

Sentiment Exploration System to Improve Teaching and Learning

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Abstract

The paper describes the research of the students pursuing higher education calculating their skills, behavior, emotion, learning style and methods of the students using learning inspect in smart way. The learning inspect is the smart and innovative way of detecting the student aspects. In this we consider a group of students who taking the online test and record the students interaction with each part of the test by providing the option to each and every questions. The recorded data is stored in the data base. After the completion of the analytical test the outcome the data of the individual student is calculated. The calculated data may provide the students learning ability and how they tackle the exam and how they prepare themselves in the exam. It also shows that the handling of pressure during the time of exam. The exception outcome is being correlated with the various parameters to detect the student survival and the performance in their academics. This method is being expected and made to turn all of their intention towards it.

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1. Introduction

Now a days the student who are pursuing the higher education can be suffer from mentally disturbed they does not have the ability to tackle the mental disturbance. And some of the students due to the exam pressure they would not react to others in all situations. To predict these learning analyses is used. The learning inspect is the method of predicting the students behavior, learning methods, emotion and judge the capability of the student before itself. The student can undergoes a analytical test. The analytical may consist of various parts of

parameter. The each parts of parameter can sub portions. The each sub portions contains minimum five questions. The each question is provided five options. The options are strongly agree, moderately disagree, slightly agree, moderately agree and strongly disagree. The student wants to understand it and respond according to it. The want to mention a tick mark which option is for the question according to him. The answer are been monitored and it gets stored in the data base. Before taking the analytical test the students want to do mention the personal details which would helpful to identify the particular student analytical. This

scheme is more innovative compared to the other present system in the academics studies. The questions are not much as ordinary it is to check the personal aspects so the category of the questions can be in a standard form. So that the system can be good and in innovative way. The main aim of the system is to predict the learning aspects and the basic handing technique based upon the result we can able to predict the strength of the student in the part of the academics. The content of the system should be in right and in loyal way so that can be reached and being promoted by everyone. There are nearly seven parts of section and the section can be subdivided into some categories. The sections are learning style, behavior, emotional, multiple intelligence, cognition ability, learning methods. These parts of section can able and helpful to predict the capability of the student. The outcomes are being stored as per once they interact with the questions. Among the all the answers they answered the sum of the valuable answer can be take into consideration for the evaluations. The evaluated result may shows the survivance of the student and the performance in their academics. The analytical may consist of various parts of parameter. The each parts of parameter can sub portions. The each sub portions contains minimum five questions. The student wants to understand it and respond according to it. The want to mention a tick mark which option is for the question according to him. The answer are been monitored and it gets stored in the data base. Before taking the analytical test the students want to mention the personal details which would helpful to identify the particular student analytical.

2. Literature Survey

Novak et.,al., proposed Supervised learning is the learning inspects technique which is fully based upon the machine learning concept. They can focus in the input which is provided to them

and the outcomes of the system. The system can be fully trained using the comparison test in which that they mainly concentrate in the data which is stored in the database. The input which is get processed and it get being compared with the data which is stored in the database individually. The data can be processed as an separate part of the system it can takes a minimum amount of time period. To solve the issues which is get raised at the time of learning technique several steps get followed. The major thing is to analyses the type of training structure is to be provided. Next step is to gather the training structure which is to make the right way of optimizing the input image. And the major thing is to calculate the provided input is matches the data in the training structure. In case of absence in the desired input the data storage path then it will does not produces a required output. After the completion of the training to the machine the data is to be get designed as of required form. The final stage of the output can be get tested to the executable stage with the terms of the training practice of the machine [1].

Litman et.,al., proposed system can be fully trained using the comparison test in which that they mainly concentrate in the data which is stored in the database. The input which is get processed and it get being compared with the data which is stored in the database individually. The data can be processed as an separate part of the system it can takes a minimum amount of time period. To solve the issues which is get raised at the time of learning technique several steps get followed. Such things of the varied level is to analyses the type of training structure is to be provided. The learning analysis can undergo the algorithm of bias changeable trademark. The main propagating part of the package is that various input can be given to the training set but nearly

all of them are best but in situation that the appropriate outcome is not determined because of the some of the input with same properties. In the input X which is get provided to the data set of the training machine. The some of the trouble get raised due to that of the same category of input [2].

Cummins et.,al., proposed to solve the particular part of the issue the bias changeable trade mark is used. The variance which is referred to the changes. The term variance may plays a role in the properties of the input which is get allocated to that of the training set. The another issue is that of the amount data which is get passed to the training set is of not fake. To detect the issue the data functionality is used to prevent these form of issues in the variable level. The data process can be used to make a comparison in each stage before the data gets meet the data set of the training path. After the detection of the data is of true the condition is being passed to the data storage path and the normal activity of the training set continued [3].

