ABSTRACT

Thematic justification. In modern world our choices in certain situations are more and more affected by other people's thoughts. Thus, while choosing products in online store, we will undoubtedly read the reviews about the product and the company producing it, and even reviews about the online store itself. In order to improve their businesses, owners of Internet resources should know the opinion of users, analyzing their comments on new articles on web portals or assessment of their products, placed on websites. While choosing politicians during elections, we read the latest news and discussions on social networks, sharing our thoughts. All of the above makes the task of automatic analysis of people's attitude on social networks and certain Internet resources a crucial task nowadays.

Analysis of emotional connotation is a part of the task related to natural language processing. Article [1] contains theses, describing how natural language processing helps in making medical decisions. Article [2] describes an expert system proposal for decision-making, related to finding archaeological evidence based on natural language processing.

Unfortunately, most modern solutions in this area are commercialized and closed for scientific analysis of their effectiveness and possible improvements. It should also be noted that none of existing systems supports Ukrainian language texts.

Object of research is methods of messages analysis and methods of natural language texts processing.

Subject of research is a set of messages on social networks.

Goal of research is research and improvement of methods for collecting and analyzing emotional connotation of messages on social networks.

Research methods. Methods, used in the paper, include the methods of

information retrieval and comparative analysis, mathematical modeling, clustering and machine learning.

Scientific novelty of research is that existing methods of social networks data processing and methods of analysis of emotional connotation of messages obtain further development. On their basis, a new algorithm for analyzing emotional connotation of large volumes of social networks messages using distributed computing paradigms has been developed.

Practical significance of the results obtained during the research is that the proposed system prototype allows conducting automatic messages analysis in real time and does not require dictionaries of emotionally colored words.

Study assessment. General provisions and the goal of the research were presented and published at the VII scientific conference of graduates and post-graduates named "Applied mathematics and computing – AMC'2015" (Kyiv, 15-17 April 2015) and in polygraph "Scientific notes". - Vol. 17 - Kirovohrad KNTU 2015.

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