

# THE HONG KONG POLYTECHNIC UNIVERSITY DEPARTMENT OF MANAGEMENT AND MARKETING

## Departmental Research Seminar

### Exploring Cross-Modal Emotional Consistency in Multimedia Content

By

**Prof. Shane Wang**  
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**Date : 14 Mar 2025 (Friday)**  
**Time : 10:30 am – 12 noon**  
**Venue : GH120c, PolyU**

#### Abstract

The art design of a music album is an important component of its marketing and sales. While it is generally agreed upon that the album cover should “fit” the style of the music, what this “fit” means is not exactly clear. We propose that one element of this fit comes from the emotional similarity of the album’s cover art and the music it represents, meaning that both modalities evoke the same kind of emotional responses from the listeners. Building upon emotion theory and the Transformer-based neural network Wav2vec 2.0 model, we created a novel metric to measure the emotional similarity between the images and audio of music non-fungible tokens (NFTs) under the classic pleasure-arousal-dominance (PAD) emotion model. From a major NFT trading platform, we collected an 18-month panel dataset that includes weekly prices of 1,670 music NFTs. Furthermore, we adopted both feature extraction and kernel principal component analysis (KPCA) to control the image and audio features of these music NFTs. From field data and an online experiment, we find that a stronger emotional alignment between images and audio leads to higher prices for music NFTs, primarily because consumers anticipate consistent content.

**Prof. Shane Wang** is a Professor of Marketing at Pamplin College of Business, Virginia Tech University. His research focuses on artificial intelligence and machine learning techniques with applications in business and social media analytics, firm strategy and management. His current research and teaching interest maps the relative strategic positions of competitors where they matter most – in the minds of customers. His work has appeared in *Marketing Science*, *Journal of Marketing Research*, *Journal of Marketing*, *Journal of Consumer Research*, *Management Science* and *International Journal of Research in Marketing*. Prof. Wang has been recognized as one of the Top 50 Most Productive Marketing Scholars (based on the number of publications in 2014-2023 on the four premier marketing journals). Prof. Wang was named to the MSI Young Scholar (2021) and the MSI Scholar (2024). Before joining Virginia Tech, Prof. Wang was the Kraft Associate Professor of Marketing at Ivey Business School, Western University, Canada.

Prof. Wang is a member of the academic council at the American Marketing Association and serves as the Vice Chair of Education and Training for the AMA AI Special Interest Group. Additionally, he is a Senior Editor at *Production and Operations Management*, an Associate Editor at the *Journal of Marketing* and the *Journal of the Academy of Marketing Science*. Prof. Wang is also a member of the editorial review boards for the *Journal of Marketing Research*, *Journal of Consumer Research*, and *Journal of Retailing*.

**All interested are welcome.**



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