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LINGUISTIC EVOLUTION IN THE DIGITAL AGE: ENGLISH CYBER NEOLOGISMS WORD-FORMATION PROCESSES

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The rapid advancement of computer technology and the Internet has catalyzed significant linguistic transformations, especially in vocabulary development. This study investigates the complex processes of neologism formation within the digital communication landscape, examining how technological innovation fosters linguistic creativity. The research tasks are to analyse word-formation models for Internet neologisms, examine the prevalence of different word-creation techniques, investigate the semantic expansion of existing terms, and explore the impact of technological development on the evolution of the English language. The research analyses a comprehensive corpus of Internet-related neologisms, revealing various word-formation models. Findings indicate that 64% of new terms arise through non-standard methods, including blending, abbreviation, and acronymisation. Semantic expansion accounts for 18% of the analysed neologisms, demonstrating how existing words acquire new meanings in technological contexts. The term “spam” illustrates this phenomenon, shifting from its original meaning of ‘canned meat’ to describe ‘unwanted digital communications.’ It is proved that affixation is a particularly productive word formation technique, with prefixes like *cyber-*, *e-*, *net-*, and *web-* generating many new terms. The prefix *cyber-* proves highly generative, reflecting the Internet’s transformative effect on English. Word compounds represent the largest category of neologisms, combining existing words from the vocabulary stock to create new terms. The study shows that Internet neologisms primarily stem from user communication needs, often focused on reducing typing time and capturing emerging technological concepts. The linguistic landscape continues evolving rapidly, with new terms to describe innovative digital experiences and technologies.

МОВНА ЕВОЛЮЦІЯ В ЦИФРОВУ ЕПОХУ: СЛОВОТВІРНІ ПРОЦЕСИ ТВОРЕННЯ АНГЛІЙСЬКИХ КІБЕРНЕОЛОГІЗМІВ

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Стрімкий розвиток комп'ютерних технологій та інтернету каталізував значні лінгвістичні еволюційні трансформації, зокрема й у сфері розвитку лексики. Подану наукову розвідку присвячено складним процесам утворення кібернеологізмів, зокрема, йдеться про те, як технологічні інновації стимулюють лінгвістичну креативність у царині англійської мови. Завдання дослідження – проаналізувати словотвірні моделі інтернет-неологізмів, дослідити поширеність різних способів словотвору, дослідити семантичне розширення існуючих термінів, а також вивчити вплив технологічного розвитку на еволюцію англійської мови. У статті проаналізовано великий корпус англійських неологізмів, пов'язаних з інтернетом, та виявлено різноманітні моделі та способи словотворення. Результати показують, що 64% нових термінів з'являються за допомогою нестандартних способів словотворення, включаючи словозлиття, аббревіацію та акронімізацію. Семантичне розширення становить 18% досліджуваних англійських кібернеологізмів. Воно демонструє, як вже наявні у словниковому складі слова набувають нових значень у новому технологічному контексті. У роботі доведено, що процес афіксації виявився особливо продуктивним способом словотворення, а префікси, такі як *cyber-*, *e-*, *net-* та *web*, створюють велику кількість нових термінів. Префікс *cyber-* є особливо продуктивним, що відображає трансформаційний вплив інтернету на англійську мову. Складні слова становлять найчисленнішу категорію неологізмів, що поєднують вже існуючі слова для творення нових термінів. Дослідження показує, що англійські інтернет-неологізми насамперед виникають через комунікативні потреби користувачів, часто спрямовані на скорочення часу набору тексту чи фіксацію нових технологічних концепцій.

Introduction. The computer industry's and information technology's rapid development over the past four years has given rise to many neologisms. Most were exclusively professional words, but they became extremely common among computer users. Professional terms have been simplified and shortened into so-called 'computer slang.' Initially, slang was a way of communicating with 'dedicated' people (e.g., programmers). However, due to the growing number of computer users, slang became standard.

The research **aims** to investigate the word-formation features and linguistic characteristics of neologisms in the computer and Internet domains.

The subject of the research is the linguistic processes of creating new words and terms in the context of the Internet and computer technology.

The object of the research is Internet neologisms, their formation methods, and semantic transformations in modern English.

The research **tasks** are to analyse word-formation models for Internet neologisms, examine the prevalence of different word-creation techniques, investigate the semantic expansion of existing terms, and explore the impact of technological development on the evolution of the English language.

