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EDUCATIONAL E-ENVIRONMENT THROUGH ENGLISH VOCABULARY DEVELOPMENT

The study objective is the investigation of innovative linguophilosophic aspects of English vocabulary development in the sphere of cybertechnologies. Research methodology is based upon the supposition of the cyberspace-related word-stock terminological nature. The dual systematization character of terminology determined the analysis of both linguistic and external (ontological, anthropological, social) paradigmatic parameters of English cybervocabulary.

Paradigmatic parameters of English computer terminology are featured from the following perspectives: perception of basic dimensions of cyber-reality ("space" and "time") and anthropologic categorization of cyber-reality, thus both the anthropocentric and the sociocentric paradigmatics of English cyber vocabulary are reflected. The "artificial" digital environment is acquiring more independence as far as the "parent" reality is concerned and establishes the basis for being considered a separate metalingual entity. Hence, one of the prior ways fundamental ontological categories are exposed within cyberspace being through the language (precisely by means of contributing to the modern English vocabulary), we may assume the natural language itself to find its realization in ontological manner.

Key words: *linguophilosophy, cyberspace ontology, cyber-antropisphere, vocabulary development, cyber vocabulary, cyberterm.*

Notes on methodology

The world surrounding a human being is endless in multiple varieties of its forms. In the course of centuries the mankind has been fulfilling the attempts to represent the objective (as well as subjective) reality through language to the utmost. However, at the dawn of the 21st century the human mind has progressed quality-wise in the ways and methods of reality perception [1; 2]. Cyberspace stands an integral ontological entity [3], a unique environment demanding new cognition and perception ways via complex philosophic, cultural, social, linguistic approaches, providing unlimited opportunities for human intellect and language development and research.

The current study primary *objective* is the investigation of the innovative linguophilosophic aspects of the English vocabulary development processes in the sphere of new computer technologies. Over 3000 cyberspace and computer technology related lexical innovations of the English language served as *research material*.

Linguophilosophic approach to the study of English lexical innovations in the new computer technologies sphere allows to efficiently investigate lingual manifestation of cyberspace ontology (namely space and time dimensions), to closely study the generic categories and dimensions of cyberanthroposphere, to denote its existential anthropocentric character.

It ought to be pointed out that the research centres upon the synthetic definition of the '*philosophic*' notion which incorporates ontological, gnoseological and anthropological parameters.

Overall, the methodology premise of the study is based on the following parameters:

1. *synchronicity*

– cyber vocabulary development pace => pace of technosphere elaboration (ontology, phenomenology, anthropology, cognition)

– ≈11–20 units per 1 month, that sum totals to an average of 180 units per 1 year (≈49–60 % of emergent English vocabulary units as per *WordSpy, WorldWideWords, Merriam-Webster Online engines*)

2. *isomorphism*
– cognate verbal coding of computer and real realities respective structures
3. *flexibility, adaptivity, dynamics of cybervocabulary development*
– unit information density, hybridization, morphological status and function redefinition

Henceforth, the methodology argument states that the phenomenological approach to the study of English cybervocabulary allows to:

– identify the semiotic substrate of emergent units as an empiric source and result of cyberspace substance reveal;
– *identify cyberterm* as a specific intralingual and extralingual phenomenon turns out to be both the cognitive means of perception and comprehension as well as the ontological categorization source of cyberspace and adjacent technosphere.

Cyberlanguage meta status: object, subject matter, tool of cyberspace research (mixed reality — P. Milgram and A. F. Kishino — / Web 3.0 type structure).

Modern cyberspace apparently presents a functional ontological model of Being, the linguo-semiotic presentation of which takes place currently and prospectively within cognition and research grasp, as opposed to non-cyber-reality, linguo-ontogenesis of which could be retrospectively constructed on mostly hypothetical principles.

Research methodology is based upon the supposition of the cyberspace and computer technology-related word-stock terminological nature which leads to the impending necessity of the terminology as a specific lexical layer study. The dual systematization character of terminology determined the analysis of both linguistic (morphological and semantic) and external (ontological) paradigmatic parameters of computer terminology of the English language. Throughout the investigation we've come to the conclusion that due to its polydimensional nature the term acquires the unique, supralingual status (the entity of Being and Language respectively). The cyber term as a specific intralingual and extralingual phenomenon due to its complex nature turns out to be both the means of perception and comprehension to a degree as well as the metaphysic actualization and categorization source of the modern cyberspace and technosphere. The introduced approach to defining the cyberterm might pose as a key to comprehending the hidden mechanisms of linguistic actualization of cyber-reality.

