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A Review on the Page Recommendation Model Using Machine Learning Approaches

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Abstract: The word “page or product range” means to rank the system to display the results and to provide suggestions to others. In day to day activities we rely on E-commerce ranking systems such as the page indexing or product ranking of movies like reviews of movies from newspaper etc These E-commerce ranking basically help us to decide what we should opt for when we have multiple options An E-commerce ranking system (RS) helps people that have not sufficient personal experience or competence to evaluate the, potentially overwhelming, number of alternatives offered by a Web site In their simplest form RSs recommend to their users personalized and ranked lists of items Provide consumers with information to help them decide which items to purchase. In this paper, we have proposed the improved model for the purpose of product recommendation with the higher accuracy and optimized elapsed time-based parameters.

Keywords: Product Recommendations, K-Nearest Neighbor, E-Commerce Ranking, Accessibility, Pattern Recognition.

INTRODUCTION

The sellers of e-commerce applications can maximize their revenues by using the collective intelligence of their Web site visitors while personalizing the application according to the customer needs creating in this way a great experience in real-time. A few years ago they were interested in how to manage, measure, and increase transactions. But most sellers have this figured out by now, so their focus has shifted to maximizing their revenues in new ways. Sellers have grown to be more interested in customer experience and service, personalization, and recommendations. Online retailers are looking for new ways to increase their revenues and to achieve better personalization meeting the customer goals. They are also looking for new ways to maximize revenues by deploying the recommendations they already have in place. The retailers have collected the benefits of the traditional product recommendations. Because they understand the capabilities of these technologies they are interested in tackling the newest issues such as navigating and social elements for their sites while ongoing the quest to improve the search. Therefore, the nature of the second wave of electronic commerce is related with:

1. Collective intelligence;
2. Self-service;
3. Customer centricity;
4. Personalization;
5. Recommendation

The e-Commerce market is still in its preliminary phase. Developing an eCommerce project implies a certain amount of risk. It is known that there are also projects that can overpass the deadline, there are even projects that do not fit in between the allocated budget, sometimes good projects can offer the expected results, but sometimes they don't. It is known that there are differences between the estimations and the outcome, but despite all the mentioned above this project will present a realistic algorithm which is meant to rank the e-commerce applications. In order to succeed with an e-Commerce business, one must imminently start by developing a well-structured business plan. A well-structured plan must be based on accurate information. In order to bring innovative ideas to the plan, the management team must be flexible and creative. The main idea is that a strong business plan represents a successful business.

LITERATURE REVIEW

Neha Verma et. al. have worked on the E-commerce Website Ranking Using Semantic Web Mining and Neural Computing. The authors have discussed the design of the new semantic web-based E-commerce page ranking model based on neural network. Hepp, Martin et. al. has worked on the Web of Data for E-Commerce: Schema.org and Good Relations for Researchers and Practitioners. In this tutorial, the authors have given a comprehensive overview and hands-on training on the advanced conceptual structures of

schema.org for e-commerce, including patterns for ownership and demand, and have present the full toolchain for producing and consuming respective data. Sessoms, Matthew, and Kemafor Anyanwu have worked on enabling a Package Query Paradigm on the Semantic Web: Model and Algorithms. The authors have introduced the concept of a *Package Query* for querying for resource combinations on the Semantic Web. Malhotra, Dheeraj et. al have worked on Intelligent web mining to ameliorate Web Page Rank using Back-Propagation Neural network. The speedy expansion of web is enjoyable because of the increase in information resources but at the same time, its huge size and interference of SEOs in search process lead to increased difficulty in extracting relevant information from the web. Furukawa, Takao et. al. have worked on the identification of the evolutionary process of emerging technologies. The authors have developed a chronological network analysis of World Wide Web conference sessions. In the evolutionary process of emerging web-based technology, the convergent session nodes that recapitulate past research topics and the divergent session nodes in the networks play significant roles in promoting dynamic interactions among research topics. Scioscia, Floriano et. al. have worked on the Mobile Matchmaker for the Ubiquitous Semantic Web. This paper presents Mini-ME, a novel mobile inference engine designed from the ground up for the SWoT. It supports Semantic Web technologies and implements both standard (subsumption, satisfiability, classification) and non-standard (abduction, contraction, covering) inference services for moderately expressive knowledge bases. Mital, Monika et. al. have worked on the determinants of choice of semantic web based Software as a Service. They have proposed an integrative framework in the context of e-procurement and ERP. The study is exploratory in nature and tries to identify, classify and rank dimensions affecting SaaS sourcing decisions.

FINDINGS OF LITERATURE REVIEW

1. The E-commerce ranking system relies upon the search engine time tracking of the users on the given web tool, which may give the falsified results. Additionally, it collects the data from the secondary source in the form of timestamp which may again falsify the overall time result, as the user may also go idle for a certain time, which may be the reason behind the prolonged time taken on the given page.
2. The existing model groups the keywords to rank the entities according to the E-commerce ranking systems, which may sometimes display puzzled results due to the complexity of the inter-keyword relationship. This can be easily overcome by using the per-keyword based E-commerce website and product ranking system.
3. The existing model is not capable of producing the real-time web priority listings, which can be further improved by using the page load speeds, navigation accessibility, and ease, online/offline comparison, security comparison etc as per stated in the future work.

CONCLUSION

The existing model does not consider the page loading speed comparison, ease of navigation comparison, page availability options (online/offline) and security comparison of the online resources on the E-commerce websites. The E-commerce website ranking model by using the latter parameters can be used to determine the correct possible result for the E-commerce ranking. The keyword analysis system to clearly choose the available groups of E-commerce pages for the effective ranking system. The existing model is not capable of producing the real-time web priority listings, which can be further improved by using the page load speeds, navigation accessibility, and ease, online/offline comparison, security comparison etc as per stated in the future work.

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