## SENG 310: Assignment 1- SoundCloud

## Part 1:

 Provide a high-level description of the conceptual model used by the selected music streaming software service. You should provide and refer to some screenshots of the software you chose to critique in your description

<u>Purpose</u>: Founded in Berlin in 2007, SoundCloud is an online based audio distribution platform that serves as a streaming service, an online community, and music library with millions of tracks. It allows users to follow artists, share and listen to music around the world. Users can customize their profile to suitable format and be used to share and follow other users.

<u>Concepts</u>: It enables users to record, upload, share and promote their own music. It can also allow users to organize profile and create playlists for their music to be shared with others. The platform has a streaming function that allows users to receive latest news from their favorite artists. The 'Charts' function lets users search for new artists and songs that are suitable for them. SoundCloud allows sound files to be embedded anywhere and can be combined with Twitter, Facebook and Instagram to let members reach fans easier.

<u>Critique</u>: The 'Collection' interface and 'User profile' contains roughly the same functions and layout. This creates a redundant page that provides identical information, which can be unnecessary and a waste of space (Figure 1). The main goal of the platform is to share and promote music. However, new users have an empty Home page that contains no music. It requires users to use search and charts function to locate/find audios and this can cause confusions for some (Figure 2). Ideally, charts function should be set as main domain and to be used as a guide for new users.

- 2. Which key metaphors and analogies are used by this software? SoundCloud is an audio platform designed to share and provide music to users globally. The name of the software itself is an self explanatory metaphor. The word "Sound" by definition means audio and "Cloud" is a visible mass of water vapor floating in atmosphere that can be seen by people across the world. Therefore, by the definition of the name, it tells the users that the software is an open source online audio community that can be accessed worldwide. The function "Follow" is also another metaphor used by the SoundCloud software to describe the ability for user to track other artists' latest audios. The word follow means the physical movement of tracking and tailing something or someone. In this sense, follow also means to priorities one user's content over others.
  - 3. What are the main task domain objects you can create and manipulate, and which attributes do these objects have?

The main task domain objects are:

<u>User profile</u>: Tracks, Albums, Playlists, Reposts, Followers, and user bibliography.

Collection: Likes, Playlists, Albums, Stations, Follow, and History.

Home: Stream, Charts, and Discover.

Search: generic search by name. Locate and find other users/artists and songs.

- 4. What kinds of relationships exist between the conceptual model objects? Albums contain Tracks. Profiles contain albums. Collection contains profiles. Search contains profiles. Home contains user profile and collection.
  - 5. What kinds of operations are available for you to create and manipulate the domain objects, object relationships and object attributes?

<u>User profile</u>: customizable backgrounds and bibliography, upload created tracks and create albums, share music with followers, and repost interested music.

<u>Collection</u>: overview of the user's favorite songs, playlists, albums, music stations, and artists. Favorite songs can be set by "like" operations. Playlists are customizable based on users. Users can tuned into stations that they like by customizing the station list.

<u>Home</u>: The Stream operations allow users to hear the latest posts from the people they are following.

<u>Search</u>: The search object is an operation used to locate audios based on keywords, song titles, album titles, and artists name. By manipulating search words will also alter the search results.

## Part 2:

1. Can you easily determine the function of the system? How?

Yes, users can easily determine the function of the system. The main functions of SoundClouds are to upload and share audios with other users across the world, hence the metaphoric name. This system platform can provide users an online audio sharing environment/network and most of the main functions can be located at the main menu bar on the top of the page. SoundCloud allows people to discover and enjoy huge selection of music from their diverse community database.

2. Can you easily tell what actions are possible? How?

Yes, users can easily tell what actions are possible. For example, the search bar located on the top menu can be used to locate audios that the users are searching for. The main purpose of this software is to share music with others. This can easily be done by the upload button, which is also located at the top menu bar. The actions within the software can be easily figured out by using the user manual.

