

# A Survey on Awareness Regarding The Education Industry

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## ABSTRACT

Data mining is needed to extract valuable information from seemingly meaningless data. Data mining techniques have revolutionized the way we interpret data and is becoming the backbone of every major decision support system in a MIS. Recent advances in IT Technologies and increasing access to the internet with the help of mobile computing devices has increased general awareness to a large extent. In this paper, we discuss the various applications of data mining and need for knowledge discovery, required for understanding and awareness of people regarding the various aspects of education industry.

**Keywords:-** Data Mining, Knowledge Discovery, Management Information System, Education Industry.

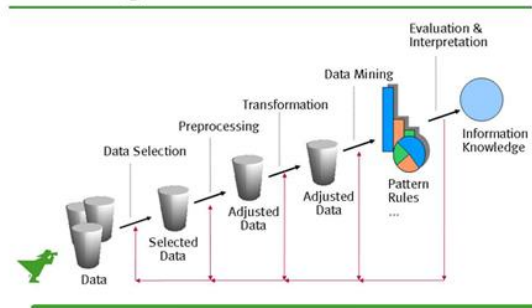
## I. INTRODUCTION

Data Mining, the removal of hidden prognostic information from large databases, is an effective new technology with great possibility which helps companies target on the most necessary information in their data warehouses. Data mining tools forecast future trends and actions, allowing businesses to make dedicated, knowledge-driven decisions. The mechanized, recommended analyses offered by data mining move beyond the analyses of past events provided by reflective tools exemplary of decision support systems. Data mining tools can explain business questions that consistently took a lot of time to resolve.

### A. Knowledge Discovery Process

The term Knowledge Discovery in Databases, or KDD for short, refers to the wide process of finding knowledge in data, and stress upon the "high-level" application of particular data mining methods. It is of concern to researchers in machine learning, pattern recognition, databases, statistics, artificial intelligence, knowledge gain for expert systems, and data visualization. The consolidating goal of the KDD process is to identify knowledge from data in the context of large databases.

### Data Mining Model



### B. The Knowledge Discovery Process Steps:

- 1) Identify business problem
- 2) Data mining
- 3) Action
- 4) Evaluation and measurement
- 5) Deployment and integration into businesses processes

### C. Techniques of Data Mining:

There are several major data mining techniques have been developed and used in data mining projects recently including association, classification, clustering, prediction and sequential patterns.

- 1) **Association:** Association is one of the best known data mining method. In association, a pattern is invented

based on a connection of a particular item on other items in the same undertaking. For example, the association technique is used in market basket analysis to identify what products that customers often purchase together. Based on this data businesses can have equivalent marketing drive to sell more products to earn more profit.

2) **Classification:** Classification is a classic data mining technique based on machine research. Basically classification is used to allocate each item in a set of data into one of described set of groups or classes. Classification method makes use of mathematical approaches such as linear programming, neural network, statistics, and decision trees. In classification, we make the software that learns to classify the data items into groups. For example, we apply classification in application that provides all past history of employees who left the company, conclude which current employees are likely to leave in the future. In this case, we separate the employee's records into two groups that are "leave" and "stay". And then we can ask our data mining software to classify the employees into each group.

3) **Clustering:** Clustering is a data mining technique that makes essential or useful cluster of objects that have identical characteristic using automatic technique. Clustering technique also defines the classes and put objects in them, while in classification, the objects are assigned into predefined classes. To make the perception clearer, we can take library as an example. In a library, books have a wide extent of topics available. The question is how to keep those books in a way that readers can take several books in a particular topic without any problem. By using clustering technique, we can keep books that have some kind of sameness in one cluster or one shelf and mark it with a meaningful name. If readers want to fetch books in a topic, he or she would only prefer that shelf instead of looking the whole in the entire library. ➤

4) **Prediction:** The prediction as it name implied is one of a data mining techniques that determines relationship between independent variables and relationship between dependent and independent variables. ➤ For instance, prediction analysis technique can be used in sale to forecast profit for the future if we consider sale is an independent variable, profit could be a dependent variable. Then based on the previous sale and profit data, we can draw a fitted backsliding curve that is used for profit prediction. ➤

5) **Sequential Patterns:** Sequential patterns analysis is one of data mining technique that looks for to discover similar patterns in data transaction over a business span. The uncover patterns are used for further business analysis to identify relationships among data.

