Analysis and Prediction of Netflix Viewing History Using Netflixlatte as an Enriched Real Data Pool

Authors : Amir Mabhout, Toktam Ghafarian, Amirhossein Farzin, Zahra Makki, Sajjad Alizadeh, Amirhossein Ghavi **Abstract :** The high number of Netflix subscribers makes it attractive for data scientists to extract valuable knowledge from the viewers' behavioural analyses. This paper presents a set of statistical insights into viewers' viewing history. After that, a deep learning model is used to predict the future watching behaviour of the users based on previous watching history within the Netflixlatte data pool. Netflixlatte in an aggregated and anonymized data pool of 320 Netflix viewers with a length 250 000 data points recorded between 2008-2022. We observe insightful correlations between the distribution of viewing time and the COVID-19 pandemic outbreak. The presented deep learning model predicts future movie and TV series viewing habits with an average loss of 0.175.

Keywords : data analysis, deep learning, LSTM neural network, netflix

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