Semiotic Paredigmatics of English Cyber Vocabulary

Linguistically the development of English computer terminology acquires an ambivalent character. Primarily, the sources of English computer vocabulary root in the conventional word-formation types, such as affixation, abbreviation and acronymy, telescopy, etc. and semantic derivation. However, according to our research results, the enrichment process of the computer terminology of English incorporates the emergence of the word-formation ways and means, quite authentic to the given lexical sub-system, such as: semantic-functional transorientation, heterogeneous reduplication.

Semantic-functional transorientation — is a transformational process comprising of 2 stages. Throughout the *initial stage* the given lexical unit semantics acquires a "technogenic component" (seme rendered as "of or referred to modern computer technology").

The *ultimate transformational stage* involves the attribution of a new functional status to the semantically modified unit which proceeds through computer terminological paradigm as a structural component. Up to date within the English cyberterminology the given pattern is rendered via such elements of unlimited productivity as *cyber-, web-, electronic-, virtual, techno-*, etc.

Heterogeneous reduplication in its turn — is word-building model based upon parallel simultaneous functioning within cyberterminology of authentic and borrowed (semiotically heterogeneous), semantically equivalent or identical formants. It should be noted that not only affixes are (super- / über- / arch-) "heterogeneously cloned" but conceptually relevant stem morphemes as well (way / Bahn, city / polis / stan, etc.). This serves as an apparent manifestation of computer lexical unit terminological nature through the transparency of the ontological connection between the lingual sign and notion / concept.

Besides the progress of terminological system, cyberspace determines the new conceptual approach to the "word-formation element" notion. Our research results actualize the possibility to derive a unique element of word structure, designated as a *false morpheme*, the chief distinctive feature of the given unit being its freelance motivation.

False morpheme is a part of an inherently monomorphemeic word arbitrarily singled out to productively function retaining the original meaning of the parent lexeme. The empirical material allows to position

as false morphemes an array of monographemic (*e-*, *i-*, *v-*, *-b*) and polygraphemic (*-jack, -zine*) abbreviations as well as the verbalized form of an electronic address unit (dot).

Cyberspace Ontology through English Vocabulary Development

The prominent paradigmatic parameters of English cyberterminology are featured from the following perspective: the terminological (lexico-semantic) perception of basic metaphysic dimensions of cyberspace (that being "space" and "time"). Virtual reality emergence resulted in some significant alternations within the perceptive sphere as well, that being, above all, the rethinking and reshaping of the corner-stone ontological and existential categories: Space, Time, Reality and Knowledge.

Here at once we deal with a linguistic (or rather philosophical) paradox. From the metaphysical point of view "reality" is an environment given to our perception and observation. Herefore, there seems to be no need to attach an attribute "virtual" to it, which bears its first meaning as something "true" (or "real"). On the other hand, the space the World Wide Web opened access to forms in itself some sort of a "fourth dimension" which cannot be sensually perceived or recorded to the utmost and thus cannot be logically defined as "reality". But it does exist. There are no doubts of it. The cyberspace is in current being and moreover, functions in the ways resembling greatly those of "natural" reality. Linguistically the paradox proper has been solved in a peculiar way. The "virtual" notion has changed its meaning to a complete opposite, denoting now something non-existent or WWW-related.

Besides that a peculiar tendency is observed lately, to conceptualize and denote the natural environment in terms of its opposition to cyberspace. In the recent years such retronymic neologisms have been recorded as *real reality* (note the deliberate tautology for opposition sake) and *meat space* (contrary to cyberspace). Apparently, the objective reality is exposed in the dialectical philosophic unity of real and virtual parameters, the latter being an indispensable implicit component of the lingual actualization of modern Being. The ordinary, non-cyber world is rendered recently as *Outernet* as opposed to the Internet. Thus we may reach a conclusion that with impending extrapolation of computer assisted technology and cyberspace spread the concept of the Net acquires the peculiar ontological status.

