

一個有效率的漸進式資料探勘架構—以醫療門診為例

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摘要

The implementation of the National Health Insurance Program is the most remarkable social infrastructure in Taiwan. In the same time, hospitals digitalize their patient's data as well as medical treatment information in order to support electronic claim. Currently, electronic claims have reached a rate of 99%. Therefore, there are numerous useful medical information and knowledge can be discovered in the hospitals' database. In the thesis, we proposed an incremental data mining technique (I-STD) which can discover association rules for the incremental database efficiently. We also examine the performance by comparing the execution time for apriori, STD, FUP and I-STD. The experimental results show that I-STD has smaller execution time when the support is set to 0.1%. For the support modification procedure, I-STD and FUP has similar performance when we increase the value of support, but I-STD has superior performance when we decrease the value of support. For the data maintenance procedure, I-STD spends less time comparing with FUP and the difference goes up when the number of modified data increase. In the experiment, we have found out seven association rules when support is 0.3% and confidence is 50 %.

關鍵字：Incremental database Data mining Support Confidence