Assignment 1

Music, Mind & Technology

Release Date: 14.1.23
Deadline: 11:59pm, 25.1.23

Task 1 (Deadline: 16 January)

Fill in the STOMP questionnaire by Tuesday, 16 January. The data collected will be released on Wednesday, which has to be used for Question 3 of the assignment.
Link to the questionnaire: https://forms.gle/Qm59TkFiT5QtRfTu8

Question 1

How has music's role as "social glue" evolved over time with music consumption now being an increasingly individual activity? What are the advantages and disadvantages of how music is consumed in the age of the internet as compared to the pre-internet era?
Cite all sources for the arguments provided in your answer.

Question 2

When does music become noise? Address this question in two scenarios:
1. When listening to music as an individual activity.
2. When listening to music in public settings.

Question 3

Perform PCA (with varimax rotation) on the data provided to you from Task 1 to explore music preference dimensions. Report the total variance explained by
   1. the first 6 components, and,
   2. the first 4 components.
Label the components according to your understanding and compare the loadings in both scenarios with those from Table 2 and Table 3 respectively. Discuss your observations. What genres in your opinion should be added to STOMP to make it relevant to current times?

Table 2. PCA factor loadings from the 14 genres using a six-factor, varimax-rotated solution

Genre	Music preference dimension					
	Rhythm 'n' blues	Hard rock	Bass heavy	Country	Soft rock	Classical
Jazz	**.774**	.069	.097	−.154	−.017	.278
Blues	**.754**	−.006	−.182	*.311*	.001	.061
Soul	**.703**	.063	*.383*	.113	.072	−.143
Heavy Metal	−.061	**.812**	.083	.134	.024	−.141
Alternative	.134	**.763**	.161	−.077	−.143	.222
Rock	.106	**.655**	−.176	−.057	*.548*	−.110
Rap	.113	.017	**.842**	.119	.056	−.089
Dance	.010	.111	**.763**	−.109	.056	.098
Country	.020	−.112	.007	**.834**	.145	.069
Folk	.146	.164	−.016	**.731**	−.079	.118
Pop	.077	−.002	.097	.015	**.869**	−.155
Soundtracks	−.157	−.061	.149	.079	**.613**	*.507*
Classical	.222	.013	−.132	.043	−.020	**.762**
Religious	−.024	−.016	.163	*.429*	−.140	**.603**

Notes: N = 395. All factor loadings .300 or larger are provided in *italics*; factor loadings in **bold** represent highest factor loadings for each genre given each dimension.

Table 3. PCA factor loadings from the 14 genres using a four-factor, varimax-rotated solution

Genre	Music preference dimension			
	Acoustic foundation	Hard rock	Bass foundation	Soft rock
Folk	**.639**	.108	−.023	.101
Country	**.624**	−.116	−.051	*.382*
Religious	**.606**	−.176	.082	.118
Blues	**.600**	.187	.146	−.299
Classical	**.568**	−.006	−.030	−.086
Rock	−.060	**.814**	−.077	.286
Heavy metal	−.038	**.723**	.027	.068
Alternative	.096	**.643**	.190	−.180
Rap	−.036	−.057	**.792**	.206
Dance	−.127	.005	**.693**	.174
Soul	.245	.211	**.649**	−.175
Jazz	*.367*	.220	**.441**	*−.398*
Pop	−.083	.261	.174	**.657**
Soundtracks	.232	−.007	.089	**.650**

Notes: N = 395. All factor loadings .300 or larger are provided in *italics*; factor loadings in **bold** represent highest factor loadings for each genre given each dimension.

General Instructions

- Plagiarism is strictly prohibited.
- Cite all external sources used in your answers
- **No extensions will be given**