MEGSRADIO.FM: LOCALLY-FOCUSED PERSONALIZED INTERNET RADIO

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1. INTRODUCTION

MegsRadio is a personalized Internet radio service that allows users to create customizable streams of music based on seed artists, events, tags, tracks or genres. However, our radio player is different from commercial systems, like Pandora and Apple Music Radio, in three significant ways:

1. MegsRadio focuses on **promoting music by local artists** [2]. Our system plays a mixture of songs by well-known artists alongside songs by local artists. The idea is that, at first, the songs by popular artists produce an enjoyable listening experience, as well as provide trust in the quality of our music recommendations. Over time, songs by local artists will also become familiar and enjoyable. Then, by providing local music event recommendations, our system encourages listeners to attend concerts & festivals, and thus will increase participation in the local music scene.

2. The technical emphasis of this work is to **develop powerful new playlist algorithms** that combine information from a variety of data sources (e.g., web scraping, audio analysis, user listening habits). We are also developing MegsRadio as a shared academic testbed so that other researchers can submit and evaluate their own playlist algorithms in realtime with live users.

3. MegsRadio provides a user with deep control over customizable streams of music with a number of **novel interactive features** that are not available on commercial systems [1]. First, our list of "genres" includes traditional music genres as well as emotions, instruments, acoustic properties, cities, music venues, festival, etc. Second, a user can create a station that blends multiple seed artists and genres. For example, a user can listen to a custom station with songs that sound similar to "The Beatles", are "aggressive", and might be heard at the "Grassroots" music festival. In addition, users can control the mix of music along a variety of characteristics such as percentage of local vs. non-local songs or popular vs. obscure songs. Users can also filter songs on a variety of acoustic properties such as tempo, energy, positiveness, and danceablity.

In September 2013, we launched a web-based version of MegsRadio to the greater Ithaca community [2]. In our first six weeks, we generated a small amount of local media coverage and had over 1,500 people use our website. Based on our successful initial launch, we are confident that MegsRadio can have a positive impact on a local music community. However, our initial growth was limited by two key factors. First, users suggested that we develop native iOS & Android apps since they tend to use their mobile devices as the primary means for listening to music. Second, we needed to have a more robust and scalable backend to support playlist generation and music streaming to support hundreds of simultaneous users.

To this end, we scrapped our prototype system and have been developing a new professional-grade music service from scratch for the past three years. We plan to relaunch MegsRadio with iOS, Android and desktop web apps in the July 2016. We also plan to launch a companion site called MegsArtist where local artists share their music and connect directly with MegsRadio users.

2. ACKNOWLEDGMENTS

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3. REFERENCES

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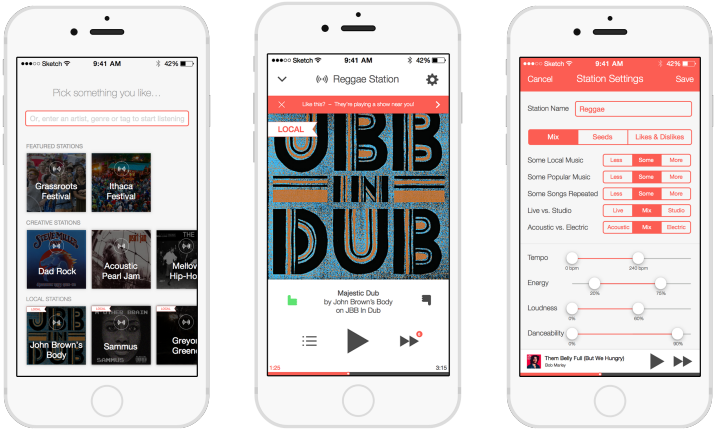

Figure 1. MegsRadio Mobile App: (left) A user can start a station by picking artists and tags (e.g., genres, emotions, instruments, etc.) or by selecting one of the featured local artists, venues, or festivals. (middle) The user hears a mix of songs by both well-known artists and relevant local artists. Events are recommended to the user based on their feedback and geographic location. (right) Using song characteristics (tempo, energy) and station mix options (popularity, local emphasis), a user can control the mix of songs that played on the station.

[2] D. R. Turnbull, J. A. Zupnick, K. B. Stensland, A. R. Horwitz, A. J. Wolf, A. E. Spirgel, S. P. Meyerhofer, and T. Joachims. Using personalized radio to enhance local music discovery. In *Extended Abstracts on Human Factors in Computing Systems (CHI)*, pages 2023–2028, 2014.