Global Development Project For Educational And Economical Growth

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Abstract- *Technology is a collection oftechniques,skils,methods and processes used in production of goods or services or in the accomplishment of objectives.There are many people in Africa and South Asia who earn below $1 per day.There are many organisations such as UNICEF,Bread for the world and childFund that are fighting poverty.This paper is about a social development app that will help poor people to grow and develop the necessary skills to improve their lives .This app connects the impoverished areas to different NGO's and other organisations. This app can also be used by different organisations to contact poor regions of the world. It will contain different methods to solve the issues regarding poverty.This project will be helpful for both regular people and organisations to provide help to those who are in need. The main motive of this project is to act as a middleman between those who are in need and those who can provide help.*

Keywords-Social evelopment,poverty , organizations ,middle man

I. INTRODUCTION

Poverty in Africa has been a problem for a long time.The number of poor people throughout the world has been decreasing except Africa .The methods to reduce poverty will require different order from that elsewhere and will require different strategies. Other low-income regions are growing rapidly, and there the issue is how to diffuse growth unlike Africa which has shown poor growth rate and its income level is too low for redistribution to resolve poverty..During the present decade, African growth has accelerated, although not sufficiently rapidly to prevent continuing divergence . On average, over the period 1960–2000 Africa's population-weighted per capita annual growth of gross domestic product (GDP) was a mere 0.1percent. It stagnated, whereas other regions experienced accelerating growth. Indeed, between 1980 and 2000 the annual rate of divergence was an astounding 5 percent..Acording to the world bank report ,the growth in Africa slowed down from 4.5 percent in 2014 to 3.0 percent in 2015 and the slowest pace since 2009, and it is projected to drop further, to 2.5 percent in 2016. Per capita income growth was even more modest, weighed down by population growth.

Slower growth deepens the challenge of reducing poverty. Despite progress, the share of the population living on $1.90 a day or less remains very high, estimated at 42.7 percent in 2012.One important factor in alleviating poverty is to provide accurate data on the condition in target areas.By providing accurate poverty data.In this

project will show the targeted countries and classif different places into three poverty catagories Near poor(NP),poor(P) and very poor(VP).The informatio about those areas will be given in the app which wil in classification of the poor regions. Every year for next decade, 11 million African youth will enter the market. They must be equipped with the right skills training in order to succeed. To help bridge the gap between what African students are learning and the employers seek,this project also has been connect various learning sites so that they can develop their and make themselves employable.Also they can us app to seek employment depending upon their field expertise.

II. LITERATURE SURVEY

As mentioned above,our proposed system will locate the places on the map based on classification of areas into different catagories sch as Near poor(NP),poor(P) and very poor(VP).We can also find some applications that make use of the system we will be using in this app..

A.Existing System

So far we haven't come across any app that has similar use as our app according to our survey although there are few apps and organisations that work for the same cause.There is a system that makes use of Analytic Hierarchy Process (AHP) and k-means clustering method to to process survey data into categories.

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A review of using AHP and K-Means clusteringmethod to process the survey data into different catagories.The use of AHP itself is not enough because the results obtained still needs to be catagorised into catagories.K-clustering method finds boundary values among catagories and then AHP output is labelled based on the range value of each cluster.

The World Bank

They provide a wide array of financial products and technical assistance, and help countries share and apply innovative knowledge and solutions to the challenges they face. The Bank has launched initiatives to boost STEM (science, technology, engineering, and mathematics) education across the region. A $140 million Africa Higher Education Centers of Excellence project is funding 24 competitively selected centers in institutions of higher education in Eastern and Southern Africa. It will strengthen their capacity and focus on producing excellent training, applied research, and knowledge transfer in priority sectors such as agriculture, health, education, and applied statistics.

Survey of the Involver app

Involver is an app that helps us to connect with the many organisations that are available, but with a twist.It does so through a 'gamified' app interface. Load up the app and we will be greeted with bright colours, and colourful graphics.And choosing a cause we care for is also as easy as tapping on a scrollable menu, with categories such as Youth, Education, Environment, Poverty and Hunger, and many others. We can also highlight our skills, so that organisations can better place you in positions which you are more sure to excel in..Involver has partnered with several of them, and they are mostly situated either in Singapore, South Asia, or the Middle East.

Worldpackers:Backpacking,Volunteer work,Gap year

Worldpackers connect travellers with hosts from all around the world where you can exchange work for accommodation.Find work exchange and volunteering opportunities in hostels,NGO,social projects,schools,permaculture institutes and organic farms in 100+ countries.Travel with a low budget,stay with locals,live with people from different cultures ,share your skills and learn new ones.

