Abstract

Due to potentially large number of applications of real-time data stream mining in scientific and business analysis, the real-time data streams mining has drawn attention of many researchers who are working in the area of machine learning and data mining. In many cases, for real-time data stream mining online learning is used. Environments that require online learning are non-stationary and whose underlying distributions may change over time i.e. concept drift, because of which mining of real-time data streams with concept drifts is quite challenging. However, ensemble methods have been suggested for this particular situation. This paper reviews various online methods of drift detection. We also present some results of our experiments that show the comparison of some online drift detection (concept drift) methods.

References

Online Methods of Learning in Occurrence of Concept Drift

- Indre Zliobaite. Learning under Concept Drift: an Overview. Tech. Report, Vilnius University, Faculty of Mathematics and Informatic, 2010
- MOA: Massive Online Analysis, a Framework for Stream Classification and Clustering
- Stanley, K. O. (2003). Learning concept drift with a committee of decision trees, Technical Report UT-AI-TR-03-302, Department of Computer Sciences, University of Texas at Austin, Austin, USA.
- Albert Bifet, Jesse Read, Bernhard Pfahringer, Geoff Holmes, and Indrė Zliobaite? e CD-MOA: Change Detection Framework for Massive Online Analysis

Index Terms

Computer Science
Information Science
Keywords

Concept Drifts  Drift detection algorithms  Online methods of learning.