Abstract

Rapid proliferation of Internet technology and handheld devices has opened up new avenues for online healthcare system. There are instances where online medical help or healthcare advice is easier or faster to grasp than real world help. People often feel reluctant to go to hospital or physician on minor symptoms. However, in many cases, these minor symptoms may trigger major health hazards. As online health advice is easily reachable, it can be a great head start for users. Moreover, existing online health care systems suffer from lack of reliability and accuracy. Herein, we propose an automated disease prediction system (ADPS) that relies on guided (to be described later) user input. The system takes input from the user and provides a list (topmost diseases have greater likelihood of occurrence) of probable diseases. The accuracy of ADPS has been evaluated extensively. It ensured an average of 14.35% higher accuracy in comparison with the existing solution.

References
1. Pew Research centre health fact sheet:
   www.pewinternet.org/fact-sheets/health-fact-sheet.
3. Xiaoyan Wang, Amy Chused, Nomie Elhadad, Carol Friedman, and Marianthi Markatou:
   “Automated Knowledge Acquisition from Clinical Narrative Reports.” , AMIA 2008 Symposium
4. Nicolae Dragu, Fouad Elkhoury, Takunari Ralph and A. Morelli Nicolas di Tada:
   “Ontology-Based Text Mining for Predicting Disease Outbreaks.”, Proceedings of the
   Twenty-Third International Florida Artificial Intelligence Research Society Conference (FLAIRS
   2010).
7. Kumar Sen, Shamsher Bahadur Patel and Dr. D. P. Shukla: “A Data Mining Technique
   for Prediction of Coronary Heart Disease Using Neuro-Fuzzy.”, International Journal Of
   heart disease prediction bootstrap aggregation with multi-objective optimized voting Received.”
9. Slav Petrov, Dipanjan Das and Ryan McDonald: “A Universal Part of-Speech Tagset.”,
   Proceedings of the Eight International Conference on Language Resources and Evaluation
   (LREC 2012).
    30/10/2015]
14. Data Mining Concepts and Techniques, Third Edition: Jiawei Han, University of Illinois at
    Urbana–Champaign and Micheline Kamber Jian Pei, Simon Fraser University.
15. Patrick Ernst, Cynthia Meng, Amy Siu, Gerhard Weikum: “KnowLife: a Knowledge
    Graph for Health and Life Sciences.” 30th International Conference on Data Engineering
    (ICDE), 2014 IEEE, pp : 1254 - 1257.
17. Mount Adora Hospital & Diagnostic Center, Mirboxtula, Nayashark, Sylhet-3100.
19. Samaneh Moghaddam, Martin Ester: “Aspect-based opinion mining from product
    reviews.”, The 35th International ACM SIGIR conference on research and development in
    Information Retrieval, SIGIR ’12, Portland, OR, USA, August 12-16, 2012.
20. Amit X. Garg, MD; Neil K. J. Adhikari, MD; Heather McDonald, MSc; M. Patricia
    Rosas-Arellano, MD, PhD; P. J. Devereaux, MD; Joseph Beyene, PhD; Justina Sam, BHS; R.
    Brian Haynes, MD, PhD: “Effects of Computerized Clinical Decision Support Systems on
    Practitioner Performance and Patient Outcomes", JAMA.

Index Terms
Keywords

Relevant Attribute (RA) Data Structure, Word Tagging, Synonym Parent Tree, Reference Tag, Decision Tree.