

ABSTRACT

Topicality of the topic: it takes a long time to classify artistic texts by a person (for example, an editor) for copyright infringement or for plagiarism verification. The solution to this problem is to automate the search for the author based on an analysis of the stylistic features of the author's letter. By using machine learning, you can create an automatic classifier that will improve the accuracy of classification compared to manual.

Purpose of the study: to develop models that provide recognition of the lexical and stylistic features of the author of the artistic text.

To achieve this goal, the following tasks were formulated:

- explore currently known methods and approaches for determining the style of the author;
- collection of training data, development of a classifier based on selected models;
- testing and analyzing the efficiency of the models used;
- defining further direction of research.

Object of study: stylistic features of the author's writing style. Definition of the author of the text. The process of determining the characteristics and classification of artistic texts in the Ukrainian language.

Subject of study: lexical and syntactic features of the written style of the author of the artistic text and algorithm for classification of textual data.

Research Methods: To solve this problem, we used lexical and syntactic features of the text, neural networks, the algorithm of reverse error propagation.

Scientific novelty: the most significant scientific result of the master's thesis is the developed model of determining the author of the text, analyzing his style of writing, using a model of punctuation and functional words of texts written in Ukrainian.

The practical significance of the obtained results is determined by the fact that the proposed and developed algorithm of training and definition allows to achieve the accuracy of the definition of the author of the text in 80%, which allows to use it for

verification of texts in the definition of copyright or when checking documents for plagiarism.

Relationship with working with scientific programs, plans, topics: work was performed at the Department of Automated Information Processing and Management Systems of the National Technical University of Ukraine «Kyiv Polytechnic Institute. Igor Sikorsky ”within the topic“ Mathematical Models and Technologies in DSS ”. State Registration Number 0117U000914

Testing: the results were taught in pre-protection work at the department of ASOIU.

Publications: Identification of the author of the text using artificial neural networks. International Electronic Scientific Journal - 2019. - №12. – URL: <https://nauka-online.com/en/publications/informatsionnye-tehnologii/2019/12/viznachennya-avtoratekstu-z-vikoristannyam-ann/>.

Defining the gender of the author of the short text by machine learning methods. International Electronic Scientific Journal - 2019. - №11. – URL: <https://nauka-online.com/en/publications/tehnicheskie-nauki/2019/11/opredelenie-pola-avtorakorotkogo-teksta-metodami-mashinnogo-obucheniya/>.

Keywords: STYLISTIC SIGNS, MACHINE LEARNING, CLASSIFICATION, AUTHOR DEFINITION.