A Novel Machine Learning - Based Technique to Recognize Family Relationship

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Abstract: *Today's world is open. Although countries are divided by borders, the development of transportation and secure international laws has made it easier for people to live in different places. In such a scenario it is equally easy for people to become as mentally away as they physically are. Many children of recent generation do not recognize their relatives who live farther and may not be very active in social Medias. In such situations it becomes a headache for parents to make the children recognize their relatives and their relationship with them. This project is a helping hand for such parents and a guide for such children.*

Keywords: Machine Learning, family, relationship

1. Introduction

In previous times family members and close relatives used to stay together or in nearby places but due to globalization the world has become far more vast and the relatives tend to live farther in search for better and more comfortable lifestyles. Simple example would be many Punjabi people going off to live in Canada away from their friends and family to live a better life. This search for success and comfort causes relatives to be unable to meet for a long time. Little ones of the family do not get time to familiarize with such relatives and tend to forget their names and relationship with them. Such situations cause the nucleated families to be further divided. To avoid this, we are providing family relationship website of user that they can find solutions to such family related problems for themselves and their future generations.

2. Literature Review

This section provides information about important works that has been performed in respect to making a survey of relationships. People are distributed across the globe making a highly tangled net of relationship. Countries all across the world try to keep data regarding relationships of their citizens. The identification cards of every type in them self is a mini survey of the same.

Although, such data is kept in various places, there is no prominent site where we can see them, nor is there any effort to compare and connect these data. Our project is beginning as similar mini survey but is with the desire to improve and to connect various surveys we take from people in the long run.

3. Background

Although no known mass - scale survey has taken place to connect the genetic heritage of people around the globe, however all the belief system converge at a point in the belief that we humans have same ancient origin. Religious books all claim that every human being had the same pair as their first ancestor. Science also supports this claim to some extent as the possibility of evolution to humans from primate is miniscule and all humans are probably the descendants of the initial few who had evolved and the possibility of inter - breeding among them is high, causing us to have almost same origin. Alas! The unknown past can never be completely known but we can prepare for the future. With the scale of immigrations across the world, the genetic pool has been intermixing this after certain time may be able to connect every one across the globe as it once was before Pangaea separated.

4. Objective of the Project

Our goal is to make it so that after few decades a model is created where many people all around the world are connected to one another with relationship that may be within 5 generations. All our aim lies in the belief of "One World, One Family". There is a line in a patriotic Nepali song which says, "The house spans form west to east but the courtyard remains the same and what happens if we are spread apart, as a family we are the same". This line is the concept we desire to prove with our project in times to come.

Advantage of Our System:

- User Friendly
- High storage capacity Fast access to database Easily accessible
- User Input available

Modules:

- This project has two modules: User module
- Admin module

Existing System

There exists an application named Family wall, where users may login and they are connected to their family members. They may share the calendar and reminders,

pictures and messages. The app also has system where they can share meal plans, shopping lists and location. All in all, Family wall is like a upgraded version of social media platform for family members.

Comparison

Our Web - page works on similar principal of connecting family members like the Family wall but we have taken a far different approach. As previously stated Family wall is like a upgraded version of social media platform for family members, although not the same but other social media platforms can easily do similar activities, however our web page is not a social media platform but rather a database containing information on relatives to be passes to future generation. Furthermore, in Family wall only the family members you know of will be in for list but our project is a way to connect people. As people add their relationship the links will be made if the same person is in more than one family tree there by increasing the list of relatives.

Survey Methodology

We have taken quantitative methodology for survey. We randomly approached people such as school students and asked them to answer simple questions like the number of their relatives, relatives who stay out of the country, relatives from the mother's side, relatives from the father's side, etc.

We then compared and contrasted their answers. We found even contrasts between the answers given by the same person. There were even people who agreed that they don't recognize many of their relatives.

We even approached the desk staffs of few local banks who further confirmed that even teens nowadays when asked to name even their own grand - parents get confused or at rarer moments don't know even their names.

5.Conclusion

To sum up our project it is a simple web page based program that is query where a user can search for their family relationship and add if not available so as to create a reliable site where users can get proper relationship model. This project being webpage is easily accessible to all through any device connected to the internet and the easy to use design it has makes it easy for everyone to input and view the data inputted without any complication.

6.Recommendation

This webpage is built as a databank for people wishing to store the information about their relatives so as to help those who may not know. The system is simple and is capable of storing the information It is recommended for everyone to use and contribute in gathering the data.

7.Future Work

We have a vision of improving this webpage in future updates. The additions we suggest are:

- Facial recognition
- Auto - suggestion for relative by comparing other survey
- Improve database as currently the data is only safe as long as server is operating
- Better security
- More user interface

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