Implementing Mining in Educational Digitization

Vamsi Naidu Pothana, Sriram Konduru, Venkata Rao Junju,

Abstract: This paper projects the aspects and criteria in which the present day education system is running in our country and what are the changeovers we had from the past system with also the benevolent changes that could aid for a more sophisticated education system for the future generations of the country. Also we will discuss certain aspects which will enhance the student to become a more efficient student if the terms are met and followed by the institutions. The system has gone under a drastic change in the recent years and is changing minute to minute in this informatics world. The world in which information is everything education may become the only means for the future generations to survive in this world.

Keywords: Education system, Change, information, institutions.

I.INTRODUCTION

The education has the only meaning that is the adaptability to the surroundings. Adapting to the people around you with your skill and knowledge is what education is meant for. Education is not only a means to earn money but money is paid for the work done based on your education and skill. The education system in India is quite lenient for the students. The education for all campaign started in India many years ago by which many of the poor and unprivileged children are getting education for free.

From the olden days India is one of the major contributors in the world of education. As everyone knows even Albert Einstein extended his applause to India for being the most important delegate in the shaping of the education by various inventions and discoveries made in the subjects and fields with very sustainable and well versed system for the world. From the past times there is a drastic change in regards to the education provided and also the availability of education for the commoners in a country. Various reforms led the way for the educational system of India to obtain this success in the world.

II.RELATED WORK

Earlier than the age of colonization there existed no relevant academic system in India.If a person desired to study, then he voluntarily joined a teacher, who initiated his disciples generally into the secrets and techniques of Sanskrit, mathematics and metaphysics.

The British added modern-day college system into the country inside the 1830s, due to which the close courting among master and disciple ceased to exist, and the curriculum featured typically natural sciences. Within the course of the 1920s, the British created numerous vital establishments to supervise schooling inside the numerous states, the relevance of which accelerated after India received independence. In keeping with "Article 45 of the constitution of the Republic of India, education is obligatory for kids aged 6-14, but the government encountered difficulties in attempting to implement the item in sure regions even on the quit of the 20th century". On the outset, overseeing schooling becomes considered every kingdom's home affair. For that reason, India's government had little affected over questions concerning education. This situation only modified in 1976, when, after an amendment to the constitution, training came below the countrywide authorities' purview. Within the Eighties many legislative acts have been handed to implement obligatory training guidelines and to increase elementary training. In this spirit the program "countrywide coverage regarding schooling" changed into exceeded, a modified model of which continues to be treated as a concern undertaking with the aid of the Modi-government. Girl's participation in schooling became minimum at the start; however by way of 2001, with government support, more than 50% of all women could examine and write, which can be seen as an impressive leap forward in assessment to 15% inside the Nineteen Sixties.

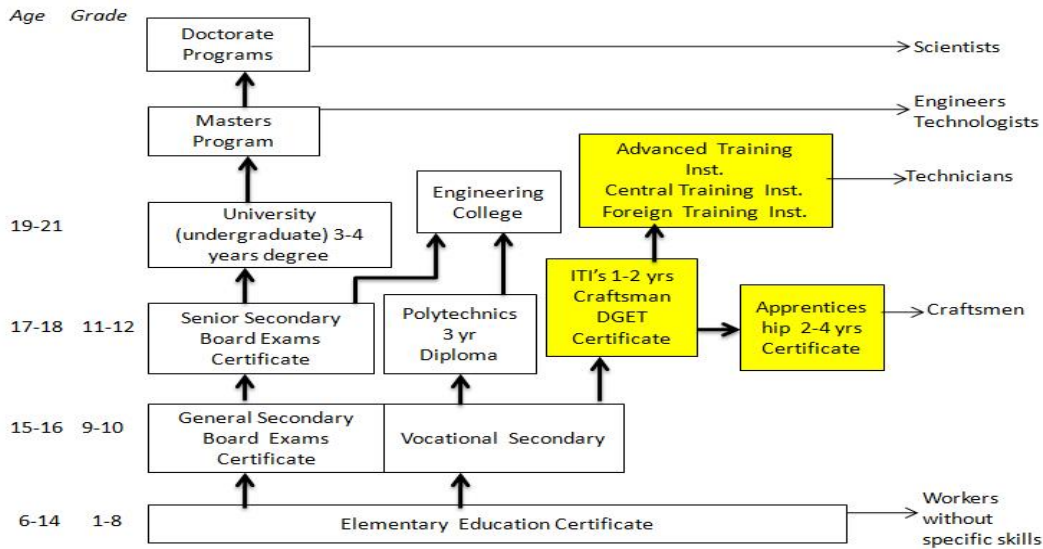# Implementing Mining in Educational Digitization

