



RESEARCH ARTICLE

A Pervasive Data Analytic Web Service for Educational Data Mining

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Abstract— Educational institutions can apply data analytical techniques on the large amount of data that is generated within. This would result in deriving useful knowledge from the data and thus help in decision making. In this paper we suggest a framework for pervasive data analytic web service which can be integrated into any university management system or built as a standalone application easily. Being a web service allows it to be accessed by any type of application, from desktop to mobile phones inside the campus and can even be hosted onto the private cloud of the institution. The web service based model provides greater advantages over the tradition data mining systems. We have built a prototype of this model to work with k-means clustering algorithm on a sample student data to demonstrate the capabilities and limitations of the proposed framework. And we have developed three different types of client applications to make it truly pervasive.

Key Terms: - web service; educational data mining; clustering and SOA

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