#### D. Data Mining Applications

Data mining is a process that examines the large amount of data to find the new and hidden information that promotes business efficiency. Various industries have been choosing data mining to their mission-critical business processes to gain competitive advantages and help business grows. This tutorial explains some data mining applications in health care and insurance, transportation, sale/marketing, banking/finance and medicine.

The growth of the insurance industry completely depends on the ability of modifying data into the knowledge, information or understanding about customers, competitors and its markets.

##### Data Mining Applications in Medicine

- Data mining enables to distinguish activities of patients to see coming office visits.
- Data mining help recognize the patterns of successful medical analysis for different illnesses.

## II. MANAGEMENT INFORMATION SYSTEM

The Management Information System (MIS) is an approach of the last decade or two. It has been described in a number of ways. It is also known as the Decision System, Information System, and the Computer- based information System. Management information system, or MIS, refers to a computer-based system that provides managers with the tools to organize evaluate and efficiently manage departments within an organization. In order to provide past, present and future information, a management information system can include software that helps in decision making, data resources such as decision support systems, databases, the hardware assets of a system, people management and project management applications, and any computerized methods that helps the department to run smoothly. MIS IS -:

#### Information

Data that has been put into an essential and beneficial context. Usually to help make a decision.

#### Management Information System

A combo of computers and people that is used to provide information to assist in making decisions and directing a firm.

#### Information Technology (IT)

#### A. Role of Management Information System

The role of the MIS in an organization can be related to the role of heart in the body. The information is the blood and MIS is the heart. The MIS performs exactly the same role in the organization. The system assures that a suitable data is gathered from the various sources, processed, and

then sent further to all the required destinations. The system is supposed to accomplish the information needs of an individual, a group of individuals, the management handlers: the top management and the managers. The MIS benefits the clerical personnel in the transaction processing and answers their doubts on the data belonging to the transaction, the position of a specific record and citations on a range of documents.

### **III. GOVERNMENT VERSUS PRIVATE EDUCATION INDUSTRY**

The ability of any society to work and prosper is the result of many factors, the most important of which are education, food, and health. Education is one of the most significant tools that devote directly to the achievement of growth and development for a nation, to the accomplishment of new generations, and to the abilities and skills of a country's human resources. It also assists the individual with social needs at different stages in their lifetime.

The most important phase of education in any country is the primary stage. Alongside other things related to this stage, it focuses not just on formal education, but on bringing up a new generation, and on building knowledge in children and the ability to think for themselves. In addition, this stage involves building knowledge through scientific and educational curricula that is the basis for moving forward and will direct and develop the thoughts, the skills, and the abilities of pupils. It also qualifies them to reach subsequent educational levels based on curricula related to the primary stage. For these reasons, countries pay careful attention to this stage of education and provide all the pre-requisites, from institutional and administrative aspects, to educational management, curricula, and teachers. They do so because this is a crucial time in a child's schooling. It is observed that many countries have an educational management system that consists of two sectors that contribute to the provision of education. Most countries depend on contributions from the private sector to provide some educational services, especially in terms of the primary level.

While the focus of education policy in developing countries such as India has largely centered on increasing the resource base and the number of government-run schools, the role of private fee-charging schools in the primary education sector has not been appreciated as much by academics and policy makers. However, as several recent papers point out, private fee-charging schools increasingly cater to a substantial fraction of the primary-school going population in India. The increasing prevalence of private schools is due to the poor performance of public schools, it has not been easy to systematically disentangle the extent to which the creation

of private schools is reflecting demand due to poor public school performance as opposed to rising incomes. Private-school teacher salaries in rural India are typically *less than one-fifth* the salary of regular public-school teachers (and are often as low as *one-tenth* as much). This enables the private schools to hire more teachers, have much lower pupil-teacher ratios, and reduce multi-grade teaching.

### **III. LITERATURE SURVEY**

A survey helps the researcher to build background on the survey problem. This type of research is required when the research problem is new or when the information available about the problem is limited.

2014. Teaching and Learning: Achieving Quality for All. Education for All Global Monitoring Report 2013/4. Paris: UNESCO.

Assawasirisilp, Dhriwit. 2014. "Results of Data Analysis of Teachers' Questionnaires on Gender Equality in School – Rockefeller Foundation Project." Bangkok, Thailand: NIDA Interim Report.

