

to increase and ecological awareness spreads. Whereas SSDs have a higher upfront cost, savings from reduced energy consumption and reduced cooling requirements can balance out over time. On the other hand, HDDs are still very good value when considering cost per terabyte. A mix of these economic and technical factors dictates how companies develop their storage systems, balancing immediate performance needs with ongoing budgetary and sustainability challenges.

The performance and cost dynamics of hybrid storage were quantified by experimental analysis. A total of four drives were tested with fio under the same conditions, comprising two 1 TB SSDs using NVMe and SATA and two 2 TB HDDs using 7200 rpm and 5400 rpm, respectively. Random 4 KB tests simulated hot workloads, while 1 MB sequential tests represented cold storage; each was repeated five times for consistency.

Economically, the price of a 1 TB HDD was about US\$60 versus US\$90 for a 1 TB SATA SSD. The performance was different: SSDs reached ~50,000 IOPS at ~0.05 ms of latency, while HDDs could provide up to 150 IOPS at 8-10 ms. Power draw also favored SSDs, reaching ~6 W compared to ~8 W for HDDs.

A five-year TCO model demonstrated that on a \$1,000 budget, the optimal mix is approximately 30 % SSD and 70 % HDD capacity-ensuring speed for critical tasks and low-cost storage for infrequent data.

On the whole, these findings confirm that actual storage efficiency is a combination of SSDs and HDDs: SSDs provide speed, while HDDs provide economical capacity. It is their balance, rather than the dominance of one technology over another, that defines sustainable and effective data architecture.

E. Gross

Е. А. Гросс

БГЭУ (Минск)

Научный руководитель И. В. Ивашкевич

INTERNET COMMUNICATION AS A POWERFUL FACTOR IN THE TRANSFORMATION OF THE MODERN LINGUISTIC AND CULTURAL ENVIRONMENT

Интернет-коммуникация как мощный фактор трансформации современной лингвокультурной среды

Internet communication is radically changing the way people interact and is a powerful catalyst for the transformation of the linguistic and cultural environment. It influences language and culture, forming new genres, styles, and norms of communication.

The purpose of this article is to analyze how the unique features of Internet communication create new genres, styles, and norms, as well as to examine how specific digital tools (memes, emoticons, hashtags) influence everyday language.

Internet communication is characterized by a number of features that contribute to linguistic innovation: mixing of semiotics (the use of different types of signs (text, images, audio, video)); blurring of boundaries (the blurring of differences between spoken and written language, formal and informal communication); speed and synchronicity (the desire for immediate exchange of information, which contributes to the economy of linguistic means). These factors have led to the emergence of new genres such as social media posts, memes, tweets, comments, online chats, etc. Each of them has its own unique structural and stylistic features.

Particular attention should be paid to specific elements that have become widespread in Internet communication and have a direct impact on everyday language and culture: emojis and emoticons (these graphic symbols serve as paralinguistic tools, replacing or supplementing nonverbal cues (facial expressions, gestures, intonation) that are absent in text-based communication, they allow users to convey their emotional state and attitude toward the subject of conversation, and often become a key element of the message); memes ((images with text, videos, phrases) have become a universal means of expressing ideas, jokes, and cultural references, they are quickly becoming part of everyday speech, forming common cultural codes and new norms of expression; hashtags (originally intended for tagging and organizing content by topic, hashtags have become a powerful tool for expressing the author's position, irony, or belonging to a particular community, they can function as separate statements or comments on the main text); abbreviations (the desire for speed in communication has led to the widespread use of abbreviations (e.g., «LOL», «PLS», «OMG»). These elements not only save time, but also signal belonging to a particular group of users, forming a kind of «online slang»).

Despite its innovations, internet communication gives rise to a number of problems: simplification of language (ignoring punctuation and simplifying syntactic structures can have a negative impact on literacy); risk of misunderstanding (the use of slang and memes can lead to misunderstandings between different social groups and generations); reduced structural complexity of text (imitating spoken language in written communication transfers unfinished phrases and spontaneous remarks into the text).

Analysis shows that Internet communication is not just a channel for data transmission, but an independent linguistic and cultural model that has completely erased the boundaries between spoken and written language, leading to the emergence of the phenomenon of «written orality». Specific digital tools have gone beyond their original functions: emojis (have become a universal supranational emotional code that compensates for the lack of intonation and facial expressions); memes: serve as a tool for society to respond quickly to current events. Hashtags: have become a means of evaluating and combining disparate statements into a single discursive flow. These changes demonstrate the deep penetration of digital innovations into everyday language and culture, confirming the dynamism and adaptability of language to the challenges of the new communication era.