

LEXICAL INNOVATIONS IN THE FIELD OF COMPUTER ERGONOMICS: AN ANALYSIS OF EMERGING TERMINOLOGY

Vinnitsia National Technical University

Анотація

У цій статті представлено поглиблений аналіз нового термінологічного ландшафту в галузі комп'ютерної ергономіки, з акцентом на перетині лінгвістичних інновацій та ергономічного дизайну. Розглядаючи низку неологізмів, таких як "ergo-ware", "standesk" і "keynomics", дослідження підкреслює, як ці терміни відображають нові виклики та рішення у взаємодії людини та комп'ютера. Це дослідження не лише робить внесок у лінгвістичний дискурс, але й пропонує розуміння ергономічних міркувань, які є життєво важливими для формування зручного для користувача та безпечного для здоров'я комп'ютерного середовища.

Ключові слова: комп'ютерна ергономіка, лінгвістичні інновації, взаємодія людина-комп'ютер, ергономічний дизайн, неологізми.

Abstract.

This article presents an in-depth analysis of the emergent terminological landscape in the field of computer ergonomics, emphasizing the intersection of linguistic innovation and ergonomic design. By examining a range of neologisms, such as 'ergo-ware', 'standesk', and 'keynomics', the study highlights how these terms encapsulate evolving challenges and solutions in human-computer interactions. This exploration not only contributes to the linguistic discourse but also offers insights into the ergonomic considerations vital in shaping user-friendly and health-conscious computing environments.

Key words: computer ergonomics, linguistic innovation, human-computer interaction, ergonomic design, neologisms.

Introduction

In the ever-evolving landscape of computer technology, the domain of computer ergonomics has emerged as a crucial field of study and innovation. The term '*ergonomics*' itself, originally coined to describe the science of work and the relationship between humans and their occupational environments, has undergone a significant metamorphosis. This evolution is particularly evident in the context of our interactions with computer systems – both hardware and software. The advent of the digital age has brought forth not only remarkable technological advancements but also new challenges pertaining to the comfort, efficiency, and health implications of computer use. This has necessitated a parallel development in the language we use to describe these phenomena. [1]

The focus of this work is to explore and elucidate the emerging lexicon that has developed in response to these novel challenges and solutions. Neologisms – new words or expressions that enter a language – are often born out of necessity. They serve as linguistic markers of technological and cultural shifts. [2] In the realm of computer ergonomics, these neologisms reflect a myriad of innovations and concerns, ranging from physical hardware designs to software interfaces, user experience (UX) considerations, and health-related issues stemming from computer usage.

This work will delve into various aspects of these linguistic innovations. It will explore terms that have recently entered the lexicon, such as '*ergo-ware*,' '*standesk*,' and '*keynomics*,' among others. Each of these terms encapsulates a unique aspect of computer ergonomics, highlighting the evolving nature of our interaction with technology. By examining these neologisms, we aim to provide insights into not only the linguistic trends but also the broader ergonomic challenges and solutions that are shaping our digital world. [3] The article will thus serve as both a linguistic and ergonomic exploration, offering a comprehensive understanding of how language and technology co-evolve in response to human needs and innovations.

Linguistic innovations in English, which occur continually as the language evolves, [4] can be broadly categorized into several types.

1. **New Words and Neologisms.** English frequently adopts and creates new words. These can emerge from various sources like technology (e.g., "*selfie*," "*hashtag*"), cultural changes (e.g., "*ghosting*" in dating), or blending existing words (e.g., "*brunch*" from breakfast and lunch). [5]
2. **Borrowing from Other Languages.** English has a long history of borrowing words from other languages. This includes words like "*ballet*" (French), "*piano*" (Italian), "*yoga*" (Sanskrit), and "*sushi*" (Japanese). Such borrowings often reflect cultural or technological influences from those languages.
3. **Changes in Grammar and Usage.** Over time, English grammar and usage evolve. For example, the singular "*they*" has gained acceptance as a gender-neutral pronoun. Other shifts include changes in verb forms, the use of the passive voice, or variations in sentence structure.
4. **Internet and Texting Language.** The digital age has spawned its own set of linguistic innovations, including abbreviations (LOL, BRB), emojis, and new syntactic structures influenced by the limitations and norms of digital communication. [6]
5. **Slang and Vernacular Changes.** Slang terms often reflect societal changes or subcultures and can sometimes become mainstream. For example, words like "*cool*" or "*ghost*" (in the sense of abruptly cutting off communication) started as slang but are now widely understood.
6. **Pronunciation Shifts.** Over time, the pronunciation of words can change. This can be regional (e.g., the varying accents across English-speaking countries) or over time (e.g., the Great Vowel Shift in historical English).
7. **Influence of Social Media and Pop Culture.** Social media and popular culture have a significant impact on language. They can rapidly popularize terms and phrases, which can then enter everyday language (e.g., "*binge-watch*" or "*photobomb*").
8. **Euphemisms and Politically Correct Language.** Societal changes often lead to changes in how certain concepts are discussed. Euphemisms or more politically correct terms become prevalent in order to address subjects sensitively or inclusively (e.g., "*differently-abled*" instead of "*disabled*").

