Methods of determining performer of electronic requests processing

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In the paper methods of determining performer of electronic requests processing are suggested, their brief characteristics and implementation features are presented.
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I. Introduction

With the development of e-governance service of electronic requests to authorities gets more and more popular. For proper functioning this service needs a request processing system (RPS)[1].

One of the functions of this system is to designate executor for the received request. There are the following methods of assigning requests to performers:

- Basic method;
- Method of keywords and phrases;
- Method of designating thematic resources;
- Combined method.

II. Description of methods of determining performer

Basic method of designating performer is used for processing requests received via web-form. The author of the request chooses the appropriate subject category. Subject categories and the associated performers are determined by RPS administrator.

Basic method can be extended in case two or more performers are assigned responsible for one subject. In this case a request will be assigned to the performer who has fewer tasks.

In case of applying *method of keywords and phrases*, firstly text is analysed to see if there are any keywords. Each keyword should be assigned to some subject category. There is a performer responsible for each subject category. On calculating the number of keywords belonging to each subject category, we determine to which category corresponds the largest number of keywords, and then the responsible performer will be appointed for this task.

An important task of RPS is to assign performer to the request which have been made on web-forum or social network. For this task *the method of designating thematic resources.* For this method it is essential to make a list of all web-forums and social network groups where requests can be made [2].

When carrying out analysis of the selected web-forums, firstly, the content of the specific web-forum is researched and on the basis of the obtained information a responsible for dealing with each web-forum thread is appointed. When a new message appears on the web-forum, RPS forms a new request, which contains message text, information about the author and subject of the forum thread. This request will then be assigned to the performer responsible for this forum thread. The same procedure is applied to social network groups.

In case it is difficult to appoint an executor for a certain request knowing only the topic and keywords, the *combined method* should be applied. The basis for this method lie in the following productive rules:

- Priority of keywords – if the subject of the request meets the responsibilities of several performers, it is necessary to search and calculate the number of keywords corresponding to each subject category. Performer whose subject category has the biggest number of keywords will be appointed responsible for this task. This rule is applied in cases when one thematic resource belongs to several performers from various problem areas. The request will be assigned to the performer whose responsibilities correspond to the content of the request. This rule may also be applied when it is necessary to verify the accuracy of the choice of subject category when applying via web-form.
- Rule of the performer importance. If the request is re-processed or there is a complain on the work of RPS in the request then RPS manager becomes the performer of the request.
- Rule of the requester importance. If requester has privileges in processing his request in RPS, then for his request the most competent performer will be assigned and the request will be processed primarily.

Conclusion

The methods described above will help to simplify the process of assigning the performer to requests and to verify the fact that request text conforms to the selected subject category.

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