THE IMPACT OF DIGITALIZATION ON THE UNDERSTANDING OF PARADIGM AND SEMANTICS

Isaeva Zera Tairovna
Lecturer Fergana State University.
Fergana, Uzbekistan.
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Abstract. The article examines the impact of digitalization on the modern understanding of paradigm and semantics in the context of the development of information technologies and their integration into various spheres of human activity. It analyzes how digital tools and platforms change traditional approaches to knowledge and meanings, forming new models of communication and presentation of information. The study addresses the issues of adaptation of scientific and cultural paradigms in the context of a rapidly changing digital landscape. In addition, the prospects arising from these changes and their impact on educational systems, business processes and social interactions are considered.

Key words: digitalization, paradigm, semantics, information technology, knowledge, communication, cultural changes, educational systems, business processes, social interactions.

Digitalization, which permeates all aspects of life in the 21st century, significantly affects the understanding of paradigms and semantics in various fields, including linguistics, communication, and sociocultural processes.

Digital technologies lead to changes in traditional language paradigms, that is, to structural and functional changes in language. For example, new forms of expression associated with Internet culture, such as abbreviations, acronyms, and emojis, are emerging. These changes affect the way we perceive and create linguistic units, which can lead to more flexible paradigm systems based on contextual use.

The information age, its dominance and expansion, and its impact on society, culture, and even nature have led to many interpretations and conclusions. M. Castells, [1.102] a well-known researcher of the impact of information and communication technologies on socio-cultural changes in the modern world, argues that it is difficult to assess the impact of informatization on the culture of the network society due to its novelty. However, he emphasizes that major changes are brewing. His attention is focused not only on the technological aspects, but also on the cultural consequences of these transformations. He supports the views of M. McLuhan, who argued that

television threatens print culture by suppressing previous cultural forms. Castells describes this risk as a transition from the “Gutenberg galaxy” to the “McLuhan galaxy”.

Modern studies of informatization have divided scientists into two groups: some see in this process signs of progress, pluralism and democratization of society, while others emphasize the risks associated with information flows and the dependence imposed by the global network.

Mythologization is one of the methods used by mass media, when some facts are hushed up and others are emphasized in order to attract the attention of the audience. Myth is a tool for influencing people's opinions and behavior, which "combines notification, suggestion and prescription". [2.56]

Despite the threats posed by information influence, it is also important to consider the positive aspects, because access to a variety of information has become fast and broad, which has no analogues in the history of mankind. V. Humboldt [3, p. 48] already in his time compared language with the national spirit, introducing such concepts as “the spiritual strength of the people” and “linguistic consciousness” into linguistics and philosophy. He was one of the first to see language as a product of social development, changing under the influence of socio-cultural conditions.

Mass communication involves the participation of a large number of people united by a common goal or topic of discussion, using technical means of communication. This interaction is usually an interactive process in which each participant can express his or her opinion using the language means accepted in a particular community. In the context of Internet communication, users create a unique language based on specially designed symbols and signs transmitted through computer systems.

Communication on the Internet also implies the formation of a certain culture of behavior, which includes the corresponding speech practice. Considering interpersonal communication on the Internet, the Russian linguist T.V.Yudina [4., 36] notes the anonymous nature of such interaction, since the participants, as a rule, do not know each other. The lack of personal contact and the inability to convey one's emotions in words contribute to the fact that emoticons are actively used in Internet communication - graphic symbols depicting faces that help express feelings in electronic texts. These "smileys" act as a means of conveying the attitude of one user to another, as well as the assessment of various events and messages.

In the cultural environment of the network, artificial words and expressions are constructed that seem to be based on natural languages, but often use metaphorical meanings and transform the forms of these words due to the deliberate change of their spelling. Such distortions can manifest as vulgarization, when letters are replaced, doubled, etc. Examples of this kind include the so-called "Albanian language" and the jargon "padonkaff", where expressions are distorted to create a new lexicon: "bukfa" instead of "letter", "many bukaff" instead of "many letters", "krasafcheg" instead of "krasavchik" and "dafai" instead of "daivai".

Digitalization also affects semantics, changing the meaning of words and expressions depending on the context. For example, digital platforms facilitate the accelerated emergence of neologisms, as well as the modification of existing words. The meaning of Russian words can change depending on their use in social networks, blogs or other forms of online content. This creates a need for constantly updated dictionaries that would be able to reflect current semantic changes. New words (neologisms) are actively formed in computer vocabulary. One of the common methods is transliteration, as, for example, in the case of the word "web" (from the English "web" - network), which has become the basis for many derivatives: website, webmaster, etc. These words are closely related to Internet technologies.

