Online Cost Sensitive Domain Knowledge Adaption

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Abstract

In online learning, classifier is updated as records get available sequentially with the help of time. The misclassifications depends on the class which has been wrongly classified. Above both concepts are largely studied in data mining. In Cost sensitive online learning classification, cost of the misclassification is considered during online learning of the classifier. In domain knowledge adaption, Knowledge (Classifier) from source domain is adapted to target domain considering cost of misclassification. So accuracy of the system is increased. In proposed work cost of the misclassification is considered to adapt the knowledge from source domain to target domain. The proposed system uses the concept of cost sensitive online learning based knowledge transfer. In existing knowledge transfer system i.e. in OTL cost of misclassification is not considered while transferring knowledge from source domain to target domain. But in proposed system cost of misclassification is considered while updating classifier on sequentially coming data. To evaluate the approach spam base dataset is used and the implemented system gives better results.
References

1. Cost Sensitive Online Classification, Jialei Wang, Peilin Zhao, and Steven C.H. Hoi, Member, IEEE, IEEE TRANSACTIONS ON KNOWLEDGE AND DATA ENGINEERING, VOL. 26, NO. 10, OCTOBER 2014
8. From data mining to knowledge discovery: an overview, Usma Fayyad, 1996
9. OTL: A Framework of Online Transfer Learning, Peilin Zhao zhao0106ntu.edu.sg, Steven C.H. Hoi 2010

Index Terms
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Cost sensitive classification, online learning, Domain Adaption, Naive Bayes classifier.