ANNOUNCEMENT

Bachelor Thesis

KEYWORDS

- Music Industry
- Cluster Analysis
- Entertainment Marketing
- Marketing Analytics

TOPIC: CLUSTERING MUSIC ARTISTS FOR MARKETING ANALYTICS

Entertainment companies (e.g., music labels) face the challenge of finding the right mix of marketing activities for their products (e.g., music albums). The increasing availability of large data sets provides opportunities for companies to better evaluate their marketing effectiveness. Cluster analysis can be applied as a preparatory step to analyze the heterogeneity in marketing effectiveness across different product types and, consequently, to optimize the allocation of marketing expenditures. In addition, cluster analysis can be useful for targeting purposes (e.g., for recommendation engines on streaming services). In the context of music products, initial empirical evidence suggests that purely genre-based classifications might not be optimal. Therefore, the goal of this bachelor thesis is to cluster music artists using multiple features beside genres (e.g., acoustic features, social media data) based on a large data set that comprises information for more than 1500 music artist. Furthermore, different clustering algorithms (e.g., k-means, rock) should be tested to ensure the robustness of the results (e.g., using the cba package in R). Some clustering methods automatically choose the ideal number of clusters as part of the clustering. For the other methods (e.g., k-means), a hyper-parameter optimization has to be done to pick the ideal number of clusters.

LITERATURE:

- **Chapman, C. & McDonnell Feit, E. (2013):** *R for Marketing Research and Analytics*, Springer, pp. 299-338.
- **James, G., Witten, D., Hastie, T., & Tibshirani (2015):** *An Introduction to Statistical Learning*, Springer, pp. 373-401.
- **Guha, S., Rastogi, R., & Shim, K. (1999):** ROCK: A Robust Clustering Algorithm for Categorical Attributes, *Proceedings of the 15th International Conference on Data Engineering*, pp. 512-521.

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APPLICATIONS

Applications with CV and transcript of records should be sent to Christian Hotz-Behofsits (christian.hotz-behofsits@wu.ac.at).