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Estimation of Smart Election System data

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Abstract

On the internal based search, the big data inference, which is failed in the president's election in the United States of America in 2016, is failed, because the prediction method is used on the base of the searching numerical value of a candidate for the presidency. Also the Flu Trend service is opened by the Google in 2008. But the Google was embarrassed for the fame's failure for the killing flu prediction system in 2011 and the prediction of presidential election in 2016.

In this paper, using the virtual vote algorithm for virtual election and data mining method, the election prediction algorithm is proposed and unpacked. And also the WEKA DB is unpacked. Especially in this paper, using the K means algorithm and XEDOS tools, the prediction of election results is unpacked efficiently. Also using the analysis of the WEKA DB, the smart election prediction system is proposed in this paper.

Key words: *Big data, Data mining , electronic prediction, electronic vote*

1. Introduction

By predicting the big data, the NEW YORK TIMES reported the prediction as an 85% probabilities of Clinton's election and the Google and CNN reported the prediction as a 90 % probabilities of Clinton's election for the president's election results in the United Stated of America in 2016 years. The major presses, the professional groups and the public opinion poll companies assured the victory of the Hillery Clinton for the president's election results in the United Stated of America in 2016 years. But the election result was proved for the victory of Trumps. The complete opposite result was drawned by the predicting the big data in the major presses and the Google for the president's election results in the United Stated of America in the 2016 years[1]. Because the prediction method is used on the base of the searching numerical value of a candidate for the presidency, based on the internet, this failed big data inference for the presidential election in the United States of America is excluded for the low educated white American groups, who are not using the internet really, and the black American, who are candidates for the basic living persons, and when they

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elect the president, they did not elect the Clinton and chose the Trump and so the unexpected result was happened.

In this paper, virtual election voting algorithm and election prediction algorithm are proposed. Election prediction algorithm is discussed in chapter 2 and the simulation results is explained in chapter 3 and the results and further studies are concluded in chapter 4[11-14].

2. Election prediction theory

When the external symptom is doubted, the killing Flu inference service, which is developed in Google, inferences automatically over twenties related word items for the killing flu, which searches the internet, and is appointed the killing flu warning system and based on big data, is developed the data mining inference system theory which predicts killing flu patients. These new technologies for IT classification are very important classification technologies in data mining areas. Classification areas are processed in the various study areas and recently the most important issue is for the processing ability for the large database capabilities. Classification is an important technology in data mining areas. Classification areas are already progressed and recently the most important issue is for the algorithm of the large database processing abilities. Theoretically if the large data is used in classification, the fact, that the accuracy of all classification models can be improved, is known in the various studies [2-5]. In this paper, using the president's election questionnaire, the election prediction system is proposed and so can be unpacked and decided the favorite probabilities of the favorite party for the peoples on real time based on internet. Actually in election, the election prediction rate of candidate has a large difference for the communities, ages and policies. Therefore to analysis the exact election prediction rate, using the grouping analysis, these problems must be unpacked precisely. The K mean grouping algorithm belongs to the partition method in clustering methods. The K-mean algorithm is decided as a cost function, which squares the distances between the centroid of each group and data object in group, and to minimize the cost function, it is executed the clustering by updating the belonging group of each data object. The concept of K-mean algorithm is introduced by the Hugo Steinhaus but the terminology itself used first in 1967 years by James Mac Queen. At present, the used standard algorithm is proposed first by Stuart Lloyd in 1957 for the PCM but it is opened first in computer science magazine in 1982. The K-mean partition method is to divide the given data into the various partition groups. For example, suppose that the n's numbers data objects are input. At this time, the partition method is to divide the input data into the equal or less than k's groups and less than n's numbers and at that moment each group is formed by clustering. Therefore it is divided as the k's group which is structured as more than one's data objects. At that moment, the procedure of dividing the groups is processed by minimizing the cost function like group's dissimilarity based on distances. This procedure increases the similarity between data objects in same groups and decreases the similarity between data objects in different groups. In this paper, to solve these problems, using the data mining tool, the WEB based election system, which maximum unpack the candidate's support rate, is simulated precisely. In real election, it is easy to decide the possible election support rate of the candidate in public opinion poll but the support rate of the same candidate is difficult to unpack and decide in real time for the possible election support rate of the candidate depending on the communities, ages and policies. In this paper, to solve these problems, using the data mining tool, the simulation is executed to improve these problems.