- 3. Can you determine the mapping from intention to physical movement? How? The mapping from intention to physical movement can be determined. The "upload" and "upgrade" actions can be located at top of system. This represents the physical movement of putting up an audio and increasing the system quality. However, most of the other functions do not have correlation to physical movement. Therefore, the mapping from most intentions does not really reflect to the physical movement.
  - 4. Can you easily perform the action(s)? How?

All the actions can be easily performed by one click of a button. For example, to upload music, users can simply perform this action by clicking the "upload" button. To find music, users can

use the search bar to type in keywords. However, some actions do required users to read the manuals for further instructions and these manuals can also be easily performed and located.

- 5. Can you easily tell if the system is in a desired state(s)? How? Users can easily tell if the system is in a desired state by judging if the system is playing the correct song or not.
- 6. Can you easily determine mapping from system state to interpenetration? How? The mapping for the system state can be easily determined. The mapping for the system state is in an universal arrangement. It is also layout based on its physical state. For example, the left button refers to backing up the track and the right button refers to forwarding the track. The play and pause buttons refer to the state the system is in.
- 7. Can you always tell what state the system is in? How? Yes in most cases, the system provides a tab at the bottom of the web page that tells the user what song is currently playing. However, if the speaker is muted and the system is not shown on the main screen, this can prevent the user to know what state the system is in.
  - 8. Overall, do you think this software suffers from the Gulf of Execution and/or the Gulf of Evaluation? Explain

The software suffers from the Gulf of Execution. The top charts and suggestions are resulted based on the user's search history and interest. The users action will determine the layout of its profile

## Part 3:

1. Overall, do you think the software offers a good conceptual model? If not, how could it be improved?

This software offers a good conceptual model. It provides users an online community network that allows people to share and promote their creations. Users can provide feedback and support to each other. However, due to the charging fees, few of the concepts provided by the models are limited and restricted until users pay the fee. For example, huge selection of tracks is restricted to paid users only. Overall, SoundCloud is a good model due to its ability to share and its simplicity to perform.

2. Does the system offer good Discoverability, in terms of helping the user figure out how to use it? How? Could this be improved, and if so, how?

Most of the system provides a good Discoverability by clearly layout its actions. The main functions of the system can be easily discovered within the system. For example, users can easily upload their music by simply clicking the upload button. Users can also search up songs by simply entering the name of the audio into the search tab. The home page clearly layout the three functions that allow users to find music. However, the top music charts should be placed first to allow user to constantly know what is the community favorite and help track new music.

3. How does the system make use of Mappings? Does it make use of appropriate mappings? If not, how could they be improved?

The system did a great job on making use of mappings for the system state. For example, the state that the system is (playing music or not) can be determined by the play/pause button. To rewind and forward the track, user can simply click the back facing triangle located on the left ref the play/pause button to rewind (meaning back) or click the forward facing triangle to forward the track. Another example is that SoundCloud placed the upload button on top of the web page. This mapping layout represents the physical movement of placing the audio file up into the online database.

4. Does the system give appropriate feedback to the user about the actions the users can make? How? If not, how could it be improved?

The system gives out feedback and hints to help users improve the quality of user experience. For example, the system provides new audios suggestions to users based on their audio and search history. When the user select an audio, the system provides a feedback by generating sound based on the audio file. The system also provides a Help Community that allows user to interact and receive feedback about the system. Another feedback this system provided is strongly correlated to the user based online community. User can share and upload their created music onto the platform and this allows other users to provide feedback related to the music.

5. Does the system leverage signifiers in its design? How? Please give two examples of signifiers and the perceived affordances they make visible.

The system provides great signifiers to help user increase their experience. For example: "Your stream is currently empty. Use Search or Chart to find music..." for new users, the system will provide a signifier that tells the user that they have an empty collection and provide suggestions to help locate audios. "Play and like tracks to show us what you like. Try Search or Charts" this signifier suggest what the user can do and where they can perform the actions. SoundCloud also provides affordances. For example, the system allows user to share their music on to the online platform. The system provides the "upload" function to afford user manually place the audio file onto the online environment. SoundCloud has the affordance to allow user to organize and manage their collection of audios.