

Physician Recommendation System Using Preference Learning Algorithm: A Review Paper

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ABSTRACT: Web-based appointment system are emerging in health care industry providing with convenient and diversified services, among physician recommendation becoming more and more popular to make assignment. Currently patients with heterogeneous illness conditions and then patients could select one physician for appointment according to their preferences capturing patient preferences is essential for physician recommendation delivery; however it is also challenging due to lack of data on patient preferences. In this review paper we studied physician recommendation problem by preference learning algorithm that will optimized the recommendation and learn.

I. INTRODUCTION

Now day's health is the most important assets in life and whenever we fall illness patient need to get good treatment by physician. Currently whenever patient comes to general practitioner, he/she suggest physician manually to patient that can be harmful to patient. We are come with solution when patient goes to general practitioner, practitioner will upload symptoms three physician. To suggest physician we are using preference learning algorithm. This algorithm suggest physician on the basis of physician experience and patient information.

II. LITERATURE SURVEY

Author: J.Song, Y.Oiu, and Z.Jiang, "Integrating (2016)

The imbalanced development among different levels of health care facilities has become a major social issue in China's urban health care system, which has caused the irrational patient flow distribution on the levels of both intra-hospital and inter-health care facilities. In this research, we develop a methodology to find the optimal macro level patient flow distribution in terms of multidimensional inputs and outputs for the two-level health care system. The proposed method integrates the discrete-event simulation (DES), the multi-objective optimization and the simulation budget allocation together to comprehensively improve the overall system performance by finding the approximate Pareto patient flow distribution in the hierarchical health care system. The multi objective optimization is used as the fitness measurement to each design. A case study based on the real data which is carried out to validate and improve the proposed method. The results of the case study show the recommended optimal patient flow distribution can improve the overall hierarchical system performances and our methodology are qualified as a quantitative decision tool for decision making.

Author: Xiang Zhong, Shanshan Li ; Philip A. Bain ; Albert J. Musa (2016)

Primary care, the strength of the nation's healthcare system, is at the risk of collapse. Patients are dissatisfied due to poor access to care, and physicians are not happy and burning out with an enormous amount of tasks. To improve the primary care access, many healthcare organizations have introduced electronic visits (or e-visits) to provide patient-physician communications through protecting messages. In this paper, we introduce an analytical model which study e-visits in primary care clinics. Analytical formulas to evaluate the mean and variance of the patient length of visits in primary care clinics with e-visits are derived. System properties are investigated. In addition, comparisons of different scheduling policies between the office and the e-visits are carried out. The first come and first serve, Show that the first come first serve policy typically leads to the best performance [2].

Author: Benjamin Stark, Constanze Knahl, Mert Aydin, Mohammad Samarah, Karim O. Elish (2017)

Migraine is a common disease throughout the world. Not only does it affect the life of people on large scale, but it also leads to high costs, e.g. due to not able to work or various required drug-taking cycles for finding the best drug for a patient. Solving the latter aspect could help to improve the life of patients and decrease the impact of the other consequences. Therefore, in this paper, we present an approach for a drug recommendation system based on the highly scalable native graph database Neo4J. The presented system uses simulated patient data which help physicians gain more transparency about which drug fits a migraine patient best considering her individual features. Our system shows that the proposed system works as intended. This means that only drugs with highest relevance scores and no interactions with the patient's diseases, medicine or pregnancy are recommended. [3]

K. Zhou, G. R. Xue, H. Zha, and Y. Yu.

In the view of these problems, Xue proposed to combine ties and preference data using statistical paired comparison models. Tsai provided a novel loss function named fidelity loss, which overcame the shortcoming of Rank Net without upper bound. Burges defined a virtual gradient by adding the change of the evaluation measure caused by swapping the positions of two documents to

the loss function. Lint successfully constructed a new form of group sample called one-group, and proposed a ranking location approximation function. Experimental results on data sets show that these algorithms can all achieve more accurate retrieval results.[4]

Author: C Boutilier, R I Brafman, C Domshlak, H H Hoos, D Pool

If the predicted preference order is required to be a total order, the problem is also called the ranking problem .CP-nets are proposed to solve the preference problem between variables. In the following, we introduce related work in two aspects: mode learning and structure learning. preference statements over the values of a set of variables [5].

III CONCLUSION

This we studied in previous papers physician are suggested manually or on the basis of location. In our system we are trying to solve this problem by using preference learning algorithm using this system will suggest physician on the basis of ranking.

References:

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