

## Editorial

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Dear Colleague:

Welcome to volume 6(5) of the journal *Intelligent Data Analysis*!

Volume 6(5) of IDA consists of 5 articles, representing a collection of applied and joint research from a group of distinguished researchers in this field. The topics vary from pattern discovery in databases to imbalance data sets, detection of outliers, and adaptive e-commerce.

In the first article, Wang, Hong and Tseng look at the problem of effective discovery of sequential patterns in large databases. Their proposed algorithm takes the advantage of previously discovered large sequences that are obtained during the database maintenance process. Their approach results in reducing the number of times that a database has to be scanned so that all interesting patterns can be discovered. The second article by Siermala and Juhola discusses new computational and theoretical methods to analyze the nature of experimental data. The particular domain for this research is protein secondary structures. Their method demonstrates how prediction accuracy for conventional local prediction can be understood and shows why local prediction is so difficult. The third paper, by Japkowicz and Stephen, is about class imbalance problem in machine learning. Their paper presents a systematic study aimed at different issues related to this problem, namely: (i) understanding the nature of class imbalance, (ii) introducing several re-sampling or cost-modifying methods to deal with the problem, and (iii) investigating the assumption that the class imbalance problem affects various classification systems, and not just decision trees that were known before.

Shekhar, Lu and Zhang, in the fourth paper, deal with the method of detecting outliers in data. They investigate new techniques for identifying spatial outliers in multidimensional geometric data sets where there exists a distance measure. They have introduced an algorithm for this problem and developed cost models to properly deal with this problem. The paper includes results of their experiments, which demonstrate the effectiveness and usefulness of their approach on some experimental data sets. The last paper of this issue, by Gupta and Mathur, is about adaptive e-commerce. Analyzing web related data, they propose a model to solve the problem of web-page adaptation, as it is needed in today's complex web page architectures. Their approach involves dynamic analysis of web related data, obtained from the users, so that web-page adaptation can be achieved as users attempt to view different pages.

And finally, we are working on another special issue of IDA for this year. We should be able to provide details of our new policy on special issues and provide an insight on our plan of the future, soon. We would like to thank our colleagues for their continuing support and assistance on planning and preparation of special issues.

Best wishes,

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Editor-in-Chief