UDC 811.111-26

LEXICAL FEATURES OF INFORMATION TECHNOLOGY FIELD IN CONTEMPORARY ENGLISH

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Language of computer technology is one of the fastest growing layers of special vocabulary. Learning of IT terminology facilitates the identification of semantic features which form the basis for the nomination of new technical devices and phenomena. The relevance of this study is also dictated by the insufficient number of studies considering English IT terminology at the present stage of its development. The article attempts to analyze the lexical peculiarities of IT terminology in contemporary English.

Key words: vocabulary, lexicon, information technology, computer, term, terminology.

ЛЕКСИЧНІ ОСОБЛИВОСТІ СФЕРИ ІНФОРМАЦІЙНИХ ТЕХНОЛОГІЙ У СУЧАСНІЙ АНГЛІЙСЬКІЙ МОВІ

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Мова комп'ютерної техніки є одним з найбільш швидкопоповнюваних шарів спеціальної лексики. Навчання IT-термінології полегшує ідентифікацію семантичних ознак, які формують основу для виникнення нових технічних пристроїв і явищ. Актуальність цього дослідження також продиктована недостатньою кількістю досліджень, що розглядають англійську IT-термінологію на сучасному етапі її розвитку. У статті зроблена спроба проаналізувати лексичні особливості IT-термінології в сучасній англійській мові.

Ключові слова: словник, лексика, інформаційні технології, комп'ютер, термін, термінологія.

ЛЕКСИЧЕСКИЕ ОСОБЕННОСТИ СФЕРЫ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ В СОВРЕМЕННОМ АНГЛИЙСКОМ ЯЗЫКЕ

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Язык компьютерной техники является одним из самых быстронаполняющихся слоев специальной лексики. Обучение ИТ-терминологии облегчает идентификацию семантических признаков, которые формируют основу для возникновения новых технических устройств и явлений. Актуальность данного исследования также продиктована нехваткой исследований, рассматривающих английскую IT-терминологию на современном этапе ее развития. В статье сделана попытка проанализировать лексические особенности ИТ-терминологии в современном английском языке.

Ключевые слова: словарь, лексика, информационные технологии, компьютер, срок, терминология.

Formulation of the problem. In connection with the progress of modern science and technology and its attendant social changes causing a radical restructuring of the conceptual apparatus of many scientific disciplines and the emergence of new fields of knowledge, new concepts arise, which dramatically increases the need for the nomination. All this leads to the so-called "terminological explosion" – a significant increase in the number of new terms, as well as the emergence of new terminologies, accompanying the emergence of new fields of knowledge [1, p. 9]. The aim of linguists is to turn the "terminological explosion" bearing largely spontaneous nature, in a controlled process [2].

Copyright acquis connection with important scientific and practical tasks, analysis of recent research and publications. The "terminological explosion", that we are witnessing in recent decades, was mentioned by VM Leychik, SV Grinyov, BL Golovin, RY Kobrin. Computer terminology represents relatively new lexical layer, in recent years it has expanded exponentially, it is becoming more open to the general public. Today, every PC user has the specific vocabulary in computer terminology.

Still unsolved aspects of the problem, which the article is devoted. The terms of information technology are among the least studied issues of modern linguistics. In the existing scientific literature the problem of the origin of the terms of IT field has not received adequate coverage as a special study; there is no comprehensive description of native and borrowed English IT terms, linguistic and extralinguistic factors of their appearance in the language are not revealed. Meanwhile, the special vocabulary plays an important role in creating communicative-pragmatic characteristics of the text of information technologies field.

Semantic features of computer terminology and word formation processes in this field of knowledge are identified; not only the structural characteristics of the term, but also its internal content structure is considered.

The scientific significance of the research is in the determination the structural and semantic features of IT terminology. The analysis makes it possible to determine the formal structure of the IT term. This research allows expanding understanding of the functioning of the analyzed lexical units in modern English.

Presentation of basic material. A wides pread of lexicon in computer science can be explained by the fact that in modern society computers are used by much of the population and knowledge of at least, basic terminology in this area has become an everyday necessity. Thus, the circle of carriers of information technologies "language" is expanding. It begins to develop, according to the laws of language commonly understood, not professional: vernacular language must conform to generally accepted standards and specifications, resulting in determinologizationof a significant amount of scientific terms and definitions.