Agrawal, et.,al., proposed unsupervised learning is the process of finding the formerly existing's patterns in the data set. It is also known independent-organization. The data which is not get depend upon the others the data in the training structure. The newly existing data not much equal as that of the data in the old set form. The unsupervised learning is the one of the part of the machine learning technology. The learning technology can be predicted with the help of the performance of the training set gets being executed. They can always deals with the collection data in the set. The data in the collection is of different patterns. The patterns in the collection of data can posses various attributes. The attributes can be created by the way of processing the input data [4].

Poulos et.,al., proposed data can be done by the probability distribution in which $P(a|b)$ in which the b is provided as the input data based upon the probability convention. The input data which is get processed and it get being compared with the data which is stored in the database individually. The data can be processed as an separate part of the system it can takes a minimum amount of time period. To solve the issues which is get raised at the time of learning technique several steps get followed. The major thing is to analyses the type of training structure is to be provided. Next step is to gather the training structure which is to make the right way of optimizing the input image. And the major thing is to calculate the provided input is matches the data in the training structure. In case of absence in the desired input the data storage path then it will does not produces a required output. After the completion of the training to the machine the data is to be get designed as of required form. The particular part of the segmentation of the data patterns takes place in the collection of data [5].

Denker et.,al., proposed probability occurrence can be derived by the learning analytics such P means which is the major part is to solve the cluster issues in the data set patterns. The data which is not get depend upon the others the data in the training structure. The newly existing data not much equal as that of the data in the old set form. The unsupervised learning is the one of the part of the machine learning technology. The learning technology can be predicted with the help of the performance of the training set gets being executed. They can always deals with the collection data in the set. The data in the collection is of different patterns. The patterns in the collection of data can posses various attributes. The attributes can be created by the

way of processing the input data. It is also the study of the open network model which it get much adaptive and it get widely used in the segmentation process. The process can be a model of the open network which it being used in the characterized of the training set. All among the open network the adaptive perspective model is used in the data segmentation and the processing of the data in various form of the data patterns [6].

Padhy et.,al., proposed SVM is the superior of the learning analytical part which is used in the algorithm part of the learning mechanism. The machine can support the algorithm issues in the affordable part of the data set in the data base. The data can be contaminated in the data section of the vector machine. The data segmentation can be done in each and various part of the comparisons of the data analytic technique. The grouping of data can be have of independent properties the conical appearance of the data does not occurs. The vector algorithm reduces the mismatches of the data in the training set. In the vector part the data can be viewed as the A point and we want to find the data point can be separated to that of the A-1 part. The separation of data in the vector dimensions can be done at the point of the data segments. The classification of the data in the part of the data input is done at the data comparison. The can be compared at the point of the data processing to the input of the training setup. The togetherness of the data in the cluster management can be differ from structure and that of the characteristics properties [7].

Gehringer et.,al., proposed vector characterization done by rough margin and the smooth margin. The rough margin shows the we consider the two data set which is get separated by the certain limit and the separation distance is small when compared to that of the normal

separation. The vector which is surrounded by a margin. The soft margin is that the data separation is done at minimal extend. The data can be separated at the path of the vector can be maintained. The machine can support the algorithm issues in the affordable part of the data set in the data base. The data can be contaminated in the data section of the vector machine. The data segmentation can be done in each and various part of the comparisons of the data analytic technique. The grouping of data can be have of independent properties the conical appearance of the data does not occurs. The vector algorithm reduces the mismatches of the data in the training set. They consider two planes that can be separated at the various distance from the point of the data set the point at which the data gets located is data location path. The path can be varied by the various set of parameter which is being done in the machine training path. The path can be changed that based upon the separation of the data [8].

Gauci et.,al., proposed smart regret is the probability of occurrence of the particular condition existing. The can determined the incoming and the outgoing of data to the training set. The calculation set of predominant of data in the section of the data base. The statistical of data analytical can be done in the form probability condition. The value can be of either 1 or 0. The value can be predicted either the data can be propagates to the data set is consider as 1 otherwise it is consider as 0. The data accumulation can be minimized at the comparison stage of the data being present in the sets. It is the binary regression which can be varied to the greater extent. The data extent can be varied to the number of data comparison patterns. The data can be constructed to the varied number of algorithms used in the statically process [9].