These innovations are a testament to the dynamic and adaptable nature of the English language, reflecting changes in technology, culture, and societal norms. [7]

Neologisms in the field of computer ergonomics reflect the ongoing evolution of technology and our interaction with it. These new terms often arise to describe novel concepts, products, or phenomena related to the way we use computers in a manner that affects our physical comfort and health. Some of these neologisms include

- ✓ **Ergo-ware.** A term that could be used to describe software designed with ergonomic principles in mind. This might include features like eye-friendly colour schemes, user-friendly interface designs that reduce the need for excessive mouse movements, or software that reminds users to take breaks.
- ✓ **Standesk.** A combination of "*standing*" and "*desk*," this term could refer to desks designed for use while standing up, which are gaining popularity as a healthier alternative to sitting all day.
- ✓ **Keynomics.** Derived from "*keyboard*" and "*ergonomics*," this term could refer to the study and design of keyboards in a way that minimizes strain on the hands and wrists, potentially incorporating aspects like key placement, tactile feedback, and overall design.
- ✓ **Mousercise.** A playful blend of "*mouse*" (as in computer mouse) and "*exercise*," this could refer to exercises designed to prevent or alleviate strain injuries caused by prolonged use of a computer mouse.
- ✓ **Ergoscreening.** This term could refer to the process of evaluating and adjusting computer monitors for optimal ergonomic benefit. It would encompass aspects like screen height, distance, tilt, and ambient light settings to reduce eye strain and neck pain.
- ✓ **Gesturenomics.** A blend of "*gesture*" and "*ergonomics*," potentially referring to the study and application of gesture-based controls in a way that reduces physical strain. This might become increasingly relevant with the rise of touchscreens and virtual reality interfaces.

- ✓ **Techneck Prevention.** "*Techneck*" refers to neck strain resulting from the frequent downward gaze at screens, especially mobile devices. Neologisms in this area could focus on methods, tools, or practices to prevent or mitigate this issue.
- ✓ **Biometric peripherals.** These would be devices designed to interact with computers in a way that is ergonomically optimal and also personalized to the user's specific biological metrics, like grip size or finger length.
- ✓ **Chaironomics.** A term that could be coined to refer to the study and design of chairs and seating arrangements that support optimal posture and comfort while using computers.

These neologisms illustrate how language adapts to the evolving landscape of technology and ergonomics, often blending existing words to create new meanings and concepts that address emerging trends and concerns in computer usage.

In conclusion, the exploration of neologisms within the realm of computer ergonomics reveals a dynamic interplay between language, technology, and human well-being. The emergence of these new terms is not merely a linguistic curiosity but a reflection of the ongoing evolution in how we interact with technology and the challenges that arise from these interactions. As the digital landscape continues to expand and influence our daily lives, the importance of understanding and addressing ergonomic concerns through both design and discourse becomes increasingly vital. This study underscores the need for continued research and innovation in ergonomics, ensuring that as our technology advances, so too does our approach to using it in a way that benefits our health, efficiency, and overall quality of life. The neologisms identified and analysed here are signposts, guiding us towards a future where technology and human needs coexist in greater harmony.

REFERENCES

1. Stepanova I. S. Exploring the evolving dynamics of axiological concepts in the modern linguistic space: a comprehensive scientific analysis [Text] / I. S. Stepanova, S. S. Nykyporets, N. M. Hadaichuk // Modern Ukrainian linguistics: ethnological, axiological, pragmatic aspects : Scientific monograph. Riga, Latvia : «Baltija Publishing», 2023. – P. 162-190. <https://doi.org/10.30525/978-9934-26-365-1-9>.
2. Nykyporets S. S. Active internet neologisms of social networks and cross-platform online messengers // Perspectives of world science and education. Abstracts of the 8th International scientific and practical conference. CPN Publishing Group. Osaka, Japan. 2020. Pp. 117-121.
3. Медведева, С., Никипорець, С., Гадайчук, Н., Герасименко, Н.(2021). Порівняльний аналіз неологізмів англійської та української мов, що виникли внаслідок пандемії COVID-19. Проблеми гуманітарних наук: збірник наукових праць Дрогобицького державного педагогічного університету імені Івана Франка. Серія «Філологія», 48, 93-100. <https://doi.org/10.24919/2522-4565.2021.48.12>.
4. Nykyporets S. S. Diachronic analysis of lexical changes in the English language: the influence of sociolinguistic factors / S. S. Nykyporets, I. S. Stepanova, N. V. Herasymenko // Bulletin of Science and Education. Series "Philology". – 2023. – № 10(16). – Pp. 330-342. [https://doi.org/10.52058/2786-6165-2023-10\(16\)-330-342](https://doi.org/10.52058/2786-6165-2023-10(16)-330-342).
5. Stepanova I.S., Nykyporets S.S. The Internet and Linguistics: interaction and new prospects of corpus research. // Scientific Collection «InterConf», (52): April 21-22, 2021. - 2021. - Pp. 220-225. at Brighton, Great Britain. <https://doi.org/10.51582/interconf.21-22.04.2021.025>.
6. Iryna Stepanova. Working with foreign language texts on a speciality in non-linguistic higher education institution. / Iryna Stepanova, Liudmyla Ibrahimova, Svitlana Nykyporets, Vitalina Derun. // Grail of Science - 2021. - № 10. - С. 387-392. <https://doi.org/10.36074/grail-of-science.19.11.2021.077>.
7. Stepanova I. S. Some functional-stylistic features of the modern scientific text / I. Stepanova, S. Nykyporets // Grail of Science, № 2-3, 2 квітня 2021 р. – 2021. – Pp. 338-340. <https://doi.org/10.36074/grail-of-science.02.04.2021.069>.

Чопляк Вікторія Володимирівна – викладач англійської мови, Вінницький національний технічний університет, Вінниця, e-mail: nikavnuchkova@gmail.com.

Viktoria Chopliak – the lecturer of the Department of Foreign Languages, Vinnytsia National Technical University, Vinnytsia, e-mail: nikavnuchkova@gmail.com.