3. Simulation

In this paper, the simulation is processed for the analysis the probability in election by input the ages and approval ratings based on WEB. The election predicting system and opinion mining using these big data are

started to develop in early in 2000's with activating in the electronics business. Opinion mining has a characteristics for finding the useful information among the review data and the same large information. In this paper, using the TAG XEDOS TOOL, it can be input the various voter's opinion as a TEXT and can be automatically unpacked and can be displayed the results as a graph. Also in this paper, using the K-mean clustering algorithm, it is estimated the similarity between the groups based on distances displaying the input item summation of party supporting rates. Using the characteristics that the similarity between the same objects is increased and the similarity between different objects is decreased, the computer simulation is executed using simulation WEKA tool for deciding the final party supporting rate.

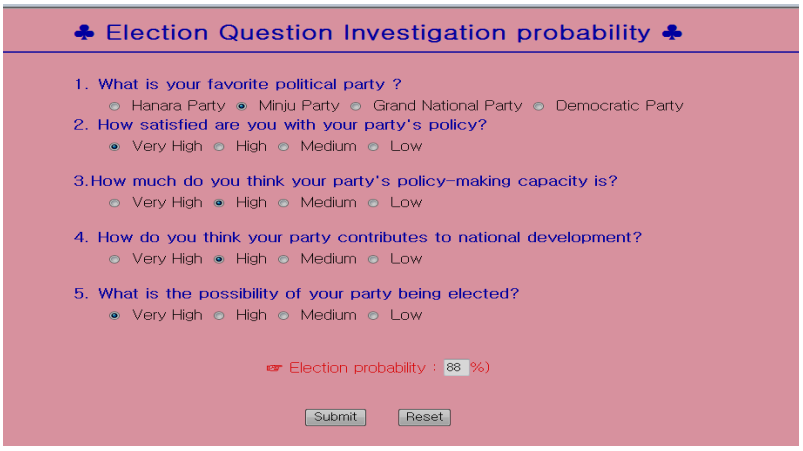

Figure 1. Election predicting system

In Figure 1, using the election questionnaire, the election prediction system is simulated for the analysis of the popular and possible party based on internet.

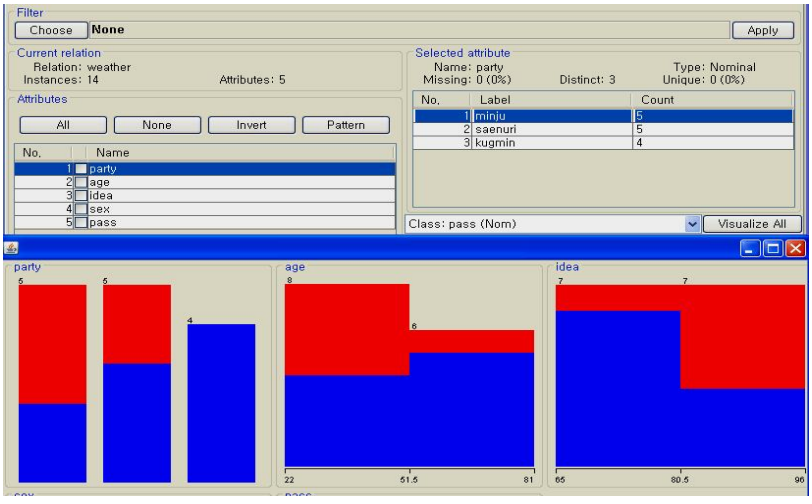

Figure 2. WEKA election prediction simulation

In Figure 2, using the WEKA method, by classification of voter's gender, policies of party and communities, the rising and falling problems of election supporting rate for the same candidate are explained for the analysis process

Figure 3. Election prediction system

Especially the WEKA DB analysis and XEDOS tools of the election prediction system is used. In Figure 3, using the TAG XEDOS TOOL, it can be input the various voter's opinions and automatically can be unpacked and can be displayed the results as a graph.

