

ABSTRACT

The size of the explanatory note is 131 sheets, including 23 illustrations, 28 tables, 4 sections, 3 applications, 25 sources.

Relevance of the topic. In today's digital world, crises associated with the publication of information in the media can quickly escalate and take on significant proportions, posing a crucial task for organizations to timely detect and effectively manage such situations. Considering the high speed of information dissemination and its impact on the reputation of organizations, the theme of crisis detection is particularly relevant.

Purpose of the study. To enhance the level of automation and response speed to crises in the media space by implementing a module into the existing software complex capable of detecting and analyzing crisis situations in real-time based on data from media sources.

Research object: The process of detecting and evaluating crisis situations in data from media sources.

Research subject: Methods and tools for detecting and assessing crisis situations in data from media sources.

To achieve the stated objective, the following tasks are formulated:

- collection of preliminary requirements for software;
- review of existing and similar solutions;
- analysis of approaches to detecting potential crisis situations in data from media sources;
- development of a real-time potential crisis detection service;
- development of an analysis and assessment service for potential crisis situations;
- development of a reaction service; Integration into the existing software complex;
- comprehensive testing.

The scientific novelty of this work lies in the refinement of the method for

evaluating news based on a combined analysis of numerical and text metrics of articles. A classification approach for crisis situations is proposed, which differs from existing algorithms by determining the class based on deviation from the predicted value of information dissemination, defining the service's response.

Practical significance. The development of software will help a greater number of organizations timely detect crisis situations, thereby reducing the potential negative impact of such situations on organizational activities. The development is carried out at the request of the LetsData Inc.

Approbation. The scientific findings of the dissertation have been approved at the "Software Engineering and Advanced Information Technologies SoftTech-2023" conference.

Keywords: crisis management, natural language, semantic analysis, anomaly detection, microservices, crisis management, crisis detection system.