The term "information technology" itself is understood differently in different works of linguists and interpreted extremely contradictory and not precisely. In particular, computer terminology is a part of a special (computer) language. Jaleniauskienėand Čičelytė call this language "computer language", meaning by this definition "special language, formed in the subject field, technologically related to the production of personal computers and software to them" [4, p. 122]. The central concept around which this language formed, is the term "computer". However, the popular notion of "information and communication technologies" (ICT) is wider and includes other technologies (television, mobile communication, etc.). Accordingly, the terminology lexicon of computer language we will call "IT terminology".

Studies show that most simple and derivative terms of IT-technologies are formed by terminology rethinking of common-literary words. Methods for the nomination, at the use of which the form of lexical units does not change, but only a change in their values happens, are called semantic ones [3]. V.P.Danilenko notes that using semantic method meets the increasing need for new terms [3]. V.S.Vinogradov also highlights a semantic way to the nomination, when common word becomes the name of a scientific or technical concept by rethinking,metaphorization of one or more of its values [6].

The analysis of lexical filling in IT texts shows that the vocabulary of modern English-language magazines and journals with dominant theme "IT", consists of the following kinds of lexical units: 1) the words common-literary language within the meaning adopted in the common-literary language. This is primarily functional words again, ago, almost, already, also, however, just, near, only, quite, rather, sometimes, still, then, today, might, must, andother; 2) Common-literary language words which are used in the IT text usually in a narrow, special significance. These are such words as: state, case, treadmill, storage; 3) Phraseological expressions: to see the light, have appetite for, industry body; 4) The words of common-literary language, not typically found in scientific texts, but the content of which may be the subject of scientific consideration, such as: cloud storage, cloud supplier, cloud quality; 5) Special terminology: cloud computing, middleware, cybersecurity. This analysis once again confirms the predominance of the general vocabulary of scientific orientation in the texts devoted to information technology.

The most notable transformations are taking place in the lexical area of the language. In the computer vocabulary, basic word-formation ways are affixation and acronyms, compounding, conversion and contamination.

In the scientific texts and terminological dictionaries the terms are found, consisting of three or more words. It can be argued that for the term accuracy is more important than brevity. In this regard, verbiage of a term cannot be regarded as its disadvantage.

Stylistically computer terminological system can be represented by professionalism, jargon, slang and terms themselves.

Semantic features of computer term should be considered in terms of its motivation. The term as a lexical unit, as a word or phrase of a certain natural language, has or does not have a sign of language motivation in the same way as any lexical unit.

The most common type of compound terms in English terminological lexicon is a two-component combination of words (76.46%), followed by three-component English terms (19.4%). There are also four-component, and the six-five-component terms, but their number is less than the number of two-component and three-component terms. Verboseterminologicalcombinationsof words tendtoabbreviation.

A number of computer terms, which can be found in the IT magazines and journals, such as cracker, virus, piracy and others have estimated connotation, although the terms have to be neutral. For example, the lexical unit *hacker* with a value of "someone who illegally breaks into a computer system in order to steal information or stop the system from working properly" [LDCE] or piracy unit matters "the crime of illegally copying and selling books, tapes, videos, computer programs" [LDCE]. Estimated connotations in these units are incorporated in semes illegally, steal and crime – any illegal acts are condemned by society, thusthe seme "bad"is implicated. Accordingly, they can be attributed to the special vocabulary (sleng, professionalisms), which functions as terms, but has a characteristic stylistic "coloration": *garbage* – unnecessary information, *deadly embrace* – the deadlock in the work program. In the computer vocabulary, units can be identified that are associated with work practices, or concepts, and are very commonly used in English-language journals of IT sphere: *to level up* – raise, *to back up* – to carry out reserve copying, *to follow a link* – to pass the link, and many others.

In the 20th century, science and technology, being the leading element of human development,served the emergence of new international words such as radio, television, program, disk, video, CD, iconoscope, radiotelescope, radar. It should be said that English itself has become "giving"language and is called lingua franka language of 20th century. Borrowings occur as a result of influence of the major linguistic and extra-linguistic factors.

An analysis of the phenomenon of the word, a flexible relationship of its components (denotation, the concept and the form) make it possible to relate one item to multiple denotations, emphasizing that the important thing in the sense of the word is generalized nature of contained therein reflecting of the reality [4]. Being a result of the reflection of complex cognitive processes of thinking, a fundamental rethinking of the nature of the word is in the fact that the name of one denotation applies to the other, if their concepts are similar in certain aspects. It should be noted that the word continues to exist in its original form (prototype), together with one reinterpreted variant (non-prototype) or loses its original meaning. The process of the emergence, development and rethinking of the meaning of the word, traditionally considered from the viewpoint of diachrony and synchrony, is determined by linguistic laws both within the language system and extralinguistic factors continuously taking place in the surrounding reality, which contributes to the emergence in the society of new denotation – the object or concept.

