

システム情報工学研究科修士論文概要

年 度	平成28年度	学位名	修士(ビジネス)
専 攻	経営・政策科学	専攻	著者氏名 陳 思夷
指導教員氏名 TURNBULL Stephen John			
論文題目 Applying Data Mining of SNS to Forecasting New Product Performance: A Case Study of Predicting Movie Box-Office Revenues with Twitter (SNSでデータマイニングを利用した新製品成績の予測に関する研究：ツイッターで映画収入成績の予測)			
論文概要 This thesis applied data mining of Twitter to forecasting movie box-office revenues. It introduces the relationship between communication, marketing, and big data. Initially marketing worked mainly as an advertising function, but now big data pushes the communications industry into the front lines. This study explores how big data from Twitter might be used to improve movie box office sale predictions. The research question is “How do predictions by models using (1) the number of tweets, (2) net sentiments and (3) combined sentiments compare to those based on the traditional model?” We hypothesized that incrementally adding (1) the number of tweets, (2) net sentiments, and (3) combined sentiments including “messy data” like URLs will improve movie sale predictions with each additional variable. As a result, the volume-based model did improve the prediction based on traditional model, especially for the first week sales. The net sentiments-based model sometimes improved the traditional model, but it also shows instability. The combined sentiments-based model largely improved predicting sales, and accurately predicted the actual values. It is assumed that the convergence effect between metadata can produce a mix power that balances the bias occurred from net sentiments. We conclude that Twitter could be used as an increasingly potential tool to forecast movie box office, extended to how social media can be utilized to forecast a new product or service.			
審査日	平成 28年 1月 29日		
審査員	(大学名 職名)	(学位)	(氏名)
主査	筑波大学 准教授	Ph.D. in Economics	TURNBULL Stephen John
副査	筑波大学 教授	Ph.D. in Organizational Behavior	渡邊真一郎
副査	筑波大学 准教授	博士(社会工学)	石井健一