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Patent Search

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Abstract:

The invention relates to a system and method for evaluating various attributes of a website using principles of graph theory. The website is modelled as a graph with nodes and hyperlinks as edges. The graph-based system and method, termed as the Graph-Based Website Evaluation System (GBWES), assesses attributes such as structure, navigation efficiency, page connectivity, content organization, user interaction, and accessibility. This comprehensive evaluation results in quantifiable score for each attribute and an aggregate score for the overall website. Furthermore, GBWES provides actionable recommendations based on the graph analysis and can predict possible navigation paths. The system sets a new standard in website analysis and optimization, facilitating the development of more user-friendly and effective websites.

Complete Specification

Description:The present invention generally relates to the field of website analysis and quality measurement. More particularly, the invention pertains to an innovative system and method for quantifying the attributes of a website using principles of graph theory, providing an objective evaluation of website effectiveness. The invention leverages algorithms based on graph theory for scoring various elements and attributes of a website such as its structure, navigation efficiency, page connectivity, content organization, user interaction, and overall accessibility. It further entails the use of these objective measurements to improve and optimize website design and function, enhancing user experience and satisfaction.

Background of the invention:

In the present digital age, websites are ubiquitous and play a critical role in a wide array of activities, including commerce, education, entertainment, social networking, and countless others. The effectiveness of a website, in terms of delivering its intended purpose, is significantly influenced by various attributes such as its design, content structure, usability, and accessibility. As such, objective evaluation and measurement of these attributes are crucial for improving and optimizing a website's performance and user experience.

Existing methods of evaluating website attributes often rely on subjective judgments or relatively simple heuristics. For example, user surveys and expert reviews have been widely used to assess the perceived quality of a website. However, these methods are typically subjective and can vary greatly depending on individual preferences, expertise, and experiences of the reviewers. Additionally, heuristic evaluation methods, while providing some level of objectivity, may not accurately represent the complex interactions and structures found in modern websites. These limitations underscore the need for a more robust and objective approach for assessing the attributes of a website.

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