e-Portfolio Activity: Research Proposal Review

Which of the methods described in this week's reading would you think would suit your purpose?

Which data collection methods would you consider using?

Initial research in the topic of machine learning in music recommender systems has led me to the research question, “do music recommender systems affect users’ musical preferences?”

Though I found a study that intended to measure musical preference changes by asking users to use a numerical rating scheme (Adomavicius, 2021), reflecting on my own rating behaviour caused me to question the effectiveness of asking a research subject to self-report their preferences. Personally, I have found myself positively rating songs because of nostalgia, non-musical appreciation for artists, and because I didn’t want the platform’s recommendation algorithm to stop recommending songs from an artist or genre. Thus, I decided to research the merits of self-rating preferences and found that data reported by subjects may be prone to bias (Aziz et al., 2022).

This has led me to believe that I need to conduct an experiment where I can control variables related to music recommender system usage in order to establish a causal relationship (Dawson, 2015). Further, I believe a field experiment will offer the best construct to observe and measure user preferences surreptitiously, minimising the impacts of the study on the results (Paluck & Cialdini, 2014). Quantitative analysis would help minimise subjectivity and allow analysis of a large sample size (Dawson, 2015), but steps must be taken to ensure that inconsistent qualitative musical classifications, such as music genres, do not interfere with analysis (Lampropoulos et al., 2012).

References

Adomavicius, G. et al. (2021) Effects of Personalized and Aggregate Top-N Recommendation Lists on User Preference Ratings. ACM transactions on information systems. [Online] 39 (2), 1–38.

Aziz, A. et al. (2022) The Consequences of Rating Inflation on Platforms: Evidence from a Quasi-Experiment. Information systems research. [Online]

Dawson, C. (2015). *Projects in Computing and Information Systems*. 3rd Edition. Pearson International Content.

Lampropoulos, A. S. et al. (2012) A Cascade-Hybrid Music Recommender System for mobile services based on musical genre classification and personality diagnosis. Multimedia tools and applications. [Online] 59 (1), 241–258.

Paluck, E. L. and Cialdini, R. B. (2014) “Field Research Methods,” in Reis, H. T. and Judd, C. M. (eds) Handbook of Research Methods in Social and Personality Psychology. 2nd edn. Cambridge: Cambridge University Press, pp. 81–98. doi: 10.1017/CBO9780511996481.008.