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**E-GOVERNANCE USING DATAMINING TECHNIQUES WITH
REFERENCE TO TAMIL NADU STATE**



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ABSTRACT:

In the recent years computerization is place an important role in the day to day activities of citizens. Electronic-governance is the application developed by Tamil Nadu e-governance agencies and ELCOT. It is used to renovate the efficiency, effectiveness, transparency and accountability of informational and transactional interactions within the government, between government and government agencies of National level, State level, District level, Taluks level and rural areas, public and businesses, and to make the citizens authoritative in the course of access and use government information. State government activities have outsized quantity of

data. These kinds of data are make sure that to give an valuable use in smooth the progress of decision-making, a data mining is constructed over the chronological data. It allows much amount of questions for composite analysis on data to be tackled by decision-makers.

This Paper deals with the viewpoint and tackle of e-governance in Tamil Nadu using data mining in all the aspects of e-governance such as Government to Citizen (G2C) Citizen to Government (C2G) Government to government (G2G) Government to Business, Government to NGO (G2N). Different kinds of methodologies are used to raise the efficiency and effectiveness of E-governance. By using data mining classification technique, it is

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extraordinarily used to examine recent and chronological data finding the discovery of functional pattern and support decision tree strategies .On Line Analytical Processing (OLAP) is useful in solving complex problems and observations, analysis of online data.

KEYWORDS

E-governance, OLAP, Decision Tree, Data Mining, ICT, NeGP.

1. INTRODUCTION

Tamil Nadu is a forebear among the States in India in ICT enabled Governance, by successfully implementing various e-Governance projects of the State Government and also the schemes under the National e-Governance Plan (NeGP). Understand the fundamental requirements of the public. Government has planned to guarantee that all services are made available to the public in their area via common service delivery outlets with efficiency, transparency and reliability. E-governance is an upcoming field with a range of execution problems related to expertise, human resources, flexibility and change related issues. To increase the exploitation of IT infrastructure by governments emerged with the advent of World Wide Web. With the increase in Internet and mobile connections, the citizens are learning to exploit their new mode of access in wide variety. The model of e-governance focus on development of centralized government applications in the areas of defense, economic monitoring, planning and the inclusion of Information Technology to manage data intensive functions related to elections, census, tax administration etc. The National Informatics Center (NIC) plays an important role to attach all the district headquarters. The impulse of the government is to transfer from physical processes to web enabled processes, it leads to increase the efficiency and effectiveness in government and service delivery. While using the E-governance service deliverance through electronic means public can avail the subsequent benefits such as Enhance the competency of legislative activities, Lucidity and anticorruption in all government dealings, Give awareness to the citizens and give confidence to involve in the use of governance.

2. CAPACITY OF E-GOVERNANCE:

To enable the citizen transition from passive information access to active participation by

1. Informing the citizen
2. Representing the citizen
3. Encouraging the citizen to vote
4. Consulting the citizen
5. Involving the citizen

3. E-GOVERNMENT PROJECTS AT TAMIL NADU STATE:

(A) E-District Application for Backward Classes and Most Backward Classes

The District Backward Classes Welfare Offices in the pilot e-Districts have been computerized and the grant of Postmatric scholarships to Backward Classes and Most Backward Classes students

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online was launched in the first phase. The students by using their ID can verify the status of their application at any Common Service Centre. This transparent approach enables the department to know the number of scholarships granted / pending and also resolve any grievances of the students.

(B) E-District Application for AD&TW Department

The Postmatric Scholarship Schemes of AD&TW have been launched.

(C) E-District Application for Social Welfare Department covers:

- Poor women Marriage Assistance Scheme
- Widow Remarriage Assistance Scheme
- Marriage Assistance Scheme for Daughters of Poor Widows
- Marriage Assistance Scheme for Orphan Girls
- Inter-Caste Marriage Assistance Scheme
- Girl Child Protection Scheme

(D) E-District Application for Revenue Department

The on-line services of Revenue Department to be delivered through CSC and Internet have been implemented in Krishnagiri District. Citizen can apply for and receive digitally signed certificates without having to visit a Government Office.

- No Graduate in the family
- Destitute Woman Certificate
- Income Certificate
- Community Certificate
- Nativity Certificate

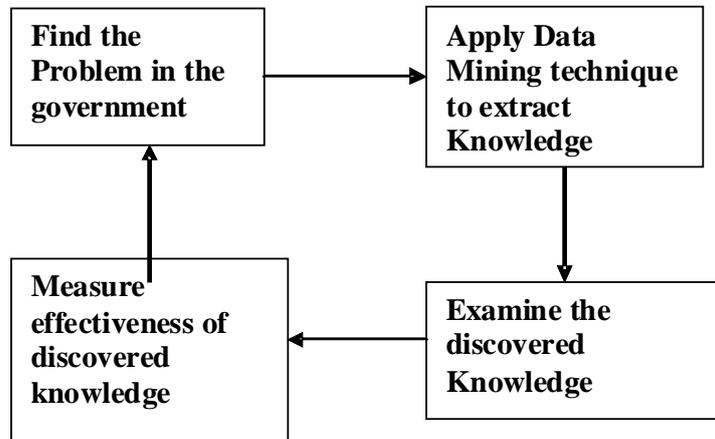
4. USAGE OF DATA MINING IN E-GOVERNANCE

Data Warehousing, Data Mining using Business Intelligence Software Statistical data plays an important role in setting up and progress. The Statistics unit of various Government Departments collects periodical data on daily, weekly, monthly, quarterly or yearly basis, from the Districts and Villages. This creates an enormous amount of data. A huge amount of data is also generated through surveys.

