Abstract

This thesis aims to combine the topic of outlier detection together with the prediction of television ratings. On the basis of TV audience datasets from the OTT streaming platform Zattoo an outlier detection was performed and the outliers could be matched to certain events that happened at that date and time. Additionally, it was analysed what the attributes of TV audience data are and what influence events have on television ratings. Predicting outliers in data is another topic that has been discussed in this research, in particular, what influence outliers have on the parameters of forecasting methods. Three forecasting methods are presented, exponential smoothing, Holt Winters and ARIMA (p,d,g) and how outliers can be included in the predictions. Along with that, it will be shown how events can be forecasted through performing a multiple regression. After the theoretical part follows the analysis of the datasets from OTT streaming platform Zattoo. Three German channels were investigated, ARD, ZDF and ProSieben. It was seen that events do have an influence on television ratings by causing particularly large viewing numbers that were recognized a priori through the outlier detection. Furthermore, it was found out that the category sports is the dominant category within all the events that were detected, the other categories being music and politics. The other hypotheses that were analysed revolve around what influence public holidays have on television ratings, what happens on another channel while an event is being televised and what influence the location of the channel has on the events that are streamed. For the last hypothesis two Swiss channels were chosen, SRF 1 and SRF 2.