

DEEP LEARNING FOR INFINITE APPLICATIONS IN TEXT ANALYTICS

Problem – Challenge

Automatic text analytics can be helpful in many companies and industrial sectors, for instance for process optimization, in decision support, or to develop new products and services. A classical application in marketing and customer support use social media monitoring to detect positive/negative messages about the company and its products, or to identify trending topics. Machine learning is a technology from Artificial Intelligence which achieves excellent results in text analytics. In fact, machine learning algorithms (and in particular Deep Neural Networks) reach almost human performance in many cases. However, to achieve this, they are usually highly-optimized for one specific task, and a huge amount of human effort is needed to adapt them for a new task.

Solution

Researchers at ZHAW and ETH Zurich have successfully developed algorithms for various text analytics tasks, including sentiment analysis, topic extraction or age detection. They founded the startup “SpinningBytes AG” in 2015, which brings these technologies to market. First projects are already running. Now they go one step further and automatically generate solutions for customer-specific text analytics tasks. The software works for arbitrary text types (news, tweets, legal texts etc.) and various languages. To achieve this, the customer provides a set of training documents, and the pipeline automatically designs, trains, and optimizes a proper deep neural network. The goal is that the system can generate a suitable software library within three days.

