Transactions on Machine Learning
and Data Mining
Vol. 7, No.2 (2014) 39-40

ISSN: 1864-9734,
ISBN: 879-3-942952-28-6

ibai Publishing
www.ibai-publishing.org

Editorial

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The awareness for any kind of data and how they can be used to improve business, health, daily life has been drastically improved over the years. Data become the economic factor.

Here in this journal one paper [1] deals with health engine monitoring for detecting early signs of failures (anomalies) in complex systems. It allows in particular avoiding actual failures by (re)scheduling maintenance operations in a way that optimizes maintenance costs. The study in this paper is done for aircraft engine health monitoring. This article introduces and studies a generic methodology that allows one to build automatic early signs of anomaly detection in a way that builds upon human expertise and that remains understandable by human operators who make the final maintenance decision. From the huge amount of parameters generated are first selected the most relevant parameters by a feature preselection method. The obtained feature subset is given as input to a Naive Bayes classifier. This classifier detects anomalies that allow the expert to decide when the maintenance of the engine should start. The proposed methodology was evaluated on simulated data. It has been shown very good results and can now be used on real world engine data.

The second paper in this journal deals with the design of systems for automatic predictive behavior targeting [2].

Predictive behavior targeting is of great importance in marketing and selling products and a key factor for success. It must be done in good quality to get effective predictions of customer behavior and it has to be done fast to be relevant under business aspects. The article describes the general structure and ideas how to implement industry-focused model production that will help to react quickly to changing behavior. The modules and the function of these modules are described. The developed architecture opens the way to standardized predictive behavior targeting.

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