

Compiler of the Georgian Grammatical Dictionary

Liana Lortkipanidze

liana.lortkipanidze@tsu.ge

Faculty of Exact and Natural Sciences, Computer Sciences

Tbilisi, University st.13

The purpose of the grammatical dictionaries is to indicate morphological and syntactical characteristics for every words. These characteristics are essential to form grammatically correct phrases. For each word there is a tag sets that can determine: which part of speech this word belongs to; its grammatical meaning; its grammatical forms; variants of using these forms or nonstandard structure of forms; will be form determination by their meanings or lexical compatibility, semantic discordances of correspondent forms; not existence or not usage of certain words etc. The difference between the Grammatical Dictionary and ordinary dictionaries is that this dictionary will offer the user not only initial word forms but also the whole paradigm derived from this word i.e. it shows the whole set of language vocabulary. In addition, we should note, that in certain cases the user may need only a specific member of the set and not the “standard” form of a dictionary. The Georgian language has an agglutinative-inflexed structure; hence, sometimes it is difficult to find the lexical meaning of the concrete form. Similar problem has already been solved for many languages by using automatic grammar dictionaries. Such dictionary has not been created for the Georgian language yet. A Georgian language learner may know the meaning of the primary form of the word, but in the context, it can change its form so that it may not be identified. Moreover, the likely service can be needed by some native Georgian users also, due to the inflexional-agglutinative structure of Georgian word forms and (not less) to the low degree of language knowledge of today.

Georgian grammatical dictionary will be represented by a software application. When a user puts an initial word into the system, the answer will be the whole paradigm of the word. This paradigm will be demonstrated to the user in the interactive mode. Here it should be mentioned that the system creates the forms that correspond only to contemporary literary norms. The proposed system will incorporate both theoretical and applicable merits. From the theoretical point of view, it models one of the most fundamental aspects of the language knowledge, particularly, its possibility to produce appropriate word form that satisfies the requirements for any grammatical context. Clearly, none of the dynamic model languages could be designed without such a component, because the input-output of those systems are represented by texts that are the sequences of words of correct morphologic form corresponding to the grammatical condition of the context. The grammar dictionary gives information on how the word changes in contemporary Georgian language: how it declines or conjugates, or shows that it is invariant. All words in the grammar dictionary has an input as a title form. Noun - in nominative case. Verb – in present tense of the third person singular form of subject or object.

Language models are very important means for cognition of some fundamental features of language, particularly, concerning its dynamic behaviour (bi-directionality, parallelism of its levels and interaction between them in the course of the process, etc.), on the one hand, and basis form for any practical systems (e.g. translation, language teaching, dialogue system, etc.), on the other hand.

Taking into account the above mentioned necessity of grammatical levels for these models, we can ascribe the same high status of importance to the proposed grammatical system. It can be used for teaching Georgian language; it will give the user studying the language the possibility to find corresponding dictionary entity by arbitrary member of its paradigm (in the process of text reading) or become the form of this paradigm which satisfies grammatical requirements of the intended context (by the producing of the text).

Keywords: electronic grammatical dictionary; morphological and syntactical tag sets; the natural language model.