

# The Hong Kong University of Science and Technology

Department of Information Systems, Business Statistics and Operations Management

Seminar Announcement



## Targeting Pre-Roll Ads using Video Analytics

by

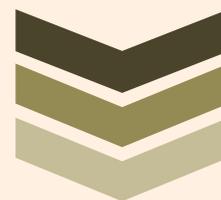
**Prof. Gene Moo LEE**

**Assistant Professor**

**UBC Sauder School of Business**

**University of British Columbia**

**Date** : **Wednesday, 17 February 2021**  
**Time** : **10:00 am - 11:30 am (Hong Kong Time)**  
[Click here to join Zoom](#)  
**Zoom Details** : **Meeting ID: 980 8427 4157**  
**Passcode: 653073**



**Abstract:** Digital pre-roll video ads keep rising at an unparalleled pace, creating new possibilities and challenges. These are more engaging than traditional banner ads and must be watched at least part of them before one plays video content. Additionally, the skippable format of pre-roll video ads usually provided at the five-second mark presents marketers and channels with possible vulnerabilities and opportunity costs when the pre-roll ad is skipped. We propose an analytical framework to solve this problem by extracting multimodal (audio, video, and text) properties from video ads and the ensuing video content using deep learning and signal processing techniques and evaluating their effect on the completion of viewing the video ad. We use a database from a leading Asian content network to validate our model. The results suggest that the congruence between ad and content plays a significant role in explaining viewers' ad completion tendencies. Specifically, the same celebrity featured in the pre-roll ad video and the subsequent content video allows viewers to engage with the ad if viewers formed ex-ante expectations of the ad-content congruence based on thumbnail images of the content available prior to viewing. Furthermore, by conducting predictive analyses, we find that video ad completion can be accurately predicted by features constructed from the proposed framework. Surprisingly, there is no apparent loss of predictive power when one is analyzing only the first five seconds instead of the complete ad and content videos, saving considerable costs in processing massive video datasets.

**Bio:** Gene Moo Lee is an Assistant Professor of Information Systems at UBC Sauder School of Business. He received his Ph.D. in Computer Science from UT Austin. His research is to advance business analytics using AI approaches. His works have been published in MISQ, ISR, JMIS, and ACM/IEEE conferences. He received AIS Early Career Award in 2019 and holds 11 patents in mobile technology.