Fig 1: Education system

III.FLOW OF EDUCATION

The education system is designed in goal that the individual will be at his best when he/she faces a professional or personnel issue can handle it at ease with the abilities they posses. The system first starts with the knowledge we possess within us. The right implementation of the knowledge we have leads to good outcomes but the negative usage of the knowledge leads to drastic effects that can cause disasters. The comprehension of the knowledge in a right way with hard work can make miracles happen. Next is the application of the knowledge what we have in ourselves. The analysis of what we applied is necessary to be done for the self improvement. After the analysis the results are synthesized such that we may not leave out the errors and find where we have gone wrong and what was it in which our assumption was wrong. The last phase is the evaluation for which self evaluation and self assessment are the best cases for the evaluation of the progress.
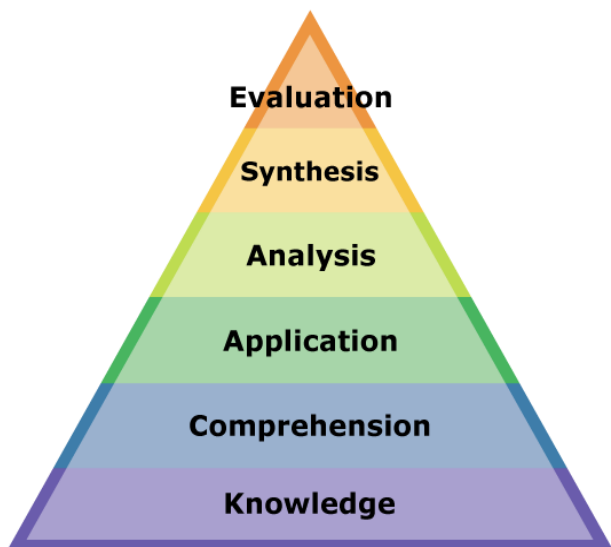
FLOW OF INSTITUTIONS:

The government look afters the educational sector as a child and restricts it from any bad and uncivilized activities. Also the authorization of any institution is very difficult and fair procedure by national committee such that everyone will have an equal go in the matters of education. It's a system made to eliminate the study disasters and make our country a well versed literate country with 100% literacy rate. There are national institutes and below them are the deemed universities and some government universities. With affiliation to the universities there are some autonomous and some aided and unaided college. There are also aided colleges which have unaided courses within them. There are also unaided and self-financial institutions also. All the institutions strive to maintain quality as there will be strict barring of the colleges if they have missed the quality of the education for the students.
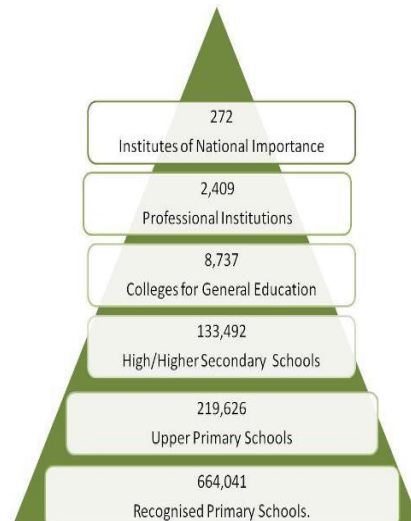

Fig 2: Educational implementation

Fig 3: Institutional analysis

ADVANTAGES OF EDUCATIONAL SYSTEM:

We have a transparent educational system which gives an equal right to education for every person born in India. Irrespective of caste/gender/race/group/party anyone can study in any college if he qualifies the entrance test or the eligibility criteria which is same for everyone. Government has implemented many schemes for the enrolment of students and also extended financial help to the students of backward communities as a help and to the merit people as a token of appreciation. Government has given ample resources for the students to support education like the NPTEL for the undergraduate student skill growth. After the changes of digitalization taking place the government has started a national digital library and many world top institutes are providing digital courses for the skill development.