Analysis of the most common lexical units of the field of modern information technology allows making conclusion that the emergence of a new denotation in the terminology layer most often occurs at the using of common-literary language words under the influence of extra-linguistic reasons. Shift, or offset of the value based on the transferring of the name occupies a central position among the linguistic causes of rethinking and changingof the word' meaning that is defined by a flexible connection between its parts, such as the concept and form.At the presence of different denotations,some degree of commonality in their perception and understandingis possible, which is reflected in the use of the old form for the new concept, in which the types of transfer depend on the type of bonds between denotation and its denomination.

Thus, the meaning may change both quantitatively and qualitatively under the influence of the causes of both linguistic and extra-linguistic nature, accumulating a variety of options that leads to ambiguity (polysemy) and extending of the functionality of the vocabulary (lexicon).

As the term both specific words (*processing*, *software*, *database*), and the nation-wide special meanings of words (*candidate*-perspective, *memory*-memory device, *beauty*-advantage) are used. When learning the terminology, meaning of the term should be disclosed by the logical definition, establishing the place of the concept designated by the term, in the system of concepts of the field of science or technology. Also, in the process of learning it is necessary to pay attention to the systematicity ofnewly created terms [5]. In many areas of expertise, including a computer, there are rules for the formation of terms for concepts or objects of particular class. For example: the addition of certain suffixes: *user*, *conversion*, *queryable* (available for queries); composite compound words: *background* – background (field), *keyboard*– keyboard (keys, key pad), *spreadsheet*–electronic table; adding prefixes: redirection – I/O redirection, *underflow* – loose of value, *overrun* – to go beyond; phrasal verbs: *pop up*-to be displayed on the screen, *call on* – demand, *carry out* – perform. Phrasal verbs, characteristic of spoken language, are widely used in the technical sublanguages. Based on the analysis of their word meaning in a sublanguage of information technology, we can conclude that there is a group of phrasal verbs that represents the resistant lexical layer (such as *setup*, *bring about*) and highly specialized terms (e.g.., *log on, print out*) [5]. Verbs representing stable lexical layer, refer to the special vocabulary and do not have the properties of the term to identify the concepts and objects in a given domain, but are used primarily only by a narrow circle of specialists. The special vocabulary includes various derivatives of the terms, words used in the description of connections and relationships between terminologically indicated concepts and objects, as well as a number of common words used in strictly certain combinations and thus specialized, e.g., *petal printer* – daisy wheel printer, *dummy statement*-empty operator (statement).

Since more than half of all new technologies appearin the Silicon Valley, the new terms are also born there. While working on the invention, new terms arise, and society is forced to use them. And only starting from its original form, the word can make a conversational form, appear in computer slang.

It should be noted that there is no impassable border between the terms and non-terms not. Between them there is constant contact, constant exchange occurs. In the period of the formation of any terminological system one can observe (as a characteristic phenomenon) the process ofterminologizationof common words. At this, there is a kind of transition of commonly understood meaning to terminological based on metaphorical and metonymic rethinking of the first. In this case we are not talking about the different meanings of the word, but about different words, such as *handshake* – handshaking, this term refers to the method of control of synchronous forwarding of data to a slow peripheral device such as a printer, in which each transfer operation requires a confirmation signal; *session* – session. It has two meanings. Both one and the other relate to the computer systems – a) an active connection between the user and the computer or between two computers; b) the sequence of operations in which connection

is established between the stations on the network, the data exchange is carried out, and the connection is terminated.

There are highly specialized terms, which express the specific terms, representing measuring values: Trcd – Time RAS to CAS delay – Time remote access service to column address strobe – time interval that characterizes the delay in the signal submission bars. There is also a category of terms, which represents the name of the new inventions and devices, as well as processes and organization: blu-ray disc – blue-purple disk; carputer – computer, which is built into the car. Of special interest are target terms that enrich the composition of the new vocabulary, are easy to remember and, therefore, are commonly used. This group includes the words that are created similar to the existing, if the to add to the word acronym e – (electronic), it is possible to form a plurality of new terms – *e-commerce* – electronic commerce, *e-banking* – electronic banking. This category of terms is represented not only in the IT journals and other specialized publications, but is used widely in business, law, etc.

Summary and prospects of research results. Language of information technology, as well as information technology itself, is not static, it is constantly evolving, and enriched with new terms and terminological expressions, and the fact that some of the terms are not included in specialized dictionaries, allows talking about the fact that this layer of lexicon is little-studied and its research is promising.

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