The Internet can be viewed as a unique communication medium due to certain specific conditions: voluntary contact and interaction among diverse cultural backgrounds, which can create cultural barriers. It helps to establish a completely new, global type of community, providing a distinct kind of text based on cultural and spiritual affinity. The Internet is a catalyst for change in many areas of human activity. It has impacted how we communicate, shop, and pay bills, to name a few. It has also transformed from a Cold War-restricted communication system for academics into a phenomenon that has surpassed radio and television in popularity. This evolution has created a demand for new technologies that make the Internet faster, more reliable, and easier for the average user. Consequently, this new technology leads to the development of new terminology for it technology.

Results. The analysis of the word-formation features of the considered neologisms has shown that among the neologisms of this sphere, there are lexical units formed in different ways:

Word formation methods without specific models account for 137 cases out of 200 simple neologisms (64%). These ways are represented by blending (e.g., *carjacking*, *macintrash*), abbreviations (*zine* [abbreviation for magazine], *fro-yo* [abbreviation for frozen yoghurt]), and acronyms (*BTW*, conj. [= by the way], *IMHO* [= in my humble opinion]).

I hope you enjoyed the conference in Melbourne. BTW Any suggestions for a good hotel there?

Speaking IMHO I think everyone should have a job of some sort.

'Red hooded sweatshirt', a zine that has comics about the author's daily life and thoughts.

It's not called fro-yo, it's called frogurt.

Semantic expansion is observed in 63 cases (18%). The analysis results show that semantic extension is often used to name new concepts emerging in the field of information technology and the Internet (e.g., *spam*, (n.) multiple posts of the same message to the same or different Usenet newsgroups or an e-mail account). In its first meaning, the noun *spam* means 'canned meat, extremely cheap'. However, in the contemporary world, it acquires new meanings and expands its meaning, which is the principle of semantic expansion.

Borrowings are represented by only 32 cases (3%) (e.g., *loc*, n. slang. *gangster*, as in a member of a street gang. [Derived from the Spanish word '*loco*', meaning 'crazy']).

Productive ways of word formation account for 11 cases (15%). They are represented by conversion (e.g., *funny*, (n.) *A joke; a humorous comment or remark, sometimes unintentionally humorous*) and *prefixation*, e.g., *jordanesque*, (adj.) reminiscent of Michael Jordan. [coined by NBC Sports commentator Marv Albert. The *-esque* ending means 'like,' as found in words like *Romanesque* and *statuesque*).

Internet neologisms consist of terms developed and used by Internet users. Many of these terms originated to reduce typing time and keystrokes.

Internet neologisms come from many different sources – typical environments that give meaning to communication. Some terms, such as FUBAR, have roots as far back as World War II. Other terms, such as TTY and IRC, come from more recent forms of communication.

Affixation is the most productive way to enrich vocabulary on the Internet. As can be seen from the data, many new affixes have appeared in English during this particular period of language development. Such affixes as *cyber-*, *hyper-*, *i-*, *dot-*, *giga-*, *net-*, *info-*, *web-*, and *e-* are commonly found in neologisms referring to the Internet. Here are some examples:

Hyperlink → *hyper* + *link*

The fastest way to create a basic hyperlink in an Office document is to press ENTER or SPACEBAR after you type the address of an existing webpage, such as http://www.contoso.com. Office automatically converts the address into a link.

Hypertext → *hyper* + *text*

*Software programs that include dictionaries and encyclopedias have long used **hypertext** in their definitions so that readers can quickly find out more about specific words or topics.*

E-cash → *e* + *cash*

E-life → *e* + *life*

*ABA Mobile app brings you **E-Cash** service. It's a simple and secure way to send funds to your friends, family, or even yourself using your smartphone and withdraw it 24/7 at any ABA ATM.*

Idollars → *I* + *dollars*

*No to **iDollars**: Apple chief not interested in setting up a digital currency* *Dot bomb* → *dot* + *bomb*, *Dot snot* → *dot* + *snot*

*'Over the past 18 months, we have witnessed the implosion of **dot-bombs** as well as the short-circuiting major tech companies.'*

Gigastore → *giga* + *store*

GIGASTORE Handels GmbH is an information technology and services company based out of Ewige Weide 6, Ahrensburg, Schleswig-Holstein, Germany.

