Evaluating & Updating Music Genre Bars

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Music Genre Bars are horizontally stacked bar charts that represent soft music genres. Soft music genres are weighted multiple genre annotations to songs; for example a song belongs to 20 % blues, 30 % country and 50 % jazz instead of completely belonging to blues or country or jazz. In the genre bar, each stacked bar represents a particular genre. These genre bars have been deployed in a music streaming application prototype. In the streaming application the genre bars are provided with sliders so as to allow the user to change the genre proportions by changing the length of the stacked bars (where the bar length is commensurate to the genre proportion). Changing genre proportions further results in finding the nearest corresponding songs from a given playlist using euclidean distance.

In this work we propose an evaluation method for these deployed Music Genre Bars. The evaluation is in two parts; evaluation of the genre bars in and of itself and and evaluation of the bars embedded in the music streaming application prototype.

		A B C				
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○ A: 50 ⁴	% B: 25%	C: 25%				
A: 30	% B: 40%	C: 20%				

The evaluation of these stacked bar charts involves conducting user studies. The basic idea of the user study is verify and ensure whether the users are able to identify proportions from the bars correctly. The questions in the questionnaire were specifically developed to ascertain whether users would correctly match a set of numerical proportions to their corresponding visual counterparts.



This streaming application prototype, containing the genre slider, is evaluated using user studies obtained from heuristic evaluation . The user study is developed in a usability study software called Maze. The user study basically requires users to complete certain actions or tasks and answer some questions on the given prototype using the software. These actions include moving the slider and changing the proportions of the genres while the questions were related to the overall usability of the slider and the interface. Specifically the users were asked increase or decrease the proportions and were asked for the affordance (how the object can be used) of the slider. After a combined analysis of thirty-six respondents to the survey, it was discovered that respondents around 96.7% of the time matched correct numerical proportions with a given visual chart while the respondents 96.1% of the time successfully matched correct visual charts with a given numerical proportion.

From the analysis of the user study results of the prototype, it emerged that the genre slider initially seemed intriguing to some users. In order to address this and to improve upon the prototype, the genre slider was labelled and annotated with the corresponding proportion and the genre so as to provide clarity behind the purpose and the intent of the slider and also to display the exact proportion of the respective genre. The analysis indicated that most of the users on average (around 95 %) also completed the genre changing tasks (as specified in the Maze software in the user study) successfully.