DEMERITS:

Many institutes are more concentrating on the academic percentages than the practical knowledge which is increasing the skill gap. This way of education is bringing 90% of the unemployment. However the skill gap reduction counter measures are started by the government by the implementation of state and central skill development organizations. The students are less motivates and are not sincere and serious like the olden days. Also the corporates have made the education a high time profitable business rather than a non-profitable work. The institutes are leaving out the intelligence, discipline and creativity which in turn inflicts on the statistics that 80% (approx.) of the criminals are educated (up to certain extent).
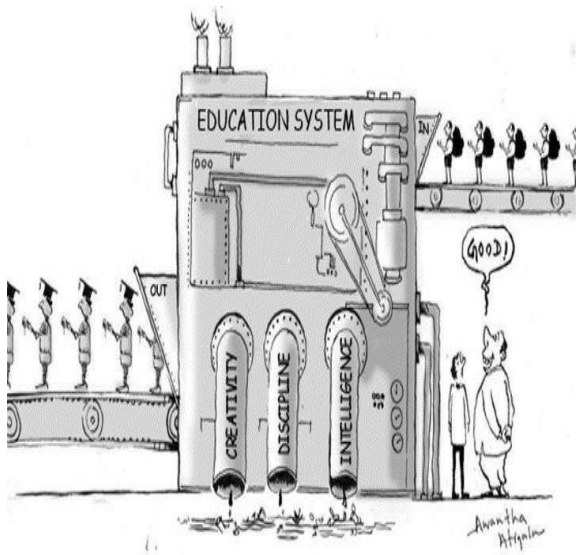

Fig 4: Cartoon on present education system

IV.COMPARISION

The education has made a rapid progress when compared with the past. Only the privileged caste people are able to study in the past but now right to education is given and everyone can study. Early study was a mere reflection of teacher's dedication with the combined efforts of the seriousness and sincerity in the students but now days the dedication and sincerity are comparatively very less.

	PAST	PRESENT
EQUITY	NO	YES
AVAILABILITY	NO	YES
STUDENT SERIOUSNESS	YES	NO
TEACHER DEDICATION	YES	NO
RESOURCES	NO	YES

Table 1: past vs present system

ADVANCEMENTS AND CRITERIA:

With the increasing digital audience the digital world is shaping the world towards rapid growth of digital courses and is depriving the one to one interaction. The testing and evaluations are also gone online because of the advancements in artificial intelligence and robotics incorporated. The curricular aspects are given more importance and also the research and development is given a step ahead of every aspect for the betterment of the future services. The teaching and the institution environment are also given much priority for judging the institute. Every facility and aspect is given equal importance for the uplifting and enhancement of the educational facilities.

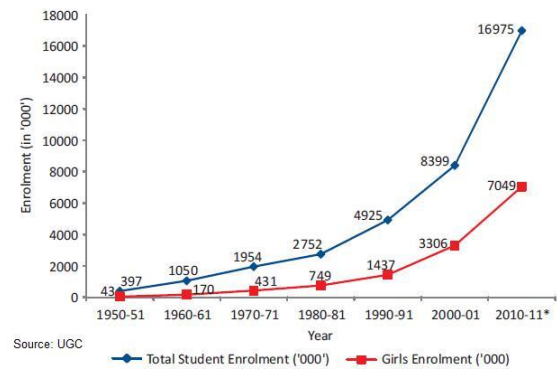
Fig 5: enrollment graph of students

V.DATAMINING IN EDUCATION

In present day"s Education system, a students" execution is controlled by the inward evaluation and end semester examination. The inward appraisal is done by the educator dependent on students" execution in instructive exercises, for example, class test, workshop, assignments, general capability, participation and lab work.

Implementing Mining in Educational Digitization

The end semester examination is one that is scored by the understudy in semester examination. Every understudy needs to motivate least checks to pass a semester in inside just as end semester examination.

