an area of existence.

[20] Ch. Paul, *Digital Art*, Thames and Hudson, London 2003, p. 168, and www.bodiesinc.ucla.edu/welcome.html

[21] Victoria Vesna's art Project is extremely emotionally involving. In certain elements of the Project, humans create their bodies, often in entire families, express their suffering and pain, as if the electronic embodiment was expected to receive and reveal the feelings which – in assumed reality – remain internal to humans, closed and unavailable for direct expression, which seems to be possible in electronic *realis.* The Project frequently demands participant's acceptance of messages, and the participant's agreement for further stage of involvement is required. The encounter with self-created and electronically identified human creates the impression that the receiver is allowed to close contact with delicate emotional strata of another man. It is often unimaginable that such profound penetration of another human's internal emotions be possible in the real world (www.vv.arts.ucla.edu).