Nethead → *net* + *head*

***Nethead** – is a supporter of the Internet and its flexibility and technical underpinnings, contrasted with **Bellhead** (a supporter of traditional centralized telecommunications networks).*

Netmyth → net + myth

NetMyth now offers you affordable hosting solutions and quality web design, whether you're just starting out or looking for a new way to expand your internet presence.

Infoworld → info + world

Webzine → web + zine

UPF Webzine – is one of the most popular internet sources of information. Website → web + site

With our detailed reviews of the best **website** builders, ranked by features, pricing and ease of use, we've given you the tools to start building a powerful website in minutes.

Digital-to-analog → digital + to + analog

Digital-to-analog conversion can degrade a signal, so a DAC should be specified that has insignificant errors in terms of the application.

In particular, the e-prefix has given rise to a seemingly endless number of new words, such as e-mail, e-commerce, e-solution, e-vite, e-newsletter, e-book, e-publishing, and e-ticket.

The latest version of **E-Solution** builds on the popularity of earlier releases – system design used to be a complex business, but E-Solution simplifies the process, enabling the engineer to select the most cost-effective and energy-efficient mix of indoor and outdoor units, pipework and controls.

Cancellation of **e-tickets** by the customer/Agent through the Internet is permitted only before chart preparation of the train.

You're probably here because you're taking your first steps into the world of **e-newsletters** and email marketing.

Two of the biggest names in **E-commerce** website builders are Wix and Shopify. Each has its advantages. Find out which is right for your store [Liberty Travel, 2017].

The prefix '**cyber-**' appears with extraordinary frequency on the Internet, each time in new word combinations. The Oxford New English Dictionary adds the following definition: 'The first element of a wide variety of terms relating to computer-mediated electronic communications, particularly those which came to general prominence in the eighties and nineties, such as ELECTRONIC MAIL and the INTERNET' [Zawada, 2005].

This definition is accurate. The Oxford New World's Dictionary lists 25 neologisms in this article, and the edition used as a reference for this document is seven years old. Here are some of them:

Cybercitizen → cyber- + citizen

The term «**cybercitizen**» denotes a «**citizen of the Internet**» or a member of the «**cybercommunity**.»

Cyberclinics → cyber- + clinics

Born out of a common frustration by clients surrounding the lack of access to good quality mental healthcare, **Cyberclinic** has created a purpose-built

analytic engine to take the guessing out of finding the right help.

Cybercommerce → cyber- + commerce

At our site you will find all **Cybercommerce** crossword clue answers and solutions.

Cybercrash → cyber- + crash

Check out **Cybercrash** (D.N.S Remix) by ExploSpirit on Amazon Music. Stream ad-free or purchase CD's and MP3s now on Amazon.com.

Cyberjournalism → cyber- + journalism

Cyberjournalism or Digital journalism also known as online journalism is a contemporary form of journalism where editorial content is distributed via the Internet as opposed to publishing via print or broadcast.

Cyberkids → cyber- + kids

Children cannot be effective in tomorrow's world if they are trained in yesterday's skills. **Cyberkids** draws together research in the sociology of childhood and social studies of technology to explore children's experiences in the Information Age.

Cybermall → cyber- + mall

Our office is located on the 8th floor of **Cybermall** Eastwood City, Libis, Quezon City.

Look for unit 8-Bquezon City, Quezon City

Cyberpatrol → cyber- + patrol

CyberPATROL is now part of. **CyberPatrol** has combined forces with Content Watch and Net Nanny, the #1-rated parental control software on the market.

Cyberpunk → cyber- + punk

Enter the world of Cyberpunk 2077 — a storydriven, open world RPG of the dark future from CD PROJEKT RED, creators of The Witcher series of games. [Liberty Travel, 2017].

More recent additions include *cyber-patrol* (software to prevent minors from accessing adult-oriented sites), *cyberkids* (the meaning is self-explanatory, the name of an online community for children) and *cyberterrorism* (also self-explanatory), to name a few, and they can appear with the prefix together or separately, in which case a dash appears to separate the prefix from the base. Furthermore, if you type '**cyber**' (with *cyber* followed by any word it is combined with) into any search engine of your choice, more links will appear than you can read, let alone scrutinise; for example, **Altavista.com** finds no less than 4,067,436 pages referencing '*cyber*', most of them certainly containing similar terms, but showing the prevalence of this prefix on the Internet. It is clear that this prefix is one of the most prolific neologisms ever and, with the continued growth of the Internet, is likely to become the most prolific prefix in the history of linguistics.

