



Finally, we gain a visual interactive system whose main interface is showed in figure 3. We can see in the sheet that piles of charts are aligned with the 3-Dimensions of specific information. Each chart illustrates the information amount varies with time on a certain web site. And the red curve represents Tsinghua University related information while the green one represents PekingUniversity. Hence we can know the difference between them within a glance.

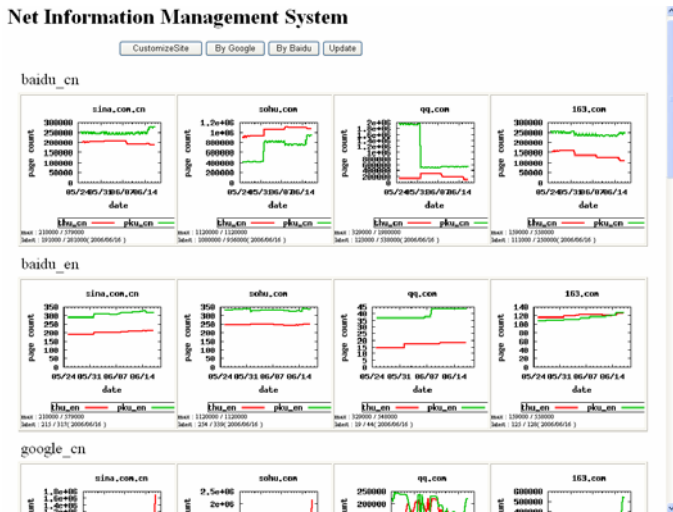


Fig.3 System interface

As you might have found, I distinguished different search engines in our system. Here, we have a comparison between the famous Google and Baidu which is the biggest search engine in China as showed in figure 4. We can find that Google does much better than Baidu in searching pages in English.

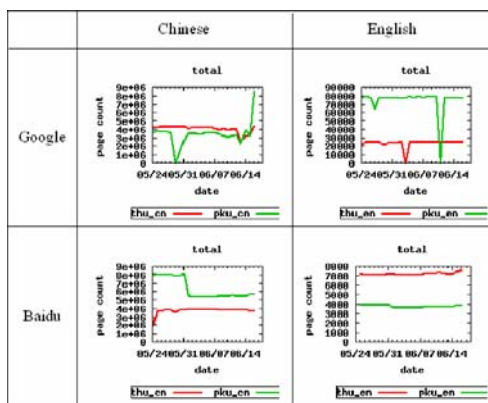


Fig.4 Comparison between Google and Baidu

### 3. SE-BASED MODEL FOR SOCIAL SCIENCE STUDY

There have always been many kinds of surveys in social science to gain the knowledge of society. However, all these surveys are carried out by filling forms or answering questionnaires. After the embarrassing collection

of answer sheets, a tough and boring work of statistics is waiting us. The whole mission is ineffective and imprecise, because it combines too much subjective views of humanity. So I proposed a new way to accomplish a survey more precisely and more effectively. That is, using search engines, the powerful information collector and classifier.

In our experiment, I designed a system to survey the distribution of Open Source Software (OSS) in China. The traditional way would be inviting strangers to fill our questionnaires such as “Do you like UNIX?” or “What do you use to set up web service, Apache or IIS?”. However, we avoid this anxiety by applying search engines. The structure of this model is showed in figure 5. We can see that it’s similar to the structure of the above model, to some extent.

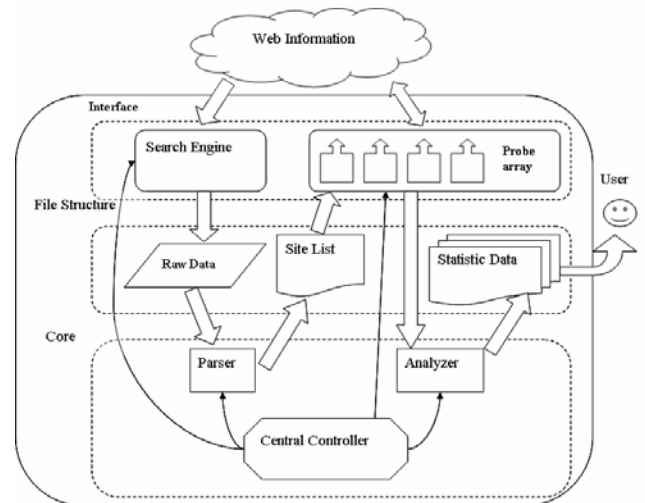


Fig.5 Structure of SE-based social survey model

By applying this system in China, we gain following results. Figure 6 shows the operating system’s market occupation in China. Obviously seen, Windows is in a overwhelming position. I also survey the question in China’s governments and gain a result showed in figure 7.