A significant portion of modern neologisms are of foreign origin. Examples include "gadget" (from English "gadget" - device), "spam" (from English "spam" - mass mailing of unwanted information) and "like" (from English "like").

The spread of the Internet and social networks has led to the emergence of new words and abbreviations in online communication. Saving time is an important factor in online communication, which contributes to the emergence of such abbreviations as IMHO ("in my humble opinion") [5, p. 120]

The Russian language is constantly enriched with new words related to digital technologies and the Internet. However, excessive use of neologisms can lead to oversaturation of the language and, as a result, to its impoverishment.

In the digital age, context plays a key role in understanding meaning. For example, on social media, the same message can be perceived differently depending on the audience, platform, and even the time of publication. This requires users to be intellectually flexible and culturally literate to correctly interpret meanings, abbreviations, and slang.

Some modern researchers dispute the positive impact of digitalization on the intellectual level of society. They argue that the Internet has a negative

impact on reading skills, complicates analytical thinking and blurs the very concept of "text". For a more in-depth analysis, let us consider the classical linguistic definition of text and its transformation in the context of the modern information environment. Traditionally, text is defined as a meaningful sequence of symbolic units that has coherence and integrity [6, p. 120]. In addition to these characteristics in scientific literature, semantic completeness, systemicity, structure and communicativeness are added. However, the evolution of the information space has given rise to new forms of texts that reflect such trends as non-linearity, brevity, fragmentation, and interactivity. This has led to the emergence of new terms such as "web text", "digital text", "text of a new nature", "precedent text", "polycode text", and "creolized text". These new text formats are characterized by hypertextuality, multimodality, fragmentation, active use of infographics and augmented reality, where the effectiveness of impact often prevails over the depth of meaning.

In the era of the information explosion and the growth of computing power, new methods of text analysis and processing are emerging. Various techniques for text analysis (semantic, morphological, syntactic), necessary both for machine learning and for training students of all levels, including future machine learning specialists, are becoming increasingly popular. As Kuznetsov, Bednyak and Ponomareva note, text pre-processing is the most labor-intensive process, including six key stages.

The first is tokenization (breaking the text into tokens: words, phrases, symbols).

The second is removing stop words (function words, pronouns, numerals).

The third is stemming (reducing words to their root form, for example, "jump", "jumps", "jumped" - to "jump").

The fourth is lemmatization (reducing words to dictionary form, for example, "jumped" - to "jump").

The fifth is morphological tagging (determining the part of speech for each word).

The sixth is extracting semantic information useful for sentiment analysis, search, etc.

Antonov emphasizes that the use of such methods in education contributes to a deeper assimilation of the material and effective reflection of what has been read (for example, through concept maps). The integration of automatic text processing systems into the educational process, which is especially relevant in the modern innovative economy, contributes to the development of a

competitive education system. Timchenko and Prokhorov note the importance of electronic teaching aids and propose a new principle for automating their creation, based on changing the internal content of electronic documents (rtf, doc, html, txt) by analyzing user rules. This principle is constantly evolving, as evidenced by the works of Buzhinskaya and Makarov, as well as Boldyreva and Burdinsky.

Contemporary research in linguistics increasingly examines the impact of digitalization on paradigms and semantics. Professors and researchers emphasize the need to study new semantic changes and their implications for communication and language in general, calling for a deeper understanding of digital discourses. Modern education, both in the CIS countries and abroad, is undergoing significant transformations due to the growing importance of intercultural dialogue, the development of online learning, and the evolution of software for creating multimodal texts. Appropriate tools are needed to effectively organize the educational process and work with new text formats. Standard Microsoft Office packages that allow you to create hyperlinks and tooltips are available and widely recommended for didactic purposes (Gvozdev, 2020). To solve various problems of text analysis, Belov, Zrelova, Zrelov and Korenkov suggest using the PROMT Analyser program, which is effective in analyzing external resources (media, blogosphere) and implementing educational technologies such as SEO copywriting and creating longreads. Artificial intelligence tools such as Grammarly, PaperRater.com and ChatGPT are used in automated checking of student written works in foreign languages. This contributes to the emergence of new methods of working with text information. Thus, in didactic practice, both various approaches to the analysis and automatic processing of texts and simple, accessible software tools that facilitate work with complex, multi-aspect text formats, including texts of a "new nature" are successfully used.

Thus, digitalization radically transforms our understanding of the paradigms and semantics of language, creating new challenges and opportunities for research and practical use of language in different contexts. This requires flexible approaches, innovative methods and interdisciplinary collaboration to fully understand and describe linguistic changes in contemporary society.

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