

VERIFYING THE SEMANTIC KERNEL OF HTML DOCUMENT BASED ON ANALYTICAL HIERARCHY PROCESSING

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Based on the analysis of the input data, we propose to perform the following actions. First, to propose a complex formula based on WEB metrics, but as widely accessible as possible for consideration, as a rating score. Secondly, we need to interpret the verification task as a task of calculating the rating score of digital content. By forming this assessment we form a rating of content and, accordingly, semantic kernels. In our case, we can not implement the stage of semantic kernel synthesis [1], but rate all content as a whole. We will rely on the following form of rating:

$$I = \frac{F(m_1, m_2)}{F_{\max}} * 100\%, \quad (1)$$

where $F()$ – function of kernel estimation. F_{\max} – the value of ideal semantic kernel.

If we analyze the physical reason of the function (1), then its value can be obtained either from an expert or through mathematical calculations such as analytical hierarchy processing (AHP). The paper proposes to implement only two metrics in formula (1). But potentially any number of metrics can be implemented here, because AHP allows this [2].

Then the problem of verification of the kernel is formulated as follows: having a set of HTML documents containing digital content, form a rating score (1) using the AHP method and arrange the provided documents and the corresponding kernels in them into a list for display to the user according to the value of the score (1).

The advantage of the approach provided is that we take as experts the Internet users themselves, who form digital content on a given topic. And they themselves are engaged in the verification of semantic kernels. The second advantage is that the selected rating method is classic and proven in practice. For simplicity, documents in English will be used as a test [3].

References:

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