An Investigation of an Advanced Playlist Function Based on Streaming User Behaviour

MSc User Experience Engineering Computing Project

September 2020   Shichen Ran
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Abstract

Playlists provide a marvelous approach to lead us through the massive music content we now have access to thanks to the digital music libraries and streaming technologies emerging these years. During the past two decades, researchers have done extensive studies on playlist creation and generation. Recent studies highlight that adding interactivity allows users to engage in playlist creation, while little work has been devoted to exploring novel interaction for the playlist experience. This study aims to investigate user need and potential design opportunities within the up-to-date digital context through user behavior research. Beginning with findings from the existing discussion on the playlist topic, this paper inquires whether the need for more user control and interactivity in the playlist functions is valid. The findings from user research unveils significant individuality in how they approach the playlist function, suggesting the importance of personalising the user's experience. Furthermore, We introduce a concept design to help users build their own solution to meet their needs.

Introduction & Background

Although the changing of music format has deeply affected music listening experience, the user need in music consumption can be traced back to earlier stage of recorded music.

For example, the traditional radio station can be regarded as manually curated playlists where people can discover new songs of their favourite genres. The radio function is also kept in today's streaming service, whereas the updating algorithms make it more intelligent to detect music taste. Also, the prevalence of personal playlists shows how people still try to "collect" music at the Internet age. Just like they used to make mixtapes and personal CDs, they can now use playlists to aggregate songs about a specific artist, genre or context, also as a way to leverage the burden of having to browse the vast digital content.

When going through previous work related to playlist experience, I have found that a large number of studies were dedicated to test the accuracy and quality perception of the next-track recommendation algorithms, while the rest of them paid attention to user study in playlist creation behavior, such as the context, purpose and desired properties of playlists. Also I have found that limited research interest has been given to the general playlist experience, including how we create, manage and listening to our playlists. Given this research gap, this study is focused on user control and assisting techniques in general playlist experience.

Research Methodology & Results

Mix-method User research- survey and interview

The range of ways in which the participants create, manipulate and play their playlists proves that music streaming services invite various approaches to the massive digital resources. Streaming users are applying individual strategies including selective uses of service features to utterly transform the product(playlist) through the context and manner of its use(Hagen, 2015). More importantly, it can be argued that there is potential demand for more user control and playlist assisting techniques integrated in the current music applications. The results unveil a rewarding approach to enrich playlist user experience, which is to give users more choices over how they sort, organize and play their music collections. Specifically, the collected responses shed lights on the future playlist features in the following aspects: (1) Users are curious about their listening statistics, but they don't want the order of their playlists to be influenced by their listening behavior permanently; (2) Mixed playlist is a promising feature and operationality is essential when integrated to mobile applications; and (3) Considering the heterogeneous listening habits, selective features design might be an ideal way to satisfy different demands.

Conclusions

Individuality in playlist usage As we have demonstrated, streaming users present heterogeneous ways and motives of playlist creation. The flexible use of playlist features, the unique ways of assembling and managing music suggest that people have varied degrees of interaction and attachment with their playlists and streaming services, which informs the necessity of selective features in playlist function design.

Play mode and temporary playlist customization Despite the flexible usage of existing play modes, our observation unveils potential opportunities in inserting the idea of mixed playlists. The demand for mixed playlists can be traced back to an earlier stage of recorded music when manufacturers produced multi-record changers to solve the problem of having to switch records. Although we have seen some external customization tools that allow users to customize and recreate their playlists, current streaming services failed to integrate the corresponding features smoothly into mobile applications.

Contradictory demands for reorder We pointed out that in current structures, people's adhesiveness to their original curations conflict with their fleeting preferences, especially when the playlists contain large content or have been kept for long.

Shuffle and music randomness People's perception about music randomness is a mysterious issue which has been troubling many music service providers. The ability to temporarily reorder a playlist, which is missing in the current features can be very handy because it not only saves the nasty work of manually rearranging songs, but also provides users a visible result to enhance the reliability.

Proposed Design

Order control & Mixed playlist