APPLICATION OF THE MIVAR EXPERT SYSTEM
TO EVALUATE THE COMPLEXITY OF TEXTS

L.E. ADAMOVA[1], O.V. SURIKOVA[2],
I.G. BULATOVA[2], O.O. VARLAMOV [2]

[1] Russian New University,
105005, Moscow, 22 Radio str.
E-mail: rector@rosnou.ru
[2] BMSTU Moscow State Technical University named after N.E. Bauman
105005, Moscow, 2nd Baumanskaya street, 5, building 1
E-mail: edu@bmstu.ru

Reading and writing texts remains the basis for people's communication and training. A text is used for attracting people and describing various services and products. The number of texts is constantly increasing, which creates the problem of automated assessment of the texts complexity, their quality and the possibility of understanding by the target audience. Determining the complexity of texts is an important procedure that can be automated and used the following well-known methods for evaluating the texts complexity: automatic readability index ARI, Coleman-Liau index, Flesch readability index, Dale-Chall formula, SMOG test.

The problem of the texts complexity determining is relevant, important and practically significant. To assess the simplicity of the text for the reader's understanding, a mivar expert system for evaluating the complexity of texts has been created. The scientific novelty of the project is as follows: the formalization of decision-making and information processing tasks for assessing the texts complexity has been carried out; a new mathematical model of the mivar bipartite network including five procedures for assessing the texts complexity for the subject area "text complexity assessment" has been developed; a new problem-oriented decision-making system for determining the texts complexity was developed.

The created mivar expert system for assessing the texts complexity can be used to work with texts in various fields of activity: compiling automated textbooks, instructions, technical works descriptions, writing texts for SEO in the development of web sites. The evolution of mivar networks allows us to add new ways and methods for evaluating the texts complexity to our project.

Keywords: artificial intelligence, mivar, mivar networks, expert systems, recommendation systems, knowledge graphs, knowledge networks, decision-making systems, big knowledge, MOGAN, robots, understanding text meaning, texts complexity evaluating.

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Information about the authors:

Adamova Larisa Evgenievna, Candidate of Psychology, Associate Professor of the Department of General Psychology and Psychology of Labor, Russian New University (RosNOU).
105005, Moscow,. Radio street, 22.
E-mail: larisapers@yandex.ru

Surikova Olga Vadimovna, undergraduate of the IU-5 department of the Moscow State Technical University named after N.E. Bauman (BMSTU).
105005, Moscow, 2nd Baumanskaya street, 5, building 1.
E-mail: info@mivar.ru

Bulatova Irina Georgievna, Associate Professor, Deputy Head of the Department of IU-5, MSTU named after N.E. Bauman (BMSTU).
105005, Moscow, 2nd Baumanskaya street, 5, building 1.
E-mail: bulatovaig@bmstu.ru

Varlamov Oleg Olegovich, Doctor of Technical Sciences, Associate Professor:
1. MSTU n.a. N.E. Bauman (BMSTU). Professor of the department IU-5.
105005, Moscow, 2nd Baumanskaya street, 5, building 1.
2. Moscow Automobile and Road Construction State Technical University (MADI), professor of the Department of Applied Mathematics.
125319, Moscow, Leningradsky prospect, 64.
3. FSUE "RFNC-VNIIEF", Institute of Digital Technologies, program manager.
4. Research Institute "MIVAR", Chairman of the scientific and technical council, President.
E-mail: ovar@narod.ru