Kranti-Volunteer Management System

Helps organisations manage their volunteers by allocating them to different teams and appointing admins for teams at regional level.Admins send broadcast message(text,images,videos) to people in their team/region and volunteers can only communicate with admins.

B.Analysis Report

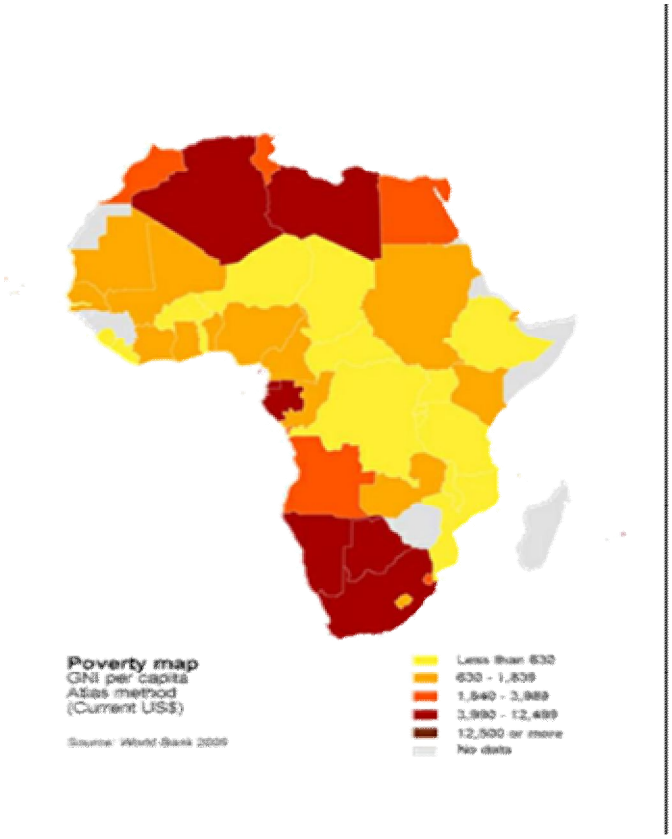

Figure 1

We have collected data about different countries in Africa.We analysed the conditions and causes of poverty and also the collected information on number of people that are able to acess technology and literacy rate.Despite large amounts arable land south of the Sahara Desert, small, individual land holdings are rare.Our main area study is Mali.Between 1992 and 1995, Mali implemented an economic adjustment programme that resulted in economic growth and a reduction in financial imbalances. The programme increased social and economic conditions, and led to Mali joining the World Trade Organization on 31 May 1995.Mali is also a member of the Organization for the Harmonization of Business Law in Africa (OHADA).The gross domestic product (GDP) has risen since. In 2002, the GDP amounted to US$3.4 billion,and increased to US$5.8 billion in 2005, whichamounts to an approximately 17.6 percent annual growth rate.Mali is a part of "French Zone" (Zone Franc),

which means that it uses CFA franc. Mali is connected with the

French government by agreement since 1962 (creation of BCEAO). Today all seven countries of BCEAO (including Mali) are connected to French Central Bank.

Agriculture

Mali's key industry is agriculture. Cotton is the country's largest crop export and is exported west throughout Senegal and Ivory Coast. During 2002, 620,000 tons of cotton were produced in Mali but cotton prices declined significantly in 2003. In addition to cotton, Mali produces rice, millet, corn, vegetables, tobacco, and tree crops. Gold, livestock and agriculture amount to 80% of Mali's exports.Eighty percent of Malian workers are employed in agriculture. 15 percent of Malian workers are employed in the service sector.Seasonal variations lead to regular temporary unemployment of agricultural workers.

Mining

In 1991, with the assistance of the International Development Association, Mali relaxed the enforcement of mining codes which led to renewed foreign interest and investment in the mining industry.Gold is mined in the southern region and Mali has the third highest gold production in Africa (after South Africa and Ghana).

The emergence of gold as Mali's leading export product since 1999 has helped mitigate some of the negative impact of the cotton and Ivory Coast crises.Other natural resources include kaolin, salt, phosphate, and limestone.