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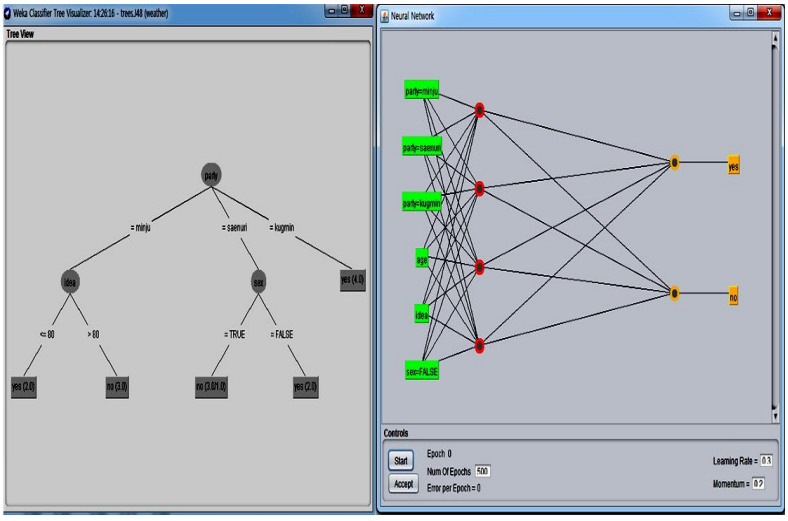

Figure 4. Election prediction system based on the Data mining WEKA TOOL

In Figure 4, using the data mining WEKA TOOL, the election probability of voter's for the party is unpacked and displayed using the Decision Tree and neural networks.

```
<font color=#3333CC size=3>
<b> 1. What is your favorite party? </b> </font>
<input type=radio name=name value=1 checked onclick=winper()> HANARA
<input type=radio name=name value=2 onclick=winper()> MINJU
<input type=radio name=name value=3 onclick=winper()> JAMI
<input type=radio name=name value=4 onclick=winper()> INDEPENDANT
<b> 2. What is your policy satisfaction level for favorite party? </b> </font>
<td>     
```

```
<input type=radio name=mun1 value=1 checked onclick=winper()> VERY HIGH
<input type=radio name=mun1 value=2 onclick=winper()> HIGH
<input type=radio name=mun1 value=3 onclick=winper()> NORMAL
<input type=radio name=mun1 value=4 onclick=winper()> LOW      <br><br>
<font color=#3333CC size=3>
<b> 3. What is your deciding level of policy acting ability for your supporting party? </b> </font>
<td>     
<input type=radio name=mun2 value=1 checked onclick=winper()> VERY HIGH
<input type=radio name=mun2 value=2 onclick=winper()> HIGH
<input type=radio name=mun2 value=3 onclick=winper()> NORMAL
<input type=radio name=mun2 value=4 onclick=winper()> LOW      <br><br>

function election2018()
var form = document.vote
var total=0                                                    /* ALL PROBABILITY */
if (form.mun1[0].checked) total += 24                    /* PROBLEM /
if (form.mun1[1].checked) total += 20
if (form.mun1[2].checked) total += 15
if (form.mun1[3].checked) total += 10

#define aa__cnt 2
#define dd_cnt 30
for(int i=0;i<datas.size(); i++)
double min = distance[0][i];
int min_j = 0;
for(int j=1;j<aa_cnt; j++)
if(min > distance[j][i]){
min = distance[j][i];
min_j = j;
center[min_j].x += okdata[i].x;
function KMeansClustering( int data, int size )
for(unsigned int loop = 0 ; loop <max ; k++)
this->Cluster[vt] = rand() % nk;
```

4. Conclusions

On the internet based search, the big data inferences ,which is failed in the president' s election in the United States of America in 2016 years, is failed, because the prediction method is used on the base of the searching numerical value of the president's candidate. Also the Flu Trend service is opened by the Google in 2008 years. But the Google was embarrassed for the fame's failure for the killing flu prediction system in 2011 years and the prediction of president's election in 2016 years. In this paper, using the virtual vote algorithm for virtual election and data mining methods, the election prediction algorithm is proposed in real time. A prediction of election results is unpacked in the future, through the text mining and image data and audio data mining analysis, it can be decided to improve the more precise smart election prediction system. Also in this paper, the simulation for supporting rate of party is unpacked and decided by WEKA analysis.

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