KDD CUP 2015- Predicting Dropouts in MOOC’S

Vaibhav Palve
Department of Computer Engineering, Mumbai, India

Abstract: There are education related problems today that have a direct or an indirect connection to the respective dropout students. Efficient methods of the same and spreading proper awareness about the online courses associated with education is the today’s need. The idea that a “Better use of technology leads to a Better solution” is the inspiration of the proposed system. The proposed system advises the user according to his/her requirement. The requirement ranges from gaining knowledge, maintaining progress and reducing drawbacks of existing system. The proposed system uses data mining as the tool to bridge the gap between the education and the users. The proposed system uses a classification algorithm to efficiently direct the respective user to the best possible solution. The WEKA software is used for the study implementation since it is freely available to the public and is widely used for research purposes in the data mining field.

Keywords: weka, ID3 algorithm, Eclipse.

INTRODUCTION

The proposed system uses a classification algorithm which gives information about no.of users intrested or not, it builds a decision tree from set of data and the resulting tree is used to classify future samples. Today the primary problem of education issues is based on exclusively considering the traditional teaching system. The proposed system is an upgrade to this approach, it considers various online educational factors(“clickstream data”) along with the MOOCs to efficiently groups the data according to behaviour of the users at the time of surfing. According to the system places the user in one of the following two groups: Intrested, Non-Intrested.

METHODOLOGY

The proposed system efficiently uses classification algorithms to effectively deliver the best possible expert advice to the user’s problem. The computing for teachers MOOC was designed and produced by the Department of computer science at The university of warwick. The purpose of the CFT MOOC was to assist school teacher in the delivery of the increased computing contain being introduced to U.K schools. The course ws to delivered in two different modes: “Traditional” MOOC mode with peer support and automated assessment options, and a paid “supported” mode which also included on-line tutor support and tutor supported forums and resources.

SYSTEM DESIGN

1.1 UML Diagrams

UML stands for Unified Modeling Language which is used in object oriented software engineering. Although typically used in software engineering it is a rich language that can be used to model an application structures, behavior and even business processes.
1.2 Data Flow Diagrams

A data flow diagram (DFD) illustrates how data is processed by a system in terms of inputs and outputs. As its name indicates its focus is on the flow of information, where data comes from, where it goes and how it gets stored.

1.2.1 DFD Level 0:

**Description:**

1. The user Admin logins with his/her login id and password.
2. Admin classified student data.
3. Create category on student such as Interested or not Interested.
4. Provide student data to train the data.
1.2.2 DFD Level 1:

Fig. 1.2.2 Data Flow Diagram Level 1

Description:
1. The user Admin logins with his/her login id and password.
2. Admin classified student data.
3. Create category on student such as Interested or not Interested.
4. Provide student data to train the data.
5. Admin can add new entry of student into the dataset after classification.
6. Admin can view classified student.

1.3 Activity Diagram

Fig. 1.3 Activity Diagram
1.4 SYSTEM BLOCK DIAGRAM:

![System Block Diagram](image)

**IMPLEMENTATION PLAN**

In our project we are using ID3 algorithm, in our project firstly we are accepting course data and student data after that mapping of student Id and course Id is occured then it will start processing. Next step is to check view time and total time of mapping then it will compare with threshold. If it is greater than threshold set as Interested else not Interested. Further proceed with to checking total Interested column and compare with threshold. If it is greater than threshold set as not dropout else dropout.

Algorithm: ID3 Algorithm

Step 1: start
Step 2: Accept course data
Step 3: Accept student data
Step 4: Accept mapping data
Step 5: start processing
Step 6: Check view time and total time of mapping, compare with threshold.
Step 7: If it is greater than threshold set as Interested else not Interested.
Step 8: Check total Interested column and compare with threshold.
Step 9: If it is greater than threshold set as not dropout else dropout.
Step 10: Stop

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