

A Comparative Study of Classification Algorithms in E-Health Environment

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Abstract- in the past years, Health services has been converted from an offline paper oriented system to an online fully automated system ranging from maintaining detailed patients' information in a historical data base, online patient care, E-clinics, E-hospitals to mobile health applications in some countries. The use of information technology has the potential to help healthcare organizations improve the quality of its service. **In** the context of many industries especially the medical industry, improvement in the quality, accountability, accessibility, and efficiency of healthcare services can be directly tagged to the use to the daily upgrading Data Mining techniques. Data Mining can be used in enhancing the quality of the medical services offered through analyzing data and discovering hidden patterns and relationships that can enhance and even change the treatment methods adopted. **In** this paper ten classification algorithms are applied on a patients' dataset obtained from a public hospital's data base that contains patients both medical and personal information needed for diagnoses and treatment decisions. These algorithms are analyzed using a data mining tool and a comparative study is undertaken to find the classifier that performs the best analysis on the dataset obtained using a set of eight performance metrics to compare the results of each classifier

Keywords-e-Health; Data mining; Classification; Weka; Bayes Net.