THE STRUCTURAL-SEMANTIC FEATURES OF COMPUTER TERMS IN ENGLISH LINGUISTICS

Rakhimjonova Dilshoda
Teacher of Foreign languages department, Fergana branch of Tashkent University of information technologies

Abstract: The article is devoted to expose, analyse and study of the structural and semantic characteristics of computer terms in English. The peculiarities of the word-formation process and the functioning of English computer terms are analysed.

Keywords: terms; morphological word-formation; affixation; compounding; conversion; reversion; blending; abbreviation.

By the end of the twentieth century, the rapid progress in the spheres of science and technology led to the phenomenon called 'information revolution'. Because of the dynamic development of science and technology, intense increases in the number of new terms were observed for new branches of knowledge. The branch of information and communication technologies is one of the most advanced in terms of innovations. Most of the inventions in this field appear in the US, so naturally they receive their nomination in English. However, the global nature of computerization has led to the internationalization of computer vocabulary. Many computers are not only used in professional life, but also in everyday life. Consequently, many computer terms have transferred from the sphere of specialized language to that of ordinary language. As a result, computer slang is formed. The acquisition of computer vocabulary occurs simultaneously alongside the use of information and communication innovations.

The relevance of the present study derives from the fact that computer terminology is not static. Instead, it is constantly in dynamic development, evolving and enriching itself with new terms. British English is constantly being enriched by computer-related Americanisms, but some computer terms have not yet been reflected in specialized dictionaries. Despite numerous academic works devoted to computer vocabulary and its translation (V. Akulenko, F. Baranov, I. Bolshakov, D. Crystal, N. Gritsak, V. Karaban, O. Medvid, Y. Pylypovych, R. Pronin, A. Savina, R. Syndega, V. Tabakanova, A. Fedorov, M. Chernyshov and others), structural differentiation of terms (D. Barannik, R. Dubuc, K. Gaivenis, T. Kiyak, Z. Kudelko, S. Pavel, E. Yenikieva, M. Kochergan, etc.), word-formation methods and term systems (N. Bezgholova, L. Verba, N. Vinogradova, M. Volodina, O. Galichkina, V. Danilenko, A. Nikolaeva and others), there has been no comprehensive study of computer terms in English based on their structural and semantic features. The purpose of this article is

to expose, summarize and analyse the structural and semantic features of computer terms in English.

The emergence and evolution of specialized terms is directly related to the intensity of how a particular field of science and technology develops. It is clear that a highly developed field has a large number of special terms. According to Kocherhan, changes in a terminological system occur under the influence of linguistic and extralinguistic factors. Linguistic factors include changes in the vocabulary of the language related to the tendency to unify, the systematics of the linguistic means, as well as variations of nominations with different motivations and tasks of emotional and stylistic expressiveness. Extralinguistic factors include changes in the world that are related to rapid development in various fields of science and technology and innovations in the cultural and social spheres and everyday life of mankind. In particular, Kizil notes that extralinguistic factors that influence the development of the computer term system include informatization, the computerization of English-speaking societies and the entire world community as a whole, the creation and dissemination of the internet sphere and cyberspace, as well as the processes of globalization, the expansion of English, the priority of the linguistic coding of concepts and the realities of computer-mediated realias by its means. Thus, language reflects the changes taking place in the surrounding world. Terms can only exist as a component of a term system.

This term system is one of the youngest term systems, since its formation and development started at the end of the twentieth century, a period of rapid innovation in the field of information technology.

Computer terms are words or phrases that have a specific, well-defined meaning in the field of information technology. An important feature of these terms is that they accurately express the concepts, processes and names of things that are distinctive to information technology. According to Jaleniauskien˙e and Čičelyt˙e "computer language" is a special language, formed in the subject field and technologically related to the production of personal computers and their software. Computer terms are also defined as lexical units characterized by the structural-semantic interdependence of their components, within which both information substantial and cognitive-figurative experiences in the field of informatics, computer technology and internet communication are actualized. There are two main approaches to exploring terms: normative and descriptive. The normative approach involves the study of terms as words (or phrases) of a specific sphere of use, which is the name of a specific concept and requiring definition. Thus, a term in its structural and semantic characteristics is different from common lexis. The descriptive approach involves the study of terms as any lexical unit with a special function. The computer term system consists of terms that can be divided into the following groups:

1. Terms that are correlated with common words. Such terms are formed by the fact that commonly used words acquire meanings specific to IT. In this case, the term is a common word (for example, card, chat, break, drive, default, button, edit, copy, disable, page, account, alias, application, cookies, assembler, backdoor, cable, click, bus, bug).

2. General terms that function not only within the computer term system but also within other fields of science and technology (for example, the term driver, which in a computer context means the program that manages the input and output of information but in other fields of science and technology has dozens of meanings).

3. Special terms which are specific to computer only. Examples include terms such as cybersecurity, cybernetics, hardware, software, cyberprofilers, technomedia, e-cabinet, e-money, webfare, cybercrook, cybernerd, e-surfer, shareware, subnet, e-wallet, hyperlink, hypertext, cyberspace, microblog, cybercommuter. In such cases, the meaning of the word and the meaning of the term coincide, because the word serves only to express one special concept, that is, the term and the semantics of the word are adequate to the meaning of the term.

4. Terms that have two or more meanings in the computer industry. For example, the term ‘server’ is the name of a computer as a device to access the internet, as well as an application that provides access to the internet; the term ‘display’ as a verb means to display, to show, and as a noun it means a screen or monitor; ‘format’ means a standard menu and the command of formating; ‘file’ signifies a document, a stand-alone unit of information, and a standard menu of applications responsible for file operations.

