Abstract

Students face a lot of problems in their college/engineering life. CMS (Content Management System) is a platform for students to post their problems and let the authorities know what exactly their issues are. The data collected from students is huge. It’s important to extract some useful ‘knowledge’ from this data. Data Mining, which is a process of extracting useful information from a huge dataset, is applied to the CMS data to understand students' learning issues. This way, they can have a better future and a good academic career. Traditionally, educational researchers have been using methods such as surveys, interviews, to collect data, which is very time consuming and inefficient. Also, these methods have not given much insight into students' problems. Researchers have also used social media data, but the social media data is unreliable, unauthentic and mostly anonymous. In this dissertation work, the focus is on mining CMS data, which is authentic and real, as it doesn't allow users to go anonymous. CMS data is much more reliable as compared to other platforms.

In this dissertation work, data mining technique known as Classification (where the Engineering
students' problems are classified into certain classes) is used to implement a model where students' problems can be analysed which they face in their day to day college life, and also suggest the solutions for the same.

The knowledge extracted after applying Data Mining algorithms will be very useful for policy makers and educators in making informed decisions. The data generated by engineering students in future can also be mined and solutions can be provided instantly.

References

1. 80% of engineers in India unemployable  
   http://www.thehindubusinessline.com/economy/over-80-engineering-graduates-in-indiaunemplo yablestudy/article8147656.ece
3. C. Yuan, "Data mining techniques with its application to the dataset of mental health of college students," in Advanced Research and Technology in Industry Applications (WARTIA), 2014 IEE , Ottawa, ON, Canada, 29-30 Sept. 2014.
7. Data Mining Concepts. Classification:  
   https://docs.oracle.com/cd/B28359_01/datamine.111/b28129/classify.htm#DMCON004
8. Naive Bayes Archives - Analytics Vidhya  
   https://www.analyticsvidhya.com/blog/2015/09/naivebayes-explained
9. RapidMiner www.rapidminer.com
10. Content Management System (CMS)  
    http://searchcontentmanagement.techtarget.com/definition/content-management-system-CMS

Index Terms

Computer Science          Artificial Intelligence

Keywords
Students' problems, Engineering Students’, Data Mining, RapidMiner, Text Mining, CMS, Classification, Naive Bayes Classifier.