Cyber has come a long way. It is a complete form in itself, with its current meaning coming from a science fiction novel called "The Necromancer," which was first published in 1984 and which gained cult status

and spawned its own category of science fiction called *cyberpunk*; before that, there was, and still is, *cybernetics* (first appearance 1948), a science that borders on electronics, biology, and medicine, aims at controlled interaction between machines and living organisms and which itself derives from the ancient Greek *kubernetes*, meaning ‘controlled’ [Kadosh, 2013].

We assume that ‘*cyber-*’ is a neologism that will stand the test of time and will not disappear from active use for long. However, this may not be the case for all the formations in which it is a parent.

Word compounds form the most numerous and productive group of neologisms under analysis. They are defined by adding two or more words together to create a new one, with almost no connecting elements. Here are some examples:

Bookmark → *book* + *mark*

Bookmark’s eLearning courses give you intuitive, useful tools that help you advance your business and career. Each course is written by experts in their field and allow you to learn at your own pace. Learn something new today.

Newsgroup → *news* + *group*

A Usenet newsgroup is a repository usually within the Usenet system, for messages posted from many users in different locations using the Internet.

Clear-to-send → *clear* + *to* + *send*

Clear to Send (CTS) is a control frame employed in the medium access control (MAC) layer protocol IEEE 802.11 RTS/CTS

Egosearch → *ego* + *search*

Twitter ego-searching for hubot. Contribute to hubot-twitter-egosearch development by creating an account on GitHub.

Flashcrowd → *flash* + *crowd*

There are several areas that can benefit from cloud computing and one in special is gaining much attention: the flash-crowd handling.

Download → *down* + *load*

Internet Download Manager increases download speed with built-in download logic accelerator, resume and schedule downloads.

Digital-to-analog → *digital* + *to* + *analog*

In electronics, a digital-to-analog converter (DAC, D/A, D2A, or D-to-A) is a system that converts a digital signal into an analog signal. An analog-to-digital converter (ADC) performs the reverse function. [Liberty Travel, 2017].

We can also trace some examples when two word-forming processes are joined together, like affixation and compounding.

Egosurfer → *ego* + *surf* + *er*

Egosurfing can be used to find data spills, released information that is undesirable to have in the public eye.

Junk e-mail → *junk* + *e* + *mail*

It’s a good idea to regularly review messages in the Junk Email folder to check for legitimate messages that were incorrectly classified as junk.

Network topology → *net* + *work* + *topology*.

There are two types of network topologies: physical and logical. Physical topology emphasizes the physical layout of the connected devices and nodes, while logical topology focuses on the pattern of data transfer between network nodes. [Liberty Travel, 2017].

Conclusions. The comprehensive investigation of English Internet neologisms reveals significant linguistic transformations in the English language driven by technological advancement. The research provides nuanced insights into the dynamic processes of lexical innovation in the digital communication landscape.

The study empirically demonstrated that non-standard methodologies predominantly characterise word formation in Internet terminology. Specifically, 64% of neologisms emerged through blending, abbreviations, and acronyms, indicating a pragmatic approach to language development that prioritises communication efficiency.

Semantic expansion played a critical role in linguistic evolution, with 18% of studied terms undergoing meaningful transformations. This phenomenon illustrates language’s inherent adaptability, where existing lexical units acquire novel technological connotations, exemplified by the semantic shift of terms like ‘spam’.

Affixation emerged as the most productive word formation mechanism, with prefixes such as *cyber-*, *e-*, *net-*, and *web-* generating a proliferation of innovative terminology. The prefix ‘*cyber*’ mainly demonstrates exceptional generative potential, reflecting the internet’s profound linguistic impact.

Word compounds were the most numerically significant neologism category. They ingeniously combine existing linguistic elements to articulate emerging technological concepts, underscoring language’s capacity for creative recombination in response to technological innovation.

The research substantiates that English Internet neologisms are fundamentally user-driven, originating from communication requirements and technological discourse. The linguistic landscape reflects a dynamic, responsive system continuously adapting to digital transformation. These findings illuminate the intricate relationship between technological development and linguistic creativity, demonstrating how communication technologies fundamentally reshape linguistic expression within English. Furthermore, the study provides empirical evidence of language’s remarkable capacity for innovation, adaptation, and meaning reconstruction in the digital era.

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