

## **The Morphological Variation of Digital Technological Terms**

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**Abstract.** This article mainly aims to reveal the morphological properties of digital technological terms, in which the formation of terms related to digital technologies, their structural arrangement, their components, synthetic description, functional properties and classification are given.

**Keywords.** Spoken language, standard, professional, science, technique, terminology, model, system, affix, blogger, function, computer, monitor, disk driver, technology, synthetic, component, classification.

Karakalpak language is the common spoken language of Karakalpak residents. It is a language that falls under one standard grammatically. The increase of the professional activity of the residents, the development of science and technology develops the professional terminological category. When studying the formation of digital technological terms in the Karakalpak language, it can be seen that they were formed through several models of word formation and took their place in the language.

The formation of digital technological terms in the vocabulary of the modern Karakalpak literary language, its composition (simple, compound), vocabulary category (proper and adopted words) are systematically unique. In Karakalpak language, there are cases of productive and nonproductive use of affixes in the formation of digital technological terms through affixes. In the Karakalpak language, the affix -shı /-shi,-liq /-lik is used productively in forming digital technological terms. For example: dástúrshi (programmist), kompyutershi, blogerlik etc.

Digital technological terms in modern Karakalpak language are often formed by the following word-forming affixes.

Affix -shı/-shi. This affix is productively used in forming digital technological terms. For example: dúziwshi, kompyutershi, dástúrlwshi etc.

Affix -liq/-liq, -shılıq/-shilik. We can see that this affix is often added to nouns when forming digital technological terms. For example: funkciyalıq, blogerlik etc. In addition, the affix -liq/-liq is added to the words of Russian language and words of other languages came through the Russian language to form derivative nouns related to the profession and it forms derivative noun in the sense of digital technological terms. For example: kompyuterlik, monitorlıq, diskovodlıq (qurılmalar) etc.

The affix -shılıq/-shilik is used to form a derivative word by adding to nouns. For example: blogershilik etc. In some cases, this affix is added to an action verb and forms non-derivative nouns in the sense of digital technological terms, but in this case it is used non-productively. For example: dástúrlwshilik, baylanıstırıwshılıq (qurılmalar), etc.

The affixes *-lı,-sız* are used to form derivative nouns in the sense of digital technological terms. For example: *aralıklı, tarmaqlı, (baylanıs), aqıllı qala*, etc.

Compound words are used to express concepts that cannot be expressed in one word in the language, while the second type is used to express the meaning of some terms, sometimes as a result of borrowing words from another language, etc., due to these reasons, it has its place in the structure of the language. We see these features in the formation of digital technological terms used in the modern Karakalpak language. Paired and repeated types of compound words were specially studied by A. Najimov [4. 17]. In some works, this model of word formation is included in the synthetic method [3. 170], but in another work it is considered as a morphological-syntactic method of word formation [4. 16].

A. Bekbergenov in his scientific work on word formation shows that there are five main types of compound words in the Karakalpak language: derivative words, paired words, repeated words, compound words, shortened words [2. 8]. These types of compound words are also productively used in modern Karakalpak literary language. In the grammar book published in 1994, compound words were classified as derivative words, paired words, repeated words, compound words, shortened words, depending on the external form and type of components and the degree of integration [ 3. 22], but in the morphology textbook published in 2010, compound words were classified into five groups: derivative words, paired words, repeated words, compound words, shortened words [4. 18]. In the Karakalpak language, digital technological terms of the type of compound words are more productively used than digital technological terms of the type of stem or derivative words.

The main characteristics of technical terms in the field of digital technology are as follows: Stylistic neutrality, lack of sensory expressive coloration; accuracy and context independence; the need to clearly convey the importance of the synopsis in order to avoid misunderstandings and ambiguities of technical terms; existence of ambiguities within a specific terminological system; the existence of the possibility of creating terms; compatibility: that each term has a programmatic meaning within a specific terminological system; brevity by description; existence of definition, determination of boundaries.

The formation of a new word with a new meaning (digital technological term) in the Karakalpak language is distinguished by several features compared to other word formation methods. When forming digital technological terms through this model, several words are connected with the help of various grammatical means, and their components are in a mutual lexical-grammatical unity. The formation of digital technological terms with the model of word addition is made up by a) sequence of words; b) joining of words c) pairing of words with each other. Among these compound digital technological terms, digital technological terms of compound word type (not combined) formed by the sequencing of words are effectively used in Karakalpak language. Compound digital technological terms depending on the number of words in the composition has two, three, four or even multi-component types.

Two-component digital technological terms: These are mainly formed in the following ways:  
1. Digital technological terms whose components come in the form of stem words without affixes. For example: *elektron xabar, kiber álem*, etc. The words that appear as the first component of this two-component compound digital technological terms according to their external form are formed in the head agreement. 2. Digital technological terms whose components have received affixes. For example: *aqıllı úy, aqıllı xana, uyalı baylanıs* etc. The affix *-lı /-li* is attached to the initial component of these two-component digital technological terms.

In turn, multi-component digital technological terms have three, four, five and even more components.

1. Three-component digital technological terms: These are digital technological terms that express a legal concept from the occurrence of at least three related words, connected with each other through various grammatical means. They have features of grammar tools which connect the components. For example: model platformasın tekseriw, avtomatlastırılğan basqarıw sisteması, elektron húkimet platforması, global basekilesiw indeksi etc.
2. Four-component digital technological terms: Such digital technological terms are connected using various grammatical tools to express a single concept. For example: global kiber qáwipsizlik indeksi, xabar qáwipsizligin támiynlew principini etc.
3. Five- and six-component digital technological terms. Digital technological terms with such a component, such as three- and four-component digital technological terms, have head agreement, direct and indirect agreement affixes, and some digital technological terms form words expressing the meaning of a legal concept by adding word-forming affixes. For example: xabar qáwipsizligi tarawındaǵı mamleketlik siyasat, xalıqaralıq sanlı ekonomika hám jámiyet indeksi, pútkil dún'ya sanlı básekilesiw reytingi, xabar qáwipsizligi texnologiyaların rawajlandırıw principini etc.

In the Karakalpak language, except compound words, combined words, paired, and shortened words are formed through the word-combination model. In the modern Karakalpak language, digital technological terms in the form of combined, paired, shortened words are also found, but they are small in number. For example: audio-video xabar, EEM, AKT, IT, etc.

The number of digital technological terms used in the Karakalpak language in the form of paired and shortened compound words is not very high, but they are productively applied in digital technological documents, public and political life. Many of the digital technological terms in the Karakalpak language consist of one- and two-component words. Multicomponent terms in the language are not considered as a positive phenomenon. The number of technological terms in the form of combined, paired and shortened words is also a minority in terms of number. Each of them has its own characteristics in terms of formation.

The main problems of modern terminology include the problem of determining the terminological properties of different terminological systems. Term formation, as a branch of terminology that helps to identify trends in the formation of new terms, plays an important role in the analysis of different term systems.

Taking all into account, the main features of the types of terms related to the field of digital technologies in the Karakalpak language are related to the above specific features. At the same time, it is necessary to say that we have extensively analyzed in our works based on many researches related to the properties of life expansion and the issues of classification of digital technological terms in other works.

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