Phases of mining:

1. Data Preparations
2. Data selection and transformation
3. Decision Tree (ID3 Decision Tree)
4. Measuring Impurity
5. Splitting Criteria
6. The ID3Algoritm implementation

Algorithm:

```
Create a root node for the tree
If all examples are positive, Return the single-node
tree Root, with label = +.
If all examples are negative, Return the single-node
tree Root, with label = -.
If number of predicting attributes is empty, then
Return the single node tree Root, with label = most
common value of the target attribute in the examples.
Otherwise Begin
   o   A = The Attribute that best classifies
       examples.
   o   Decision Tree attribute for Root = A.
   o   For each possible value, vi, of A,
       ▪   Add a new tree branch below Root,
           corresponding to the test A = vi.
       ▪   Let Examples(vi) be the subset of
           examples that have the value vi for
           A
       ▪   If Examples(vi) is empty
           ▪   Then below this new
               branch add a leaf node
               with label = most common
               target value in the
               examples
       ▪   Else below this new branch add the
           subtree ID3 (Examples(vi),
           Target_Attribute, Attributes – {A})
End
Return Root
```

VI.EVALUATION

Take attendance, assessment details and other valid parameters which are related for a student to do the required operations and predict the estimations of every individual in a likewise manner. Based on these parameters we can suggest the student in which subjects he is lacking and in which subjects he is good and in which he has to be highly attentive. With all these estimations it's easy to plan for the better and best possible outcomes for every individual within less stipulated time environment.

A CHANGE FOR BETTERMENT:

The better instruction and phase to phase testing with no compromise in the skill. Going online with the examinations can reduce the chance for cheating and other malpractices. The incorporation of digital should be done well as our country still follows the old methodology of chalk and talk on a board for the teaching. The research and development divisions must be employed in every institute to improve themselves by them itself.

VII.CONCLUSION

Our educational system as the third highest in the world stand top of many other nations but the growth is still going on and the road to reach the next phase. As nothing is perfect in the creation of god we have to improve ourselves and the same goes with any system. The enhancements and thorough iterations and implementations will be the trademark for the sustainable growth and development of the system. The introduction of mining and big data into the education system will greatly increase the scope of development of every student from chip level which will be highly beneficial for both the country and his self also.

REFERENCES

1. The case against education: Why the education system is a waste of time and money-B Caplan – 2018
2. Research performance and teaching quality in the Spanish higher education system: Evidence from a medium-sized university- J Artés, F Pedraja-Chaparro… - Research Policy, 2017
3. Impact of Socio Economic Trends on Students in Quality Education System- R Billaiya, S Malaiya, KS Parihar - International Journal of Social …, 2017
4. E. Duflo, R. Hanna, S. RyanIncentives work: getting teachers to come to school-Am. Econ. Rev., 102 (4) (2012), pp. 1241-1278
5. P. Anand, A. Mizala, A. RepettoUsing school scholarships to estimate the effects of private education on the academic achievement of low-income students in Chile-Econ. Educ. Rev., 28 (2009), pp. 370-381
6. "The case for curriculum reform in Australian information management & library and information science education: Part 1., Technology and digitization as drivers" by Hairong Yu and Mari Davis, Information Management Research Group, School of Information Systems, Technology and Management, The University of New South Wales, Sydney NSW 2052, Australia
7. https://www.wikipedia.com
8. https://www.google.co.in

AUTHORS PROFILE

Vamsi Naidu Pothana, currently working as an Assistant Professor in the Department of Computer Science and Engineering in Lakireddy Bali Reddy College of Engineering, Mylavaram, Krishna District, Andhra Pradesh, India. My research interests are mainly focused on Education Technologies, especially about "Online based blended Teaching-Learning process" that effectively uses current network infrastructure perfectly and makes the process of learning easy to all sort of people around the globe. In addition to the above, my research interests goes on Data Analytics, IoT and Artificial Intelligence.

Sriram Konduru, currently a student of computer science and engineering in Lakireddy Bali Reddy College of Engineering, Mylavaram, Krishna District, Andhra Pradesh. I am an active learning who likes to know more about things irrespective of domains and subject restrictions. I am always eager to compete in a healthy competitive environment. I look forward to sharpen my skills and learn much more to attain even more knowledge for which I'm greedy in a positive sense. I look forward in meeting new people as I can and will learn something from each and every person I meet. Finally I want all this knowledge to be useful for the betterment of the society and my surroundings. I like my work to be useful for mankind and benefit in the betterment of our daily life.

Venkata Rao Junju, currently a student of Computer Science and Engineering in Lakireddy Bali Reddy College of Engineering, Mylavaram, Krishna District, Andhra Pradesh, India. I am an enthusiast of learning new things and applying that knowledge for solving real-world problems. I am a proud tech-savvy, who is keen about all the tech stuff happening around the globe. I am not like a nerd but socially conscious about everything happens around me and take the decisions wisely and politely without hurting others opinions.