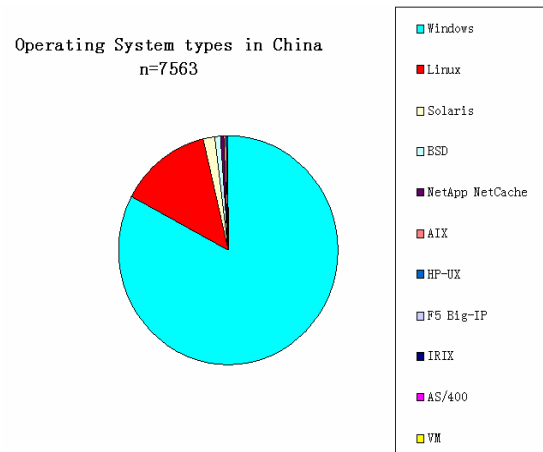


Fig.6 OS distribution in China

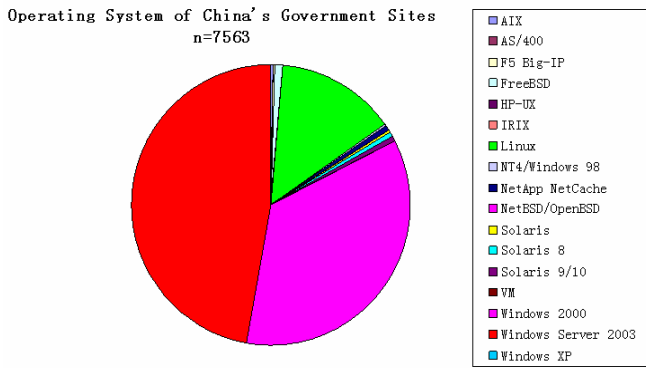


Fig.7 OS distribution in China's governments

Furthermore, I study the relationship between Operating System distribution and the economic development or GDP value. Thus gain figure 8. And there's little relationship, for the curve is simply flat. Are you shocked by this result? I am.

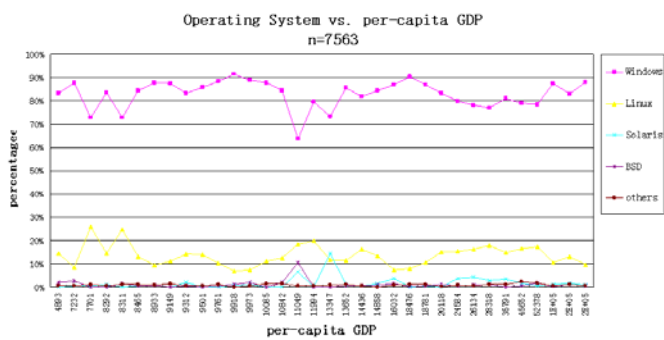


Fig.8 OS distribution v.s. per-capita GDP

As mentioned above, I survey the OS distribution in governments. Similarly, I survey in academic organizations and education departments as well and gain the comparison as showed in figure 9.

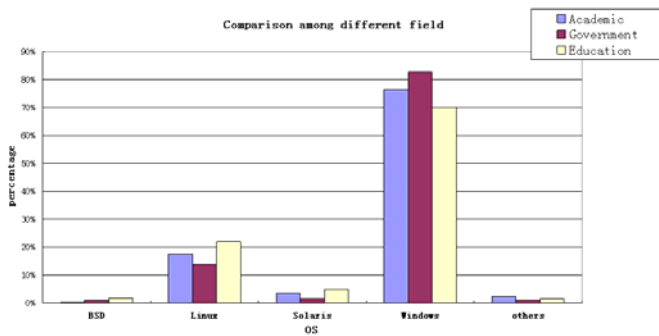


Fig.9 OS distribution comparison in China's different organizations

#### 4. SUMMARY

In this paper, I present two novel models which demonstrates the new application of search engine technology. As described in the paper, search engines help to inspect the variation of specific information and the

survey in social science. Through our practical experiments, I prove that search engines can be used in many fields to solve lots of problems.

#### REFERENCES

[1] ARVIND ARASU, JUNGHOO CHO, HECTOR GARCIA-MOLINA, ANDREAS, PAEPCKE, SRIRAM RAGHAVAN. Searching the Web, ACM Transactions on Internet Technology, August 2001, Vol..1, No.1: Pages 1 - 43.  
 [2] LIU Zuoda, XU Jingfang, CHEN Maoke , LI Xing, "SE-based network specific information 3D inspection system", Journal on Communications , Vol.27, No.11A, November 2006.