

The future of radio: Combining music streaming with traditional terrestrial radio services

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Introduction

Audio streaming services are used daily by millions worldwide, enabling on-demand listening and the discovery of songs, artists and podcasts that closely align with the listener's preferences. Meanwhile, traditional terrestrial radio persists as another ubiquitous and still viable mode of accessing more pre-programmed music and news content, including traffic reports and weather information.

While both media services offer listeners a distinct set of value propositions, efforts to combine the 'best of both worlds' have been few and far between.

Music streaming services

Streaming has rapidly become the standard delivery method for digital entertainment content. With their ubiquity and large catalogues of recorded music and podcasts, along with their social functions, audio streaming services offer listeners an enticing array of experiences, resulting in the widespread adoption of these services.



User research

To best understand users' habits and to have them into account from the very early stages, we have used three different user experience research activities: surveys, diary studies, and interviews.

Survey

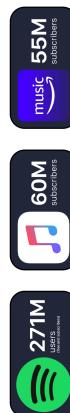
We have conducted a survey using the online tool Google Forms. Over one week, we have gathered 198 responses.

Which factors do you find more relevant when using a music streaming service?

- Sound quality
- Convenience
- Music discovery
- Social features
- Large catalogue
- Human connection
- Radio shows
- Disclosure of news
- Sense of community
- Listening suggestions
- Reliability
- Sports reports

Interactive radio

Although traditional radio is considered to be a one-way communication channel from station to listener, many radio hosts try to mitigate this by asking listeners to interact with them, applying an interactive radio approach that enables a dynamic interaction between radio hosts and listeners.



Interviews

The first augmentations to this concept were the 'Nomadic Radio' system, on which the latter 'AudioFeeds' platform was built on. The more recent 'MyMyRadio' system takes a more user-centered approach, by taking updates from a user's Facebook or Twitter accounts, and synthesizing them using text-to-speech slotting these spoken updates into a playlist of a selected periodically.

In the ambit of pushing forward this interactive radio platform, it is suggested the integration of new features, such as a mixture of **localized content**, **speech synthesis**, and **pre-recorded audio**, as well as personalized music streams such as Spotify, combined with integration with **social media** and **new digital services**.

Value proposition

Based on the conducted research, we purpose a new platform, called Stereo, with the following key functionalities: Creation of personalized and highly customizable radio stations, allowing users to select their desired music (by song, albums, artists, playlists or others), using an on-demand music streaming service, or even add to the station other audio media content such as podcasts or audiobooks.

A virtual radio host based on text-to-speech technology is attributed to each station, allowing readable content (such as news or weather) to be delivered during that session. The virtual radio host mimics as best as possible a 'real' radio host, promisable as much as possible a 'real' radio station.

Shareability of the created radio stations, allowing a simultaneous listening experience of radio stations among the platform users, reproducing the same community feeling as traditional terrestrial radio, while at the same time indulging audio listeners in a social-network like atmosphere.



Conclusion and future works

We investigate how we can develop a platform that aims to best represent audio media consumers' music streaming and traditional terrestrial radio habits into an integrated and personalized experience, that may be shared within small networks of friends and family.

To do so, we started by studying the available mediums and the concept of interactive radio, followed by preliminary user research that gives us an insight into users' listening habits. To understand how these habits can be represented in a new user experience, we used the speed dating methodology. Based on the gathered feedback, we present our user proposition, which consists of the Stereo platform, which will be developed with a sturdy focus on the user.

As we look for the future of radio to emerge, the development of a high fidelity prototype and a subsequent user testing is necessary to fully testify the desirability, feasibility, and viability of such a platform and its features.

Speed dating

In order to explore a diverse group of early-stage concepts, and to reflect on their stature, we have used the speed dating methodology. This method consists of a two-stage process: need validation and user enactments.

Need validation

The need validation stage consists of presenting a set of storyboards to a group of target users, to synchronize the design opportunities found with the needs they perceive.

We have crafted a set of **four personas**, based on four different potential users. To each persona, a set of **personality traits** and a **scenario** was attributed. Each scenario represents a distinct use case of this platform, focusing on situations where it is easy for participants to imagine themselves performing the mentioned activities.

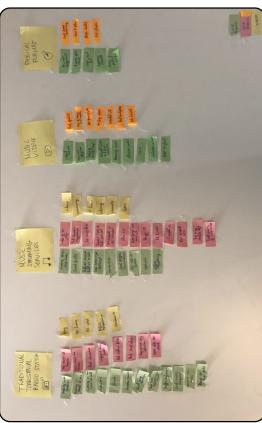
We have represented these persons and their respective scenarios in a set of **storyboards** that document how each need arises in daily life. These storyboards were presented to small groups of target users.



User enactments

As a result of the need validation process, we were able to reduce our design dimensions by three main user enactments: **Create**, **Listen**, and **Share**. These represent the three primary types of interactions with the system. An additional set of time-based dimensions – **'Initiate'**, **'Employ'**, and **'Explore & Customize'** – were identified.

Based on this information, we developed a **medium-fidelity prototype** aimed at showcasing a preliminary concept of the platform to the common user. The prototype was presented to a set of users which were encouraged to share their opinions and engage in discussion with each other.



Interviews

We have conducted **semi-structured in-person interviews** as a follow-up to the diary study. The main objective of the study was to gather detailed information on users' audio media-consuming habits. We have obtained qualitative data from the interviews, which we added to our affinity diagram.

- Create
 - Listen
 - Share
- Creation of a personalized station, where the user selects their desired audible content, as well as the stations schedule and preferences
- Actual listening experience of these stations, whether created by a given user or otherwise, in the context of the user's daily routines
- Shareability and community features of the system, such as simultaneous listening of station sharing