As long as it has been assumed that cyberspace exists as some special sort of material entity the question arises of how it should satisfy the necessary matter parameters — namely those of Time and Space. As for the Space, cyberspace is apparently endless (or at least its boundaries have not been distinguished up to now — hence the emergence of such concepts as *deep Web*, *Internet 2*, *black hole*, *forking*), therefore this very characteristics may not be defined numerically but only descriptively (thus through vocabulary means). What is extremely peculiar is that the main emphasis is made again on the real reality connection, for cyberspace, still being treated as Reality, may be referred to as *augment reality* or *annotated reality* revealing thus the notion being somewhat supplementary. However, metaphorically it is also defined as *a greybar land*, this very notion signifying the ideal space beyond certain perception limits.

Moreover there could be identified the lexically fixed platonic binary division of the special dimension of the technosphere, namely the differentiation of cyberspace into ideal and material planes accordingly (*technopolis, nerdistan*).

Before long the Time has existed in cyberspace "virtually" (in the newest meaning of the notion). This implied that every member of the Internet community used the time convenient for him / her according to his on-the-spot location. In other words the Time was "fragmental", distinguished in direct correspondence with the non-virtual one. But, however, a proposition has been made throughout the Web to provide a single uniform Internet time, measured not in terms of minutes and seconds, but in terms of information units (1000 per day) [4]. (Note yet another linguo-ontological cornerstone of cyber-reality — information).

It ought to be pointed out that the leading conceptual and notional dominant of cyber temporal innovations lies within the plain of Past vs. Future opposition — that is periods of *before* and *after* cyberspace elaboration (*yestertech / retroware* — yesterday technology, and *new chip* — newly introduced technology).

Moreover, the lingual elements of computer related temporal paradigm incorporate the apocalyptic semantics, terminal chronological parameters (*doomsdate, Y2K paradigm, TEOTWAWKI — The End Of The World As We Know It*, *Y2K leap year bug, Y2,38K problem*), which serves as the apparent validation of cyberspace existential nature.

Cyberspace Anthroposphere through English Vocabulary Development

The anthropologic terminological categorization of cyber-reality involves both the anthropocentric and the sociocentric paradigmatics of English cybervocabulary. It seems appropriate to systemize the present and potential English computer neologisms through multidimensional aspects of anthropic virtual existence, namely: self-identification, gnoseological social stratification, economic interaction, etc.

While the Time and Space are the ontological categories by which Reality is defined, Knowledge (Gnosis) may be considered one of the dimensions human mind has established itself with, the anthropocentric coordinate within the ontology of Being. According to our calculations approximately 1/3 (one third) of the researched cyber vocabulary consists of the human-factor related units. Though a much greater number of virtual neologisms may be viewed as anthropocentric (both directly and implicitly) we would like to dwell here upon the ones defining precisely the WWW users. In this respect we find it possible to trace Knowledge "status" in cyber environment.

It has turned out so that cyberspace has been (and is being) created, used and altered simultaneously, dividing thus the ones who contribute to these processes into two major groups: those who *know* how to influence the very nature of cyberspace and those who *do not know* how to do it and due to this use the Net solely for utility purposes.

The tendency has been thoroughly reflected in the English language. One of the most prominent notions defining the Knowledge progress and dynamics within cyberspace is the so-called *information food chain* [5]. It has little to do with the one presented in nature (though there are certain metaphorical correspondences), but denotes a process of modifying Information from raw data (bits) to processed data (information proper) and later on to assimilated data, that being Knowledge itself. Besides, it metaphorically conceptualizes the intricate route from a computer neophyte to an expert.

The whole multitude of cyber-related persons got the name of *computerdom*. Linguistically and conceptually they have been divided into *cyber elite* and *cyberaddicts*. The common trend is to concentrate the new lexical units denoting computer-"pros" round the Knowledge-marked notions. That way such new word-building elements as *-guru, -geek* and *-savvy* have acquired outstanding popularity providing the basis

for such neologisms as for e. g. *cyber-guru, cyber-geek (technogeek)* or *computer-savvy (net-savvy)*. It should be specified that all the elements listed above bear the meaning of "professional" (as for the word *savvy* it was adopted into the English language from French as a "modified" form of the verb "savoir" — to know).

