

Collaborative online radio for Android

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Nowadays users can find a vast assortment of services on the Internet. This increases the necessity of websites that support these services, not only in science, academic or business contexts, but also in entertainment.

Online radios have currently become one of the most used services by Internet users, due to its ease of use and the fact that music can be regarded as “cultural heritage of humanity”. Online radios are based on “Webcasting”, i.e. sharing multimedia content over the Internet. For this, it is used “Streaming” technology, which allows users to play music asynchronously without necessity of download it in their devices.

In this area arose the so-called collaborative personalized radios that help users to finding new music they like, based on their own preferences. Some well-known examples of collaborative personalized radios are: Pandora (www.pandora.com) or Last.fm (www.lastfm.es). The success of these radios lies in the use of *Collaborative Recommender Systems*, whose recommendations are made based on terms of similarity between users, i.e., recommended items are liked by other users with similar interests to the one that will receive the recommendations.

Given the importance of the collaborative online radios, we have considered the possibility of using them on Android mobile devices. Taking into account that Android (Mobile Operating System owned by Google in 2005) used by millions users around the world, this contribution presents an online radio Android app based on a Collaborative Recommender System, in which the music delivered and recommended to users is under Creative Commons licenses (<http://creativecommons.org/>).

To do this, first it has been necessary to choose an appropriate collaborative

filtering algorithm for our Recommender System. Afterwards, we have integrated in the app a significant sample of music licensed by Creative Commons. Based on such a sample, we have designed, developed and deployed a REST web service where the music is retrieved. Finally, we have developed an Android Application which the user can play music, rate songs based on whether they liked or not, and receive recommendations based on his/her preferences and those music rated positively by other users with similar profile. Future studies could consider the mood of the user to further personalize the recommendations in this application session.