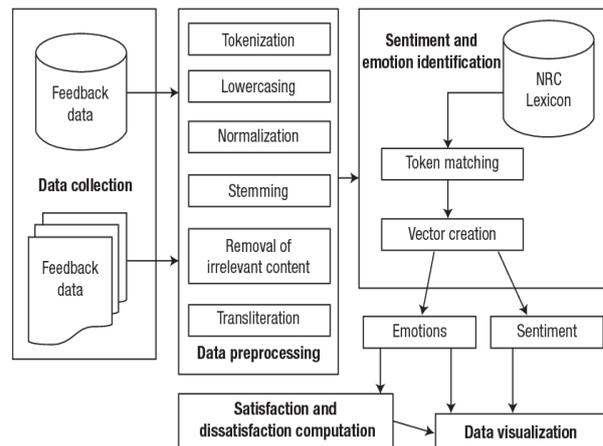
Br, Henning et.,al., proposed vector algorithm reduces the mismatches of the data in the training set. The data segmentation can be done in each and various part of the comparisons of the data analytic technique. The grouping of data can be have of independent properties the conical appearance of the data does not occurs. The separation of data and the plane is not happen inspite of that the binary operation can be takes place to avoid such latency of the data that can be get it into the learning inspect of data base. It also used in the ratio test of comparing the two sets of data. The data being stored in the storage path and the data which is get transmitting to the training set. The data can be trained in two ways the .The ways can be derived as odd and the even way path. The point at which the data can be connected to that of the training set structure path of the learning aspects [10].

3. Proposed Method of sentiment Analysis System to Improve Teaching and Learning

The learning analysis can predict the emotional, learning skills, intelligence at the initial stage of the student. This can be mainly performed in the students pursuing higher secondary because the student in the stage they can facing the lots of mental stress in the studies. The learning inspect shows how the student react towards other, they shows the how much they can able to tackle the exam stress. The learning inspect is one of the best method of predicting the mentally part of the student. The analytic test consist of various part each part there is subdivision is provided under this the some of the questions are constructed which can test the skills and emotions. The interact answers are get stored in the database They can show that how they can get interact with them. The outcomes are get allocated in the data path. The certain questions in the data path can be much enough to predict the capability of the student.

By getting the outcome of the individual student from the data pack we can provide some counselling to the student based upon the mental capability and to motivate them in improving skills in the studies.

4. Architecture Diagram



Architecture diagram contains three main parts which are data collection, data preprocessing and sentiment and emotion identification which will be eventually classified into two categories which are emotions, sentiment. Finally satisfaction and dissatisfaction will be calculated and data will be visualized.

References

- [1] Novak, Jeremy, and Michael Cowling. "The implementation of social networking as a tool for improving student participation in the classroom." (2011).
- [2] Litman, Diane J., and Kate Forbes-Riley. "Predicting student emotions in computer-human tutoring dialogues." Proceedings of the 42nd Annual Meeting on Association for Computational Linguistics. Association for Computational Linguistics, 2004.
- [3] Cummins, Stephen, Liz Burd, and

- Andrew Hatch. "Using Feedback Tags and Sentiment Analysis to Generate Sharable Learning Resources Investigating Automated Sentiment Analysis of Feedback Tags in a Programming Course." *Advanced Learning Technologies (ICALT)*, 2010 IEEE 10th International Conference on. IEEE, 2010.
- [4] Agrawal, Rakesh, et al. "Data mining for improving textbooks." *ACM SIGKDD Explorations Newsletter* 13.2 (2012): 7-19.
- [5] Poulos, Ann, and Mary Jane Mahony. "Effectiveness of feedback: the students perspective." *Assessment and Evaluation in Higher Education* 33.2 (2008): 143-154.
- [6] Denker, Katherine J. "Student Response Systems and Facilitating the Large Lecture Basic Communication Course: Assessing Engagement and Learning." *Communication Teacher* 27.1 (2013).
- [7] Padhy, Neelamadhab, Pragnyaban Mishra, and Rasmita Panigrahi. "The Survey of Data Mining Applications And Feature Scope." *International Journal of Computer Science* (2012).
- [8] Gehringer, Edward F. "Ac 2012-4769: Applications For Supporting Collaboration In The Classroom." (2012).
- [9] Gauci, Sally A., et al. "Promoting student-centered active learning in lectures with a personal response system." *Advances in Physiology Education* 33.1 (2009): 60-71.
- [10] Br, Henning, Erik Tews, and Guido Rling. "Improving feedback and classroom interaction using mobile phones." *Proceedings of Mobile Learning* (2005): 55-62.