Energy and technology

Electricity and water are maintained by the Energie du Mali, or EDM, and textiles are generated by Industry Textile du Mali, or ITEMA.Mali has made efficient use of hydroelectricity, consisting of over half of Mali's electrical power. In 2002, 700 GWh of hydroelectric power were produced in Mali.Energie du Mali is an electric company that provides electricity to Mali citizens. Only 55% of the population in cities have access to EDM.In Africa, Chinese brands Infinix, Huaweiand Tecno are gaining traction offering low cost smartphones from US$50 to US$100. These brands have been largely accepted and more people are moving away from high end brands such as HTC and Samsung.In May this year, Jumia, Africa's largest ecommerce site, said it had seen a 45% increase of smartphones being bought. Its platform has introduced other brands including Injoo and Wiko which are being accepted in the local market. The demand for cheap smartphones is boosting penetration rates and is affecting the data bundle business for the majority of telecom companies. Safaricom, Kenya's largest telecom company has seen its profit shoot up through mobile internet services. The company said during its half year result ending September 2016 that: "Mobile data revenue, which accounts for 13.7% of the firm's service revenue, grew at 46.3% to Sh13.4 billion (US$134 million), driven by growth in active mobile data customers to 14.9 million, increased bundle users and smartphone penetration." According to research firm Ovum, the smartphone penetration rate will grow at 52.9% year- on-year. Currently there are 293.8 million smartphone users across the continent. Ovum predicts that there will be 929.9 million smartphones by the year 2021.

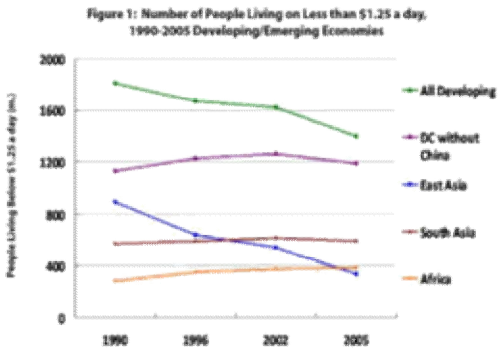

Figure 2

Internet users in Africa

For the success of this project it is necessary that there is internet facility in these places. Nigeria has 91.6 million internet users while Kenya has 43.33 million users. In Mali around414,985 users or 2.9% of the population (2011) use internet. Internet usage is low by international standards, ranked 123 of 125 by the UN in 2002

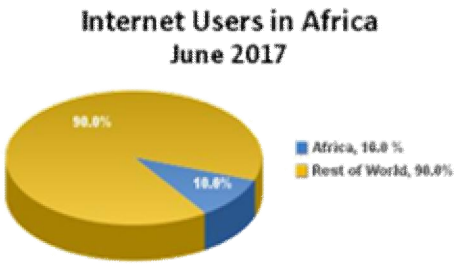

Figure 3

ORGANISATIONS HELPING AFIRICA Aid for Africa

Empowers poor African children, women and families to escape poverty through community –based self-help programs that improve health, expand education, create businesses, and protect wildlife.

A Glimmer of Hope Foundation

Fights poverty in rural Ethiopia with a holistic approach to change. We apply 100% of donations directly toprojects that lift up families and help create thriving communities. Since 2000, we have helped more than 5 million people change their lives.

Action Africa

Helps children in Sub-Saharan Africa lead healthier, more productive lives. Our work supports education,health, early preparation against pandemics, safety, particularly for orphans and girls, who face greaterrisk for violence, neglect and illness.

III. PROBLEM STATEMENT

Poverty is the current state of which the majority of people not only in India but in countries all around the worldreside. One of the major issues with poverty is that it is resulting in the characterization of impoverished people as people with no importance or benefit to society. This mindset then is providing an excuse for the government to overlook the urgency of poverty and then to further put off dealing with it.We can't continue to allow the poor to suffer and die.Therefore, it is extremely significant for all the people worldwide to become fully aware of the issue of poverty including its causes, resulting effects on people's lives, and the rest of theworld. We will create an app that will explore the imporvished areas around the world and also connect to the nearest NGO'sand other organisations that are willing to help.Also some areas are in a critical condition and need immediate attention but are ignored by government and sometimes NGO's are not able to reach them as well.This app will show them all the areas that need nourishment.There are many places in Africa where Gadgets such as mobile phone,laptops are not available so we have to make sure that they are able to acess the web in order to use our app .The regions need to be classified under different catagories so that the NGO's can make use of this app to find the areas that need immediate attention.Another problem that we came across during our analysis is how are we going to classify the targeted areas that need attention?How are we going to find the required data to carry out analysis?Can the organisations that we are connecting with really be trusted?These are some of the problem we have stated in this paper that we are going to solve.

