ITech

Data *Mining*

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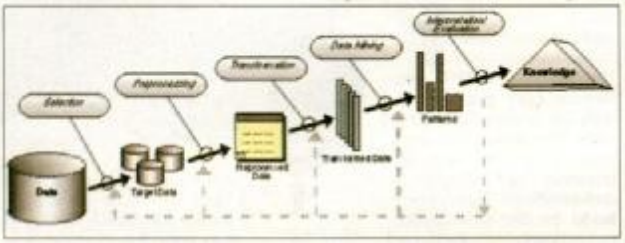

Bookkeeping makes the difference. Here is the most advanced knowledge discovery technique namely Data Mining to help you in the critical issues of making decision.

When there is a problem you face in making decision for formulating successful strategy, the managerial tool that is going to hand in the best help is the database. There is gold in your data but you cannot see it. Most important is to detect the problem trends. After that the solution becomes easy.

Where does the flaw lie? It is not elsewhere but in your colossal databases where terabytes (more than 1,000,000,000 bytes) of data are stored. Within these masses of data lies hidden information of strategic importance. But when there are so many trees, how do you draw meaningful conclusion about the forest.

The first and simplest step in data mining is to describe the data using the various statistical tools such as means and standard deviation and visually review it using charts and graphs. And then you look for potentially meaningful links among variables.

The amount of information stored in databases is exploding. From millions of point-of-sale transactions and credit card purchases to pixel-by-pixel images of galaxies. Databases are now measured in gigabytes and terabytes. Computer techniques are now being developed to assist analysts in their work. Data Mining, or knowledge discovery, is the computer-assisted process of digging through and analysing enormous sets of data and then extracting the meaning of the data nuggets. Data mining used both to describe past trends and to predict future trends.

Data mining is a tool, not a magic wand. It won't sit in your database watching what happens and send you e-mail to get your attention when it sees an interesting pattern. Data mining will not automatically discover solutions without guidance. Data mining does not replace skilled business analysts or managers, rather gives them a powerful new tool to improve the job they are doing.

Data mining and data warehousing: Frequently, the data to be mined is first extracted from an enterprise data warehouse into a data mining database or data mart. There is some real benefit if our data is already part of a data warehouse. The process of Data Mining mainly includes two key factors. First coming up with a precise formulation of the problem you are trying to solve. Then preparing data description; summarise and visualise. However the basic steps to data mining for knowledge discovery are, defining business problems, building data mining database, exploring data, preparing data for modeling, building model, evaluate model and deploy model and results.

Data mining offers great promise in helping organisations uncover patterns hidden in their data that can be used to predict the behavior of customers, products and processes. However , data mining tools need to be guided by users who understand the business, the data , and the general nature of the analytical methods involved. Realistic expectations can yield rewarding results across a wide range of applications, from improving revenues to reducing costs.

Building models is only one step in knowledge discovery. It's vital to properly collect and prepare the data, and to check the models against the real world. The "best" model is often found after building models of several different types, or by buying different technologies.