Computer professionals are also referred to as *cyberati* or *digirati*. It is necessary to point out that this kind of word-building model, though new, has become widely used in the modern English vocabulary creations. The idea is to blend the corresponding word-forming element with the word "literati" which functions nowadays in the meaning of a "properly qualified; competent person". Besides that, new vocabulary units appear to add up to the cyberspecialists superiority status (due to the Knowledge they possess), defining them as being in charge of the affairs in the Net: *E-mentor*, *Webrarian (Web + librarian)*, etc.

However, the difference between a new-comer and a cyber-professional at a certain point may be a vague one. Such lexeme as *knewbie* may, for instance, serve as the best illustration for the statement. The neologism presents a general notion for a "pro" being actually a homophone of another neologism — newbie — denoting a computer "novice". So, as we can see, the first notion (knewbie) semiotically integrates two "skill-wise" opposite categories of users, providing with a premise for their recomprehension and reconceptualization.

Unusual as it may seem, but non-professional computer users as a social stratum have found almost as various reflections in the modern English language as the experienced gurus. Generally non-pros are referred to as *randoms*. Alongside they are subdivided into read-only users (the ones that use the Net only to fish out information) and the so called *shiftless* — unaware of all the possibilities of Internet provides. Besides that, there happen to be *lusers* in cyberspace (by phonetic analogy with the word "looser"), who use the Net by intuition, without knowing exactly how to operate it. Same way as it is in the "real" world, in cyberspace the absence of experience and expertise is being disguised under pretended or assumed Knowledge. That way a user, constantly installing someone else's HTML sources in order to look confident is referred to as *paster-boy* and the one pretending to great knowledge but lacking fundamental skills in "computer savvy" is linguistically presented as a *poser*.

It needs to be pointed out that the Knowledge concept lingual manifestation within cyberspace is fulfilled via the following means:

1. through explicit verbalization (employing elements which nominate or refer to the concept of Knowledge directly) — *chief knowledge officer, knowledge engineer, knewbie, cyber-savvy, Net-savvy*;

2. via secondary semantization (the gradual transformation of the corresponding unit semantic plane as to incorporate the archseme "cyber-professional" — *geek, nerd, avatar, freak* etc.

On the other hand, the referents of absence / lack of knowledge concept fall under further gradation:

a) the ones negating or claiming no reference whatsoever to cyberspace and / or computer technologies — *Internot, neo-Luddite, leadite*;

b) the ones using the Net as an information search tool — *read-only user*;

c) the ones unaware of the wider spectrum of WWW utilities — *shiftless*;

d) non-professionals, the ones utilizing the Internet and suchlike technology intuitively, not possessing the skills necessary to manipulate cyber-reality — *luser, random*.

It is worth noting that the Knowledge phenomenon in this context acquires a rather peculiar meaning and its opposition to the Absence of Knowledge is of a specific character. The paradox of the situation lies beneath: as it has been stated by some contemporary researchers the Lack // Absence of Knowledge possesses much greater development potential than the Knowledge itself. Besides, the Absence of Knowledge purpose in the world is environmental protection (in a way) [6]. As we can assume now, "plain" users are more likely to contribute to cyberspace prosperity than some of the geeks (let alone hackers), this being due to their a priori inclination to vertical evolution (self-education, self-development) and thus, creative (rather than destructive) activity potential. The study results make it possible to interpret the notion of Knowledge and its terminological realization as a specific social stratification criterion within the cyber community.

Conclusions

Cyberanthroposphere functioning is actualized upon objective anthropic principles. However, recently a tendency to reverse conceptual dominants within the cyber-related lexical corpus from total anthropocentrism to technospherism could be noted. The tendency is actualized via gradual release of the so-called ontological denotatum

within the semiotic plane which, in its turn leads to the anthropic nucleus of linguocybersphere diffusion.

The "artificial" digital environment is acquiring more independence as far as the "parent" reality is concerned and establishes the basis for being considered a separate metalingual entity. Hence, one of the prior ways fundamental ontological categories are exposed within cyberspace being through the language (precisely by means of contributing to the modern English vocabulary), it may be assumed the natural language itself finds its realization in ontological manner. Thus, the problem provides significant basis for further discussion. The work-inprogress objectives in this respect could be presented as follows:

1. to introduce elements language instruction (ESP) as integral part of E-learning environment;
2. to research language impact on E-learning tools efficacy;
3. construct a Web 2.0 model of e-learning environment, featuring language dynamics as a corroborative parameter.

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