# **Design Thinking Worksheets:**

AEIOU Design Thinking Worksheets developed by Mark Baskinger and Bruce Hanington is an interrelated framework that guides designers in thinking through a problem or scenario from a variety of perspectives: activities, environments, interactions, objects, and users. They are useful in organizing thoughts, observations, and ideas into distinct categories. AEIOU differs from our Drawing Ideas Quick-Start Worksheets in its formality and strict adherence to these five dimensions of a design space.

The AEIOU framework is credited to Rick Robinson, Ilya Prokopoff, John Cain, and Julie Pokorny, then at the Doblin Group in Chicago, in 1991. Rick Robinson then carried the framework to E-Lab LLC, where it appeared in company publicity materials in the late 1990s.



Activities are goal-directed sets of actions. What are the pathways that people take toward the things they want to accomplish, including specific actions and processes? How long do they spend doing something? Who are they doing it with?

## Activities / actions

## **General Impressions/Observations**

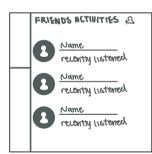
When the interfaces opens you are presented with the home page which consists of your previously looked at playlists and albums in the top section. Below you are presented with podcasts and other types of playlists that Spotify has created that they think you'll like. They have playlists based on specific artist, moods, decades and genres that you listen to. They also have daily mixes which are curated playlists based on your liked music or based on certain genres or moods. They also have the option of browsing through and discovering new music that you haven't heard before. They have playlist based on activities and Pop-culture references too. They have playlists of your top songs that you have listened to over the past year, they have a personalized playlist based on songs you like right now, songs that were your past favorites, playlists of artists that you like and they think you would also enjoy and songs from different times of your life.

### Elements, Features & Special Notes

make playlists
browse through playlists
add friends
view recently announced music

play/pause music search for specific song search by genre/ortist/album view friend activity/playlists shuffle/repeat listen to/browse podcasts
view recommendations
favourite songs/albums/playlists
connect with social media

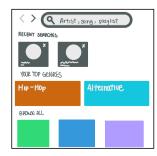
#### **Sketch Summary of Activities**

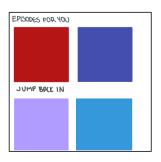


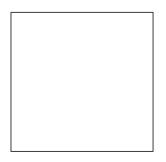














Environments include the entire arena where activities take place. For example, what describes the atmosphere and function of the context, including individual and shared spaces?

and want a quick listen, people co	sers to complete these actions; peoplemmuting, people in the hsower, people and sharing with friends, people v	eople playing music for friends, peo
Elements, Features & Special Notes		
During a workout	• •	While going for a walt
During a run	While driving	while waiting for the bus
while at a party	While cleaning	while commuting
Showing a triend songs	While getting work done	While relaxing at home
In the shower	At a concert to add a song	While sun bothering
ns: Face theme isn't able to change sts arent always accurate sts are somewhat personalized but ay to figure out what is DMCA free ay to access songs or playlists with	or not	
n opportunities: ge look or feel based on person . be more visually engaging at time	s t where you choose	

Drawing Ideas / Mark Baskinger baskinger @cmu.edu / Universal Methods of Design / Bruce Hanington hanington@cmu.edu / ©2011 \* The AEOU franework is credited to Rick Robinson, liyo Prokopolff, John Coin, and Julie Pobomy, then at the Doblin Group in Chican in 1991 Rick Behinson then cretical the francework is credited to Rick Robinson, liyo Prokopolff, John Coin, and Julie Pobomy, then at the Doblin Group in Chican in 1991 Rick Robinson then cretical the formal country.

- could have specific pages or button for DMCA
- could have filter tha filters out non DMCA
- · could have a "private tab" kind of section to be only in DMCA
- could have markers or radio buttons that turn on/off
- could add banner so user ntoices the new feature
- new feature could be a new section under search or the playlists in side bar

Interactions are between a person and someone or something else, and are the building blocks of activities. What is the nature of routine and special interactions between people, between people and objects in their environment, and across distances?

## **General Impressions/Observations**

Interactions with spotify happen tens of times in a persons day. Users often us it while commuting such as driving or taking the bus, when they are at the gym to get them motivated, when studying to help them focus, to pass some time when doing household chores or mundane tasks and when at a party to lighten the mood and elevate the party. People enjoy music a lot and they also share their music tastes with their friends by showing them a song, texting it to them, or just simply telling them to listen to it cause they love it. The interactions with spoitfy need to be simple and easy to use because users do not always have the time to filter through multitudes of music to choose what they want to play.

### Elements, Features & Special Notes

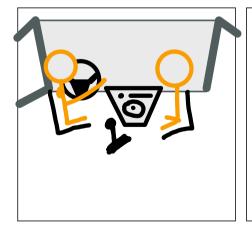
Show a friend music Support your feelings Amplify focus

Unify the people around you

Elevate a workout Bring up the energy Change mood of setting Explore new music Create a dance party

Tune out distractions Excite tedious/boring activities On the commute

#### Scenes of Interactions









Objects are the building blocks of the environment, key elements sometimes put to complex or even unintended uses, possibly changing their function, meaning and context. For example, what are the objects and devices people have in their environments, and how do these relate to their activities?

## General Impressions of the Theme, Style, Materials & Atmosphere

The interface contatins many ui objects as well as physical objects that need you to complete the interface objectives. These include objects you use to interact with the interface such as your devices, as well as objects which you lissten to the music on such as speakers or headphones. The UI has a multitude of interface objects such as toggles, buttons, icons that help users understand actions quickly, different menus, and action buttons

## **Sketch Inventory of Key Objects**



SPEAKER

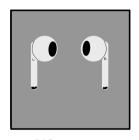




IPHONE



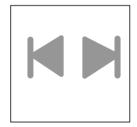
COMPUTER/LAPTOP



HEADPHONES



PLAY BUTTON



SKIP BACK / FORWARD



SHUFFLE BUTTON



REPERT BUTTON



SONG TIME BAR



SEARCH BAR



BACK FORWARD BUTTON



PLAYLISTS



GENRES



CURRATED PLAYLISTS



ACCOUNT BAR



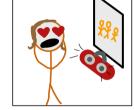
Users are the people whose behaviors, preferences, and needs are being observed. Who is present? What are their roles and relationships? What are their values and prejudices?

## **General Impressions of People in This Context**

I feel like most of everyone that I know are users of spotify (or apple which is similar). This includes people completeing activities to pass the time and want a quick listen, people commuting, people in the hsower, people playing music for friends, people who want to explore music by looking and sharing with friends, people who hear songs and want to add it.

## **Sketch Inventory of People**











GYM USER

FAN GIRL

CAMER

BOOK WORM/STUDY-ER

MUSIC ENTHUSIEST

#### **Sketch Scenes of Users in Context**

