IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

DYNAMIC RECOMMENDATION OF PHYSICIAN ASSORTMENT WITH PATIENT PREFERENCE LEARNING

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Abstract: Web-based appointment systems are emerging in healthcare to provide patients with convenient and diverse services, among which physician referral is becoming an increasingly popular tool for assigning physicians to patients. Motivated by a popular physician referral application on a web-based appointment system in China, this paper presents pioneering work in modelling and solving the physician referral problem. The application brings personalized recommendations of medical assortments to patients with heterogeneous disease states, and subsequently patients choose one doctor to visit according to their preferences. In this project, we formulate the physician recommendation problem, based on which a preference learning algorithm is designed that optimizes recommendations while learning patient preferences. Since patients' disease states are heterogeneous, the goal of the algorithm is to create individual recommendations for each patient. In addition to demonstrating the efficiency of the algorithm's performance in terms of regret limitation, we also provide extensive numerical experiments that show the expected performance of the algorithm. We introduce the flexibility of adjusting the update interval of preference estimation into our algorithm and conclude that a short update interval contributes to short-term performance, while a long update interval leads to good long-term results. Next, we analyze how the preference binding helps the algorithm perform explorations, which represent the two main contributions of our algorithm.

Index Terms **-** Dynamic policy, learning patient preferences, physician referrals.

I. INTRODUCTION

Advances in information technology have spawned a host of web applications, including e-commerce, online flight and hotel reservations, and online health services. Model and analyse electronic visits for example in primary care and explore web-based appointment systems. According to several industry findings, patients are unable to find the most suitable doctor for their disease due to a lack of medical understanding. To this end, the doctor's advice that is the basis of this research becomes an effective tool for web or mobile applications to allocate appropriate resources to patients.

Generally, these apps offer ordering services to patients through doctor selection referrals from which they can choose one for medical services. Patients must first select their preferred hospital location and appointment time before starting the service. Unlike traditional structures that provide services dependent on physical location, hospitals undergoing transformation in line with current needs are now focusing on integrating cutting-edge technologies (telemedicine, mobile health, digital hospitals, etc.) into service processes and execution. services to remote regions with a "digital hospital" concept without time and space limitations, unlike traditional structures providing services dependent on physical location.

The concept of the digital hospital is a trend that has recently gained ground and has been adopted by rich countries. By integrating cutting-edge technologies such as medical devices, smart information systems, equipment management and automatic conveyor systems, location services, sensors and digital communication tools into healthcare processes, the digital hospital concept contributes to improving staff productivity and facilitating hospital operations. improving the quality of processes and ensuring patient safety. The method is intended to help both doctors and patients. Our solution is a self-contained system that can be uploaded to doctor and patient Android phones and used for subsequent logins. Doctors understand the patient's difficulties and react as quickly as possible, saving the patient's life within seconds.

II. SYSTEM ARCHITECTURE

The electronic visit, as a new alternative to the traditional office visit, has attracted increasing attention in recent years. Many healthcare organizations, such as Henry Ford Health System, Mayo Clinic, Kaiser Permanente Health Plan, and the University of Pittsburgh Medical Center, have launched e-visit programs. Most e-visit studies focus on examining the effectiveness and patient/provider experience of implementing e-visits. Quality of care and patient outcomes using e-visits are reported to be equivalent to those achieved with office visits. Implementation of e-visits can free up additional office visits for patients with urgent and complicated problems, reduce urgent care and emergency room visits and hospitalizations, improve care for the elderly population with chronic conditions, and substantially reduce the cost of care Other studies are examining issues such as billing and reimbursement, information system structures, legal and regulatory issues, financial return, and system implementation and training. This paper quantifies the overall impact of e-visit adoption on physician decisions and expected revenue and expected patient health outcomes. A follow-up study based on these results argues that e-visits represent a gateway to transforming traditional primary care delivery.

III. MODULES

- Maintain the patient
- Maintain information as a hospital
- Maintain emergency information
- Reservation system available
- Disease prediction
- Appointment
- Travel equipment
- Feedback

IV. LITERATURE SURVEY

1) Title of paper - Combining traditional learning and e-learning methods in higher distance education: Assessment of student preferences

By Gloria C. Alaneme, Peter O. Olayiwola, Comfort O. Reju

Description: Distance education is a system where students are separated in time and space from a teacher or educational institution for a reasonable period of their learning. It can include contact, non-contact and part-time education. The concept of distance education in higher education is no longer new to most nations around the world. It has been found to be a viable and pragmatic alternative in the education delivery process, especially at the tertiary level.

V. ACKNOWLEDGMENT

This paper couldn't have been written without the respected advice of Prof. Kanchan Pandey. Our special thanks visit all the professors of the computer engineering department of PK Technical Campus for their support and for giving a chance to figure on a survey of software task extraction and navigation.

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VI. REFERENCES

[1] X. Zhong, J. Li, P. A. Bain, and A. J. Musa, “Electronic Visits in Primary Care: Modeling, Analysis, and Planning Principles,” IEEE Trans. Autom.Sci. Eng., Vol. 14, No. 3, pp. 1451–1466, July 2017.