IV. PROPOSED SYSTEM

In this section we will discuss how our app will tackle the problems that arise.Our app we will show the location of all the affected areas on our map.Organisations will detect their location on our map and then record the details about that area.There will be different catagories for each problem and various organisations can pick up the cause and provide help.The users can use this app to connect with the organisations as well as we will make use of refuberished market to provide the gadgets like smartphones,tablets,laptops so that people can useit to acess the web.The app will also be connected to different learning sites which will help the users learn a new skill to make themselves employable.We will also covers the latest news about these areas and write about the different organisations that are willing to collaborate with us to further our cause.We will maintain a record about the areas that need help as well as the organisations. We will use AHP and K-Means clustering method to classify different regions on our map.The areas that require attention will be marked on the map and all the information about the place will be available.We can use internet to gain information and reports about different places of the world.We will only contact those organisations that are credible.

Figure 4

K-mean clustering Algorithm

The k-means algorithm for partitioning, where each cluster's center is represented by the mean value of the objects in the cluster. Itisused for poverty mapping.Survey variables are organised and the clustering is carried out to map the poor regions of a specific country.For this case we choose an African country called Mali.

The k-means algorithm for partitioning, where each cluster's center is represented by the mean value of the objects in the cluster. Input:

k: the number of clusters

D: a data set containing n objects. Output:
A set of k clusters. Method:

1) Arbitrarily choose k objects from D as the initial cluster enters;

2) Repeat

3) (re)assign each object to the cluster to which the object is the most similar

4) based on the mean value of the objects in the cluster;

5) Update the cluster means, that is, calculate the mean value of the objects for each cluster until no changes.

Algorithm:

1. MSE = largenumber;

2. Select initial cluster centroids {m j }j K = 1;

3. Do

4. OldMSE = MSE;

5. MSE1 = 0;

6. For j = 1 to k

7. mj = 0; nj = 0;

8. Endfor

9. For i = 1 to n

10. For j = 1 to k

11. Compute squared Euclidean distance d2 (xi, mj);

12. Endfor

13. Find the closest centroid mj to xi

14. mj = mj + xi, nj= nj +1;

15. MSE1 = MSE1 + d2 (xi, mj);

16. Endfor

17. For j = 1 to k

18. nj = max (nj , 1) ; mj = mj / nj ;

19. Endfor

20. MSE = MSE1; while (MSE<OLDMSE)

Business Application

By making use of the abundant natural resources available in the country such as gold and cotton ,the economic condition can be improved.The main occupation of people in rural areas is agriculture.Therefore by providing them the means for agricultural growth we will be able to help those who are struggling to earn a living.The organisations that are willing to invest in this cause can contact the local NGOs using this app and vice versa.A complete survey about those organisations will be carried out and shown on our website. The app will contain links tosome online tutorial and earning websites.

V. CONCLUSION

We used AHP and k-cluster method method to classify different places in the world in different catagories and then used android studio and mysqlite for the database. We faced a few problems like lack of awareness about technology in poor areas so we decided to use refuberished markets to make the gadgets available for use in those places.The main motto of this app is to act as a bridge between the poor and organisations.But there is no merit in simply connecting them to organisations if they don't work for themselves to become independent.There are various online learning and earninig sites connected with this app which will redirect the users to those sites and they will be able to utilise the app to learn and earn.We have stated some learning and earning websites in this paper which can be helpful to people to develop the necessary skills .The natural resources available can be utilised in helping out the small sectors that are willing to grow big but lack the resources.

REFERENCE

[1] "Poverty classification using AnalyticHierarchy Process and k-means clustering",InternationalConference on Information,Comminication Technology and System(ICTS),2016
[2] "OtherSDK releases"Android Developers Retrived,September2,2009
[3] "Tools overview"Android Developers,july 21,2009
[4] PaulCollier," Poverty reduction in Africa",Proceedings ofthe NationalAcademy of Sciences ofthe United States of America(PNAS),Juluy 30,2007.
[5] Bob Lotic," 6 Legit Ways to Make MoneyFrom Home That You've Never Heard Of(,January 25,2014).
[6] EAC FinancialSector Development and Regionalization Project I:AF,Africa - (September 30,2016)

[7] Apurva P Pawar,Vandana S Jagtap,Mamta S Bhamare(October 2014)||Survey on techniques for Cross Platform Mobile Application
[8] West Africa RegionalCommunications Infrastructure Project - SOP3,Africa (March 24,2017)