Abstract
The search for the k nearest neighbors, has been applied to a wide variety of applications in the field of Text Mining and Information Retrieval for its simplicity and accuracy. However, these general areas of knowledge in handling high-dimensional objects with features that make the process of finding the k most similar objects to a given computer has a high intensity, due to the large number of operations performed to calculate the similarity between all the objects involved. In this paper we propose two methods for parallel sparse matrix multiplication using a GPU, which minimize the time spent in the calculation of similarities between objects in the kNN algorithm to classify documents.

Keywords
GPGPU, document classification and sparse matrix multiplication.