THE CONVERGENCE PROPERTY OF SUPPORT VECTOR MACHINES

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Abstract

The accuracy of the model induced by a learning algorithm has converged when adding more training data yields no improvement over the model accuracy. It has been shown that some fast-learning algorithm such as naive Bayes converges more rapidly than dicision-tree induction algorithm. In this paper, we comparatively study the convergence property of two support vector machine algorithms to the naive Bayes algorithm. It turns out that the Sequential Minimal Optimization (SMO) algorithm learns faster and induces a more accurate model than does the naive Bayes algorithm.