CONCEPTUAL MODEL OF SENTENCES SEMANTICS FORMATION IN NATURAL LANGUAGE

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This paper presents the generative grammar application in linguistic modeling. Description of syntax sentence modeling is applied to automate the processes of analysis and synthesis of texts in natural language.

The article shows the features of the sentences synthesis in different languages of using generative grammars. The paper considers norms and rules influence in the language on the grammars constructing course. The use of generative grammars has a great potential in the development and creation of automated systems for textual content processing, for linguistic support of computer linguistic systems, etc.

In natural languages there are situations where the phenomenon that depends on context is described as independent of context (i.e., in terms of context-free grammars). In this case, the description is complicated according to the formation of new categories and rules. The article describes features in the process of introducing new restrictions on data classes through the new grammar rules introduction. If the symbols quantity on the right side of the rules are not lower than on the left then not-reduced grammar is presented. Then at replacement of only one symbol got context-sensitive grammar. In the presence of only one symbol on the left side of the rule context-free grammar is presented. None of these natural constraints on the left side rules are not possible to apply.

The theory of application of generative grammars for solving problems of applied and computational linguistics at the morphology and syntax level allows to create a system of speech and texts synthesis, create practical morphology textbooks and inflection tables, concluding the morphemes lists (affixes, roots), to determine the performance and frequency for morphemes and the frequency of different grammatical categories realization in texts (genus, case, number, etc.) for specific languages. Developed models on the basis of generative grammars for linguistic functioning computer systems designed for analytical and synthetic processing of textual content in information retrieval systems, etc. are used. It is useful to introduce all the new restrictions to this grammar, getting narrower of their classes. In describing the complex range of phenomena there is a limit of used description means set, and considering these features, which are served in general, is obviously insufficient. Research begins with minimum means. Whenever there are not enough (smaller portions) new means are gradually introduced. It is possible to determine exactly what means can or can not use in the description of a phenomenon for understanding its nature.

Keywords – generative grammar, structured scheme sentences, computer linguistic system, content, content analysis, information resource, content system management.