The main aim of the Government data warehousing project is to facilitate analysis of official statistical data through Business Intelligence Software tools, and expose this information to make it accessible from anywhere over the web, which would greatly benefit planners, researchers and businesses.

The Government of Tamil Nadu had issued orders for establishing a Data Warehouse which would distribute enhanced data, as well as tools, through the Tamil Nadu Government website, and would enable users to retrieve as well as evaluate the data.

The Government intends to take this forward and establish a framework under the Information Technology Department, using the latest complicated tools available for Data warehousing, data mining etc collectively called a Business Intelligence Software.



Data Mining Cycle

5. TAXONOMY OF DATA MINING TECHNIQUES

Rule Induction

Rule induction: is the process of extracting useful 'if then' rules from data based on statistical significance. A Rule based system constructs a set of if-then-rules. Knowledge represents has the form IF conditions THEN conclusion This kind of rule consists of two parts. The rule antecedent (the IF part) contains one or more conditions about value of predictor attributes where as the rule consequent (THEN part) contains a prediction about the value of a goal attribute. An accurate prediction of the value of a goal attribute will improve decision-making process. IF-THEN prediction rules are very popular in data mining; they represent discovered knowledge at a high level of abstraction. Rule Induction Method has the potential to use retrieved cases for predictions.

Decision tree

It is a knowledge representation structure consisting of nodes and branches organized in the form of a tree such that, every internal non-leaf node is labeled with values of the attributes. The branches coming out from an internal node are labeled with values of the attributes in that node. Every node is labeled with a class (a value of the attribute). Tree based models which include classification and regression trees, are the common implementation of induction modeling. Decision tree models are best suited for data mining. They are in expensive to construct, easy to interpret, easy to integrate with Database system and they have comparable or better accuracy in many applications. There are many Decision tree algorithms such as HUNTS algorithm, CART, ID3, and C4.5

6. CONCLUSION

A different variety of e-governance projects are successfully running in tamilnadu. The data mining techniques has been applied at the head-quarter and motivate the government officials to attend the training program about data mining technologies. This is the chance to utilize data mining technologies in the e-governance history and to make stronger e-Governance system. While we are setup one project and collect the expected results then apply to all other government sectors.

REFERENCES

1. "study finds federal gains in electronic government and citizen services ;challenges remain". Bearing point .2007-04-26
2. Satyanarayana j, E-government : The science of the possible .india: prentice hall, 2004.
3. Thorpe, Stephen. "Facilitating effective online participation in e-governmnet". E-government in newzealand.
4. SINGAL, Ryan (2007-08-06). " Analysis : new law gives government six months to turn internet and phone systems into permanent spying architecture. Wired.
5. "The pros and cons of e-governmnet" Economist .2008-02-14.
6. becker, Shirley A. ph.D .. " Bridging literacy, languages, and cultural divides to promote universal usability of e-government websites. 2009-03-03
7. sinrod, eric j. (2004-06-30) " A look at the pros and cons of e-government ". USA Today
8. Han J., Cai Y., Cercone N.: "Data-driven Discovery of Quantitative Rules in Relational Databases", IEEE Transactions on Knowledge and Data Engineering, Vol. 5, No. 1, 1993, pp. 29-40.
9. Kaufman L., Rousseeuw P. J.: "Finding Groups in Data: An Introduction to Cluster Analysis", John Wiley & Sons, 1990.
10. Mumick I. S., Quass D., Mumick B. S.: "Maintenance of Data Cubes and Summary Tables in a Warehouse", Proc. ACM SIGMOD Int. Conf. on Management of Data, 1997, pp. 100-111.
11. Ng R. T., Han J.: "Efficient and Effective Clustering Methods for Data Mining", Proc. 20th Int. Conf. on Very Large Data Bases, Santiago, Chile, 1994, pp. 144-155.
12. Ester M., Wittmann R.: "Incremental Generalization for Mining in a Data Warehousing Environment", Proc. 6th Int. Conf. on Extending Database Technology, Valencia, Spain, 1998, in: Lecture Notes in Computer Science, Vol. 1377, Springer, 1998, pp. 135-152.
13. Fayyad U., Piatetsky-Shapiro G., and Smyth P.: "Knowledge Discovery and Data Mining: Towards a Unifying Framework", Proc. 2nd Int. Conf. on Knowledge Discovery and Data Mining, Portland, OR, 1996, pp. 82-88.
14. Gueting R. H.: "An Introduction to Spatial Database Systems", The VLDB Journal, Vol. 3, No. 4, October 1994, pp. 357-399.

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