According to Baliuta and IEnikieieva, all terms are divided by their morphological structure into:

1. Simple (for example, file — a piece of information with a name; disk — a circular plate with a magnetic layer for storing information; program — a computer program; card — game, registration or credit (depending on context); button — a button on a system block; cable — a connecting cable; chat — communication between computer users through the internet or other computer networks);

2. Complex (for example, hotlist — a list of addresses that need to be saved for the future; keyword — a main word; bottleneck — a critical element that limits system performance; desktop; workstation; firewall; chipset; database; bookmark; clipboard);

3. Terms, combinations of words (for example, burst speed — the highest speed at which a device can operate; fire button — the button to start a program; address map — a reflection of logical and physical addresses; code review inspection — a systematic and periodic analysis of code to find errors not found in the early stages of software development; garbage collection — an operation to delete unnecessary data; data type — data type in programming; full screen — full screen mode; general

protection fault — a general security error in all Windows programs; link editor — a system program that builds from object modules, project libraries, and libraries of translator absolute or portable boot module.

Maryna Bogachyk & Dmytro Bihunov Dubuc also suggests dividing all terms into three groups: simple terms (consisting of one word formed of a stem, with or without affixes), complex terms (consisting of two or more words with a grammatical relationship) and terminological phrases (consisting of a group of words). According to Gaivenis, terms can be grouped by their subject matter, form, function, etc., or by terminological sources — native words (when already existing words become terms), neologisms (when new terms are created) and loanwords (when terms are borrowed from other languages), or by the category they belong to. Dubuc suggests four main methods used to create new terms: semantic change, in which an established word is given a new meaning; morphological change, in which a term is formed by shortening an existing word or by joining existing words and formative elements; conversion, in which a term is coined by changing the grammatical class of an existing word; and by borrowing from other languages. In computer terminology, however, there is no borrowing because the early development of computer science took place almost exclusively in English-speaking countries. In the stage of the semantic analysis, the following groups were generalized, based on common semantic features:

1. Lexical units that denote types of computers and computer components (port, system unit, hardware, multi-user, disk controller, technomedia, technotyre, technoklutz, subnotebook, minicomputer, LCD — Liquid Crystal Display, RAM — Random Access Memory, ACPI — Advanced Configuration and Power Interface, bus, button, cable, card, chip, device, memory, mouse, screen, server, slot, socket, tower, sound blaster, etc.);

2. Lexical units that denote computer language types, symbols, and signs (shareware, interlace, subclass, superclass, subroutine, kerning, spacing, folder, outliner, half-word, four-digit, two-spot, BASIC — Beginner's All-purpose Symbolic Instruction Code, CGI — Common Gateway Interface, HTML — Extensible Hypertext Markup Language, zip-code, etc.);

3. Lexical units that denote computer software (antivirus, browser, subdirectory, submenu, interface, webware, wrapper, codec, driver, editor, explorer, spyware, trialware, BIOS — Basic Input Output System, DOS — Disk Operating System, script, web service, etc.);

4. Lexical units that denote computer work related to actions and commands (programming, delete, reformat, reboot, redirection, verrun, disconnect, authorization, overlocking, defragmentation, cyberhacking, point-and-click, drag-and-drop, spam, click, scan, tweak, type, garbage collection, etc.);

5. Lexical units that denote users and programmers (computerman, user, programmer, application developer, program analyst, cybercrook, cyberthief, cyberboteur, cyberchondriac, cyberaddict, cyberjunkie, cybercitizen, cybernerd, cybersurfer, technotycoon, hacker, caller, gamer, moderator, lamer, screenager, hacktivist, hackman, netizen, etc.);

6. Lexical units that are connected to the Internet (internet, dot com, hyperlink, unfriend, cybercrime, e-cash, e-money, e-scam, e-government, e-shopping, e-retail, technofear, subdomain, e-wallet, e-commerce, e-banking, hyperlink, cyberspace, cyberlife, hyperspace, microblog, IRC — Internet Relay Chat, SMTP — Simple Mail Transfer Protocol, etc. There are many slang words in English that refer to computer users and programmers. For example, geek, luser, bagbiter (incompetent users of information and communication technology); jock, hacker (people who are competent users); cyberbody (an internet interlocutor); admin (the administrator, the person or department involved in the organization); troll (a user who posts provocative posts on forums and more).

References

1. Aitchison, J. (2001). Language change: Progress or decay? Cambridge University Press.

2. Akhmanova, O. S. (2007). Slovar" lingvisticheskikh terminov. KomKniga. Andrusiak, I. V. (2003).

3. Barinov, S. M., Borkovskiĭ, A. B., & Vladimirov, V. A. (Eds.). (1991).

4. Longman dictionary of contemporary English: The living dictionary. Pearson Education Limited. Crystal, D. (2001).

5. Language and the Internet. Cambridge University Press. https://doi.org/10.1017/ CBO9781139164771

6. Dictionary of IT (Information Technology). (n.d.). Connet. http://www.consp.com/it-informationtechnology-terminology-dictionary Dubuc, R. (1997).

7. Kizil", M. A. (2015). Semantychni aspekty mihratsiï odynyts" metaterminosystemy sfery komp"iuternykh tekhnolohiĭ anhliĭs"koï movy. Naukovyĭ visnyk Mizhnarodnoho humanitarnoho universytetu. Seriia: Filolohiia, 15 (2), 54–56. Klymenko, N. F. (1998).

8. Terms in context. John Benjamin’s Publishing Company. https://doi.org/10.1075/ scl.1 Proĭdakov, E. M., & Teplyts"kyĭ, L. A. (2006).