IDENTIFICATION OF EMOTIONAL LANGUAGE EXPRESSION TYPES IN AUTOMATIC LANGUAGE PROCESSING APPLICATIONS

Olga Kanishcheva, Anna Medvedskaya, Anastasiya Panchul

National Technical University "Kharkiv Polytechnic Institute", UKRAINE, E-mail: olya-kanisheva@rambler.ru

The paper deals with the means of emotions expression in the language of the Internet and the comparative analysis of different approaches to extract the emotional elements. The main purpose of research is to develop a system for automatic selection of emotional elements in emails, which will help to analyze the tonality of the text better (Sentiment Analysis).

In this paper, the object of research is e-mail messages of the Internet. In the paper the existing methods of emotional elements extraction in the text and also systems that implement the Sentiment Analysis were analyzed. Described features of emotional elements, by means of which they are defined in the text were described. The use of notation of Backus-Naur form to highlight these elements was proposed in the paper. Proposed approach was implemented using the Java programming language. The approaches will automatically mark out by the appropriate tags incoming text messages. The research results can be used by linguists, analysts, experts in the field of Sentiment Analysis, and also other experts and specialists in the systems that allow automate natural language processing. Thus, the use of Backus-Naur notation and selection of features of emotional speech of the Internet allowed creating an efficient approach to the automatic selection of the emotional elements in email messages.

Keywords – automatic natural language processing, Sentiment Analysis, emotional elements, tonality, the Backus-Naur form.