To Classify the Orphans and their Survival Conditions using Segmentation Technique

Amandeep Singh
Research Scholar, Department of CSE
RIMT-IET
Punjab Technical University, Jalandhar

Abhilash Sharma
Department of CSE
RIMT-IET
Punjab Technical University, Jalandhar

Abstract: An orphan can be defined as a child who lost one or both parents or who has lost both parent or whose parents are dead or have abandoned them permanently. Orphans are desperate to survive and as a result sometimes live dangerous lifestyles as street Orphans, beggars, delinquents, or-- child prostitutes. In orphanage Orphans stay here in the most loving and caring atmosphere, they are here till they become independent & responsible. In an orphanage where the staffing structure is modeled after a traditional family, Caretakers and directors act as parents with specific roles and daily routines. Orphans pickup on the commitment and responsibility that caretakers feel as "parents" to the and much more meaningful relationships develop. These Orphans need and have a right to protection and care, governments have an obligation under law to respond. The number of Orphans in institutional care around the world is difficult to determine due to inadequate monitoring by governments. The unfortunate fact is that many governments, particularly those that lack adequate resources, do not know how many orphanages exist within their borders, much less the number of Orphans within them. Based on extrapolations from limited existing data, UNICEF estimates that at least two million Orphans are in orphanages around the world, acknowledging that this is probably a significant underestimate. Although governments generally have policies that require organizations to seek authorization to establish residential care for Orphans and to register such facilities, privately run Orphans' institutions have been allowed to proliferate. In many countries, local or international organizations have been able to open and operate such facilities with little or no government oversight. Care for is provided in a number of capacities including being taken in by extended family, adoption, look after, Orphan's home, and institutional care. If orphans are not living on the streets, then they are either with a family member who has the means to support them, or in an institution operated by a community based organization, local government, or a charitable institution. Orphanage provides to free housing, education, books, medical care, and food. The privileged of this school value a holistic developmental approach and focus on a healthy development of mind, body, and soul. To meet this goal Orphans are given the opportunity to pursue extracurricular passions in sports, music, dance, and art. Health needs of Orphans include physical, mental, and emotional concerns. These needs present large expenses which must be met in order to maintain the health of the Orphans.Orphans's homes use a variety of strategies and methods to care for health needs of Orphans. Sometimes orphans facing Issues with mental health can stem not just from the Orphans's trauma of losing their parents and living a difficult life, but also from orphanage conditions

I. INTRODUCTION

Data Mining, *the extraction of hidden predictive information from large databases*, is a powerful new technology with great potential to help companies focus on the most important information in their data warehouses. Data mining tools predict future trends and behaviors, allowing businesses to make proactive, knowledge-driven decisions. The automated, prospective analyses offered by data mining move beyond the analyses of past events provided by retrospective tools typical of decision support systems. Data mining tools can answer business questions that traditionally were too time consuming to resolve. They scour databases for hidden patterns, finding predictive information that experts may miss because it lies outside their expectations.

Data, Information, and Knowledge:

Data are any facts, numbers, or text that can be processed by a computer. Today, organizations are accumulating vast and growing amounts of data in different formats and different databases. This includes:

- Operational or transactional data such as, sales, cost, inventory, payroll, and accounting

- Nonoperational data, such as industry sales, forecast data, and macro economic data

- Meta Data - data about the data itself, such as logical database design or data dictionary definitions

Information

The patterns, associations, or relationships among all this *data* can provide *information*. For example, analysis of retail point of sale transaction data can yield information on which products are selling and when.
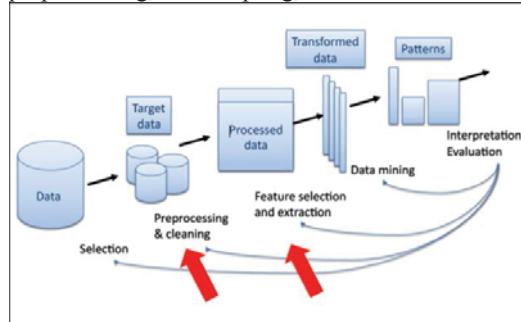
Knowledge

Information can be converted into *knowledge* about historical patterns and future trends. For example, summary information on retail supermarket sales can be analyzed in light of promotional efforts to provide knowledge of consumer buying behavior. Thus, a manufacturer or retailer could determine which items are most susceptible to promotional efforts.

Knowledge Discovery Process

The term Knowledge Discovery in Databases, or KDD for short, refers to the broad process of finding knowledge in data, and emphasizes the "high-level" application of particular data mining methods. It is of interest to researchers in machine learning, pattern recognition, databases, statistics, artificial intelligence, knowledge acquisition for expert systems, and data visualization.
The unifying goal of the KDD process is to extract knowledge from data in the context of large databases.

It does this by using data mining methods (algorithms) to extract (identify) what is deemed knowledge, according to the specifications of measures and thresholds, using a database along +with any required preprocessing, sub sampling, and transformations of that database

II. 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 technique. In association, a pattern is discovered based on a relationship of a particular item on other items in the same transaction. For example, the association technique is used in *market basket analysis* to identify what products that customers frequently purchase together. Based on this data businesses can have corresponding marketing campaign to sell more products to make more profit.

2. Classification

Classification is a classic data mining technique based on machine learning. Basically classification is used to classify each item in a set of data into one of predefined set of classes or groups. Classification method makes use of mathematical techniques such as decision trees, linear programming, neural network and statistics. In classification, we make the software that can learn how to classify the data items into groups. For example, we can apply classification in application that "given all past records of employees who left the company, predict which current employees are probably to leave in the future." In this case, we divide 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 meaningful or useful cluster of objects that have similar characteristic using automatic technique. Different from classification, clustering technique also defines the classes and put objects in them, while in classification objects are assigned into predefined classes. To make the concept clearer, we can take library as an example. In a library, books have a wide range of topics available. The challenge is how to keep those books in a way that readers can take several books in a specific topic without hassle. By using clustering technique, we can keep books that have some kind of similarities in one cluster or one shelf and label it with a meaningful name. If readers want to grab books in a topic, he or she would only go to that shelf instead of looking the whole in the whole library.

4. Prediction

The prediction as it name implied is one of a data mining techniques that discovers relationship between independent variables and relationship between dependent and independent variables. For instance, prediction analysis technique can be used in sale to predict profit for the future if we consider sale is an independent variable, profit could be a dependent variable. Then based on the historical sale and profit data, we can draw a fitted regression curve that is used for profit prediction.

5. Sequential Patterns

Sequential patterns analysis in one of data mining technique that seeks to discover similar patterns in data transaction over a business period. The uncover patterns are used for further business analysis to recognize relationships among data.

II. LITERATURE SURVEY

This literature review attempts to look at and the needs that they have in order to provide background of why Orphan's homes are necessary worldwide. I gathered literature using a variety of search terms and data bases. The broader search terms I used are orphanage, orphan, homeless Orphans, abandoned Orphans, needy Orphans, underprivileged Orphans, child poverty, Orphans's rights, public care, residential home, social services, child protection

The theory of early attachment is at the heart of such debates, as indicated by the recent book published by Naomi Quinn and Jeanette Mary Mageo, Attachment Reconsidered: Cultural Perspectives on a Western Theory (2013), in which the authors severely critique the ethnocentric claims and constructs of attachment theory
.
Sustainability can help to not only keep the first home operating smoothly, but also to promote an easier transfer of this structure into a different context to open more homes (McCall, Groark, Fish, Muhamedrahimov, Palmov, & Nikiforova, 2013).

According to Daniel Siegel, "Attachment is a system in the brain that evolves in ways that
influence and organize motivational, emotional, and memory processes with respect to significant caregiving figures" (2012: 91)
Today, there are more than 140 millions in the world (Bailey 2012).
The US government supports programs that cover the areas of healthcare, food security and nutrition, psychosocial support, shelter, economic strengthening, and education (Senefeld, 2011).

NGOs meet the basic needs of Orphans and additionally provide education, health services, vocational training, counseling, and social skills training. The outcomes that were discovered as a result of these resources are an increase in academic achievement and self confidence in the Orphans (Ferguson & Heidemann, 2009).

A child who was orphaned by only one parent can continue living with their other parent but may need additional support and resources (UNICEF, 2008)

Orphan hood refers to a state whereby a child has her parent(s) dead and left either alone to fend for her life, or depend on a relative, friend or care givers/ care takers (Beegle, 2006).

A focus on character education, cultural heritage, a caring community, peace education, social action, a just community, and ethical inquiry is the model of this home (Joseph & Efron, 2005).

In adulthood, these issues do not cease to exist and can cause illiteracy, poverty, exploitation, and homelessness (Annan, 2002).

Medical expenses seem to be the highest cost for Orphans's homes (Desmond, Gow, Loening-Voysey, Wilson & Stirling, 2002).

The girl-child education is one of the most serious important issues being emphasized by the developing governments of the world (UNICEF, 2001).

III. PROBLEM FORMULATION

➢ Orphans' homes opened to provide care and support to but often times run into issues ranging from a lack of finances to inadequate staffing.
➢ Funds typically come from devotees, private donors, and commodities programs, but orphanages constantly are facing a rising budget and lack of funds to cover the expenses of Orphans.
➢ Land and building structures are another high cost that orphanage struggle with.
➢ A quality education is crucial for orphan Orphans who receive limited support in their lives and need the resources and services that school can provide to them.
➢ Orphans living in orphanages or foster care have more mental and developmental problems than Orphans raised in a home with parents or adoptive parents.
➢ Orphan's homes who have less Orphans to care for or a smaller budget.

IV. OBJECTIVE

This study aims to identify the following aspects that are associated with difficulties facing by orphans in orphanage:

➢ To analyses the visualizations of orphans' growth.
➢ To perceive the problems and treatment faced by orphans.
➢ To identify the education related effects in orphanages.
➢ To observe specific forms of attachment disorder.
➢ To study and analyse donor's lack of interest in donations.
➢ To predict the reason of less finances, funds, staff, space & lands.
➢ To analyses the troubles faced by low budget orphanages.

V. METHODOLOGY

The research methodology is the basic framework action plan adopted in carrying out the research.
Following will be the steps involved during the research:-
➢ To study the universe involving orphans & orphanages.
➢ To develop a questionnaire consisting of various questions/parameters.
➢ To interact with the orphans, orphanage employees & donors in acquiring their views based on questionnaire.
➢ To analyse the collected response by using various statiscal test & data mining techniques.

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