

## UK based firm harnesses data to power ad targeting



Contemporary world of media buying and selling is fast-paced, with competitive advantages accruing to businesses who can make correct decisions in real-time to increase profitability. Real-time data creates the opportunity to implement beneficial changes both strategically and technically across the organization for greater efficiency and improved campaign outcomes. Marketers and their agency partners who are swift and able to quickly understand the extent to which their campaigns are delivering as planned and who can then take corrective action as needed are realizing improved financial ROI. Thereby, Algoscale implemented decision science to aid the client by integrating data from a variety of sources, allowing for a complete understanding of audience information, content preferences, and advertising consumption behaviors.

### **The Client**

An internet marketing service founded in 2014 in London, UK. They provide DMP and DSP solutions based on cookie-less technology.

### **The Challenge**

The client wanted to take advantage of their data warehouse in segmenting and targeting campaigns, and in attributing responses to those campaigns in future efforts. Also, identify ad impressions which were not being aimed at its key audience and allocate media budget. Gain insights on which ads drive people to buy particular products and thereby recommend the publishers regarding content and orientation accordingly for better ROI. Moreover, by having better measurement and cross device tracking would allow the marketing team to make better informed media decisions.

### **The Solution**

Algoscale crawled corpus figure of 8000+ websites with content falling into one of the 32 IAB categories and further into 200+ IAB Sub-categories. These categories included sports, music, travel, science, technology and computing, food, etc. This text was vectorised by using the Word2Vec model and then used to train the ML Model based on Topic modeling. It also used a translation API to convert English text to Italian. Ultimately, the Machine Learning model was created and integrated with Rest API. We also performed user profiling (classification) based on various factors such as age, gender, location, purchase intent, vertical preferences, Name Entity Recognition (NER) etc. so that various segments of the customers could be formed and targeted for advertisement. Sentiment analysis which deals with rational models of emotions and trends within user communities was carried out to understand the nature of attitude and behaviour of the customer.

### **Benefits**

Algoscale optimized time by achieving very fast processing speed of about 250k messages (user data) per second. Topic modeling of a wide variety of about 30 topics was accomplished with an accuracy of 90% hence improving SEO. The client also found out ways to suggest publishers the channels they were overinvested in and were able to make smart adjustments resulting in improved revenue generation.

### **Technology Stack**

Spark, Deep Learning 4j, Weka, Kafka, RabbitMQ, Cassandra & Reactjs.