This has had consequences for education. One example is that the Georgia Dream government quickly stopped using the private book publishers. Now the state publishes the last set of textbooks they got from the private publishers and distributes them free to ALL children, vs. Saakashvili's policy of providing free books only to children below the poverty line. The publishers' last set of books was approved in 2010-11, under Pres. Saakashvili (Janashia 2014).

This was to obtain feedback on the problem. Black and Champion (2002) indicated that the survey approach is aimed at exploring the conditions surrounding a phenomenon and revealing its aspects and dimensions. Eral (2003) indicated that a survey helps the researcher to build background on the survey problem.

Black and Champion (2002) indicated that the survey approach is aimed at exploring the conditions surrounding a phenomenon and revealing its aspects and dimensions. Since teaching methods are an integrated process and the result of a number of variables and other related factors (Xin et al., 2008; Mevarech & Kramarski, 1997; Stecher et al., 2006), such variables associated with the teaching process are concentrated in the teachers' skills, the teachers' perception of students' achievement and the educational and teaching environment.

According to household survey data, private schooling participation in rural India has grown from 10% in 1993 to 23 percent of the student population in 2007 (King don, 2007); this is much higher than in most developed countries. A variable that has been used as an instrument

for private school attendance in an achievement study on Nepal is „the number of private schools available in the child’s area of residence” (Sharma, 2009). A school atmosphere is the one in which the educational process is achieved (Eason et al., 2009).

While reliable annual data does not exist for urban India, the private school share in urban India was estimated at 58% in 2005 and is likely to be considerably higher in 2013

#### **IV. CONCLUSION**

Data mining is a vital part of knowledge discovery process that examines enormous set of data and gives us hidden, unknown and useful information. It is helpful to various sectors like marketing, finance, manufacturing, government.

Education is one of the most significant tools that devote directly to the achievement of growth and development for a nation. In future large number of parameters and different types of techniques of data mining can be used to help out Education Industry as well.

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#### **REFERENCES**

[1] Abhijeet Singh (2014) ‘Private School Effects in Urban and Rural India: Panel Estimates at Primary and Secondary School Ages’, *Journal of Development Economics*, early online publication DOI: 10.1016/j.jdeveco.2014.10.004

[2] Aggarwal, Y. (2000), *Government and private partnership in primary education in India: a study of unrecognized schools in Haryana*, New Delhi (New Delhi, National Institute of Educational Planning and Administration).

[3] Assawasirisilp, Dhriwit. 2014. “Results of Data Analysis of Teachers’ Questionnaires on Gender Equality in School – Rockefeller Foundation Project.” Bangkok, Thailand: NIDA Interim Report.

[4] Alfadala, Saleh Ali (2010) "Classroom pedagogical skills" Jordan: Amman, Dar Osama for Publishing & Distribution

[5] Berlinski, S. & Galiani, S. (2007) "The effect of a large expansion of pre-primary school facilities preschool attendance and maternal employment" *Labour Economics*, V.14, N.3, June

[6] Birgin, O. & Baki, A. (2009) "An investigation of primary school teachers' proficiency perceptions about measurement and assessment methods: the case of Turkey" *Procedia-Social and Behavioral Sciences*, V.1, N.1

[7] Desai, S., Dubey, A., Vanneman, R. & Banjeri, R. (2008) *Private Schooling in India: A New Educational Landscape*. Brookings-NCAER India Policy Forum

[8] Muralidharan, Karthik and Michael Kremer (2006), *Government and Private Schools in Rural India*, Manuscript, forthcoming in *School Choice International*, edited by Paul Peterson and Rajashri Chakrabarti

[9] Rivkin, Steven, Hanushek, Eric and John Kain (2005), *Teachers, Schools and Academic Achievement*. *Econometrica*, Vol. 73 (2).

[10] Saitis, C. & Saiti, A. (2004) "School libraries in Greece : A comparative study of public primary schools in rural and urban areas" *Library & Information Science Research*, V.26, N.2

[11] Singh R, Sarkar S (2012) *Teaching quality counts: how student outcomes relate to quality of teaching in private and public schools in India*. Oxford: University of Oxford. Young Lives Working Paper 91.

[12] Sucharita V (2013) *Negotiating between family, peers and school: understanding the world of government school and private school students*. Compare: A Journal of Comparative and International Education DOI:10.1080/03057925.2013.792671.

[13] Tooley, James and Paula Dixon (2003), *Private Schools for the Poor: